

New York State Department of Environmental
Conservation – Division of Environmental
Remediation

TIOGA CASTINGS SITE SEMI- ANNUAL REPORT

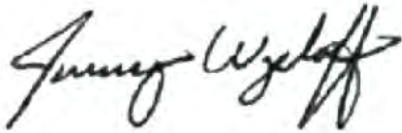
Fourth Quarter 2018

December 2018

A large, solid orange geometric shape, resembling a stylized triangle or a section of a larger triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangles, creating a complex, angular form. A thin white line runs diagonally through the shape, and a horizontal white line intersects it near the bottom.



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Associate Vice President



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Project Geologist

TIOGA CASTINGS SITE SEMI-ANNUAL REPORT

Fourth Quarter 2018

Prepared for:

New York State Department of
Environmental Conservation
Division of Environmental Remediation
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December 2018

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CONTENTS

1	Introduction	1
2	Site Description.....	2
3	Operation and Maintenance	3
3.1	Landfill Security	3
3.2	Landfill Cap Maintenance	3
4	Groundwater Monitoring Program	4
4.1	Groundwater Monitoring Well Inspection	4
4.2	Water Level Measurements	4
4.3	Groundwater Sampling	4
4.4	Groundwater Sampling Results.....	5
5	Summary	6
6	References	8

TABLES

Table 4-1	Summary of Groundwater Elevations
Table 4-2	Summary of Groundwater Sampling Results-Metals

FIGURES

Figure 2-1	Site Location
Figure 2-2	Site Features
Figure 4-1	Potentiometric Surface – October 18, 2018

APPENDICES

Appendix A	Operation and Maintenance Check List
Appendix B	Site Photographs
Appendix C	Groundwater Sampling Purge Logs
Appendix D	Groundwater Level Data Form

Tioga Castings Site Semi-Annual Report

Appendix E	Analytical Data Package

1 INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) has issued a Work Assignment (# D004443-8) to Arcadis CE, Inc. (Arcadis), for Operation, Maintenance, and Monitoring at the Tioga Castings Site (NYSDEC site number 7-54-012) in New York State. This Semi-Annual Report has been prepared in accordance with the NYSDEC-approved Site Management Plan (SMP) to summarize fourth quarter 2018 operation and maintenance (O&M) activities.

2 SITE DESCRIPTION

The Tioga Castings site is located on Foundry Street, Owego, Broome County, New York (Figure 2-1). The former foundry buildings have been razed, leaving the concrete slabs in-place. A capped, closed landfill is present at the western end of the site. In August 2011, the boundaries of the site (originally encompassing approximately seven acres) were reduced by the NYSDEC to only include the approximately one-acre landfill (Figure 2-2).

3 OPERATION AND MAINTENANCE

Operation and Maintenance (O&M) activities were performed on October 18, 2018 in accordance with the SMP. A Post Closure O&M Checklist (Appendix A) was used to document the status of the landfill. Photographs taken during the inspection are provided in Appendix B. The next O&M event is scheduled to be performed during the second quarter 2018.

3.1 Landfill Security

The landfill perimeter fence, entry gate, and locks were inspected for proper operation and signs of deterioration. As indicated in the O&M Checklist, no problems were observed with the integrity of these components. In addition, the Foundry Street entry gate warning sign was in place and in acceptable condition.

3.2 Landfill Cap Maintenance

A visual inspection of the landfill cap was performed to assess the landfill for burrowing rodents, erosion, woody vegetation, and settlement. As shown on the O&M Checklist (Appendix A) and site photographs (Appendix B), the condition of the landfill cap appeared to be in acceptable condition, however, dead brush was identified in drainage ditches around the perimeter.

4 GROUNDWATER MONITORING PROGRAM

Groundwater samples are collected on a five-quarter sampling interval in accordance with the SMP. Groundwater sampling was conducted on October 18, 2018 to provide information on groundwater quality, monitor contaminant migration in groundwater, and assess hydrogeologic site conditions, including groundwater flow. Samples were collected from monitoring wells using a peristaltic pump in accordance with USEPA low-flow sampling techniques. The next groundwater sampling event is scheduled to occur during the first quarter 2020.

4.1 Groundwater Monitoring Well Inspection

The integrity of each well was inspected, and the results recorded on a groundwater sampling purge log (Appendix C). As indicated on the purge logs, the monitoring wells are in acceptable condition and no significant problems were reported.

4.2 Water Level Measurements

Prior to collecting groundwater samples, water levels were measured to the nearest hundredth of a foot and recorded on a groundwater level data form (Appendix D). Monitoring well locations are presented on Figure 2-2.

Table 4-1 summarizes the groundwater levels and elevations from the site. As shown in Table 4-1, groundwater elevations ranged from 786.61 (MW-9) feet above mean sea level (amsl) to 790.25 (MW-4) feet amsl. Table 4-1 shows that the groundwater elevations measured in 2018 are 2.7 feet higher than in 2017.

A potentiometric surface map is presented on Figure 4-1. As shown on Figure 4-1, the direction of groundwater flow in the vicinity of the landfill is generally toward the east.

4.3 Groundwater Sampling

Groundwater samples were collected from four groundwater monitoring wells (MW-3D, MW-4, MW-6, and MW-9) using low-flow groundwater purging and sampling procedures in accordance with the SMP.

Prior to collecting groundwater samples, pH, conductivity, turbidity, dissolved oxygen (DO), temperature, and oxidation-reduction potential (REDOX) were measured using a YSI Quarto water quality meter and recorded on groundwater sampling purge logs. Groundwater sampling purge logs are presented in Appendix C.

Groundwater samples were submitted to Test America – Buffalo by chain-of-custody procedures and analyzed for Target Analyte List (TAL) metals by United States Environmental Protection Agency (USEPA) Method 6010C, and dissolved metals and mercury via USEPA Methods 6010C and 7470A, respectively. The analytical data package is provided in Appendix E.

4.4 Groundwater Sampling Results

Groundwater sample results are summarized in Table 4-2 and Table 4-3.

As shown in Table 4-2, sodium in MW-6 (29,500 ug/L) exceeded the corresponding NYSDEC Class GA Standard of 20,000 ug/L.

No other metals were detected at concentrations greater than the applicable NYSDEC Class GA Standards.

5 RECOMMENDATIONS

Based on the data presented herein, there are no recommended changes to site operations or monitoring at this time.

6 SUMMARY

Landfill O&M activities were conducted in accordance with the SMP during the fourth quarter 2018. No significant issues were reported with the condition of the perimeter fence or the condition of the landfill. The next O&M event is scheduled for the second quarter 2018.

Groundwater monitoring wells were in acceptable condition. The direction of groundwater flow in the vicinity of the landfill is toward the east. Sodium was the only metal detected in a groundwater sample collected from MW-6 at a concentration greater than the applicable NYSDEC Class GA Standards. Sodium will continue to be monitored during the next sampling event in 2018.

7 REFERENCES

Arcadis 2015. Site Management Plan, Tioga Castings Site, Oswego, Tioga County, NY. Site Number 7-54-012. January 2015.

TABLES



Table 4-1
Summary of Groundwater Elevations
Owego, New York
NYSDEC Site No. 7-54-012

Well	Measuring Point Elevation (feet)	2/5/2015		5/16/2016		8/28/2017		10/18/2018	
		DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)	DTW (feet)	Elevation (feet)
MW-3D	812.42 (2)	18.36	794.06	17.18	795.24	18.08	794.34	15.51	796.91
MW-4	806.33 (1)	11.70	794.63	10.86	795.47	11.49	794.84	9.13	797.20
MW-6	815.53 (3)	21.51	794.02	20.03	795.50	21.21	794.32	18.29	797.24
MW-9	809.97 (4)	16.37	793.60	15.17	794.80	16.23	793.74	13.30	796.67

(1) - Source: Monitoring Plan: Tioga Casting (NYSDEC, April 25, 2005)

(2) - From Malcolm Pirnie, Inc. level survey performed 10/28/2010

(3) - From Malcolm Pirnie, Inc. level survey performed 2/28/2011

(4) - From Malcolm Pirnie, Inc. level survey performed 11/10/2014

Table 4-2
Summary of Groundwater Sample Results - Metals
Tioga Castings Site
Owego, New York
NYSDEC Site Number 7-54-012

Well Date Units	NYSDEC Class GA Standards	MW-3D 4/13/2009 ug/L	MW-3D 3/18/2010 ug/L	MW-3D 10/28/2010 ug/L	MW-3D 2/28/2011 ug/L	MW-3D 7/19/2012 ug/L	MW-3D 10/14/2013 ug/L	MW-3D 2/5/2015 ug/L	MW-3D 5/16/2016 ug/L	MW-3D 8/28/2017 ug/L	MW-3D 10/18/2018 ug/L
Aluminum		668	39.8 U	11.7 J	250.0 U	200.0 U	310	200 U	200 U	678	60 U
Antimony	3	6.7 U	6.8 U	8.0 U	15.0 U	20.0 U	20.0 U	20 U	20 U	20 U	6.8 U
Arsenic	25	3.0 U	5.6 U	4.2 U	15.0 U	10.0 U	10.0 U	15 U	15 U	15 U	5.6 U
Barium	1000	39.2 B	45.3 BE	56.7	43.6	51.0	46.0	39	40	54.3 J	56
Beryllium	3*	0.5 U	0.2 U	0.7 U	5.0 U	2.0 U	2.0 U	2 U	2 U	2 U	0.3 U
Cadmium	5 [10]	0.3 U	0.3 U	0.5 U	5.0 U	1.0 U	1.0 U	2 U	2 U	4 U	0.5 U
Calcium		42300	50000	54000	48600	55200	45800	44400	43400 B	49200	49,000
Chromium	50 [50]	3.8 B	0.9 U	1.1 U	5.0 U	1.6 JE	4.0 U	4 U	4 U	10 U	1 U
Cobalt		3.8 U	0.6 U	5.8 U	5.0 U	4.0 U	4.0 U	4 U	4 U	50 U	0.63 U
Copper	200	56.6	1.3 U	2.3 J	10.0 U	10.0 U	10.0 U	10 U	10 U	25 U	1.6 U
Iron	300	558	19.3 U	52.9	24.4 J	26.0 J	390	50 U	46 BJ	1210	19 U
Lead	25 [25]	1.4 U	3.0 U	4.6 J	15.0 U	5.0 U	5.0 U	10 U	10 U	10 U	3 U
Magnesium		7490	9120	9680	9120	10000	8800	8800	8700	9110	8,900
Manganese	300	40.3 B	0.9 BE	2.2 J	1.2 J	2.4 JE	21.0	0.8 J	1.8 J	71.3	0.62 JB
Mercury	0.7	NA	0.1 U	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U
Nickel	100	3.9 B	1.3 U	4.2 U	5.0 U	10.0 U	10.0 U	10 U	10 U	40 U	1.3 U
Potassium		1550 B	1610 BE	1490	1260	1500	1400	1200	1300	1510 J	1,700
Selenium	10	11.4 U	8.7 U	4.8 U	38.0 U	15.0 U	15.0 U	25 U	25 U	20 U	8.7 U
Silver	50	2.2 U	1.2 U	1.5 U	5.0 U	3.0 U	3.0 U	6 U	6 U	10 U	1.7 U
Sodium	20000	17300	16900	17400	15600	18400	15700	15400	15200	15900	19,900
Thallium	0.5*	3.0 U	10.2 U	2.4 U	15.0 U	20.0 U	20.0 U	20 U	20 U	20 U	10 U
Vanadium		4.7 U	1.1 U	6.1 U	5.0 U	5.0 U	5.0 U	5 U	5 U	50 U	1.5 U
Zinc	2000*	13.5 U	1.5 U	14.5 J	25.0 U	1.9 J	3.6 J	1.9 J	10 U	30 U	2.5 JB

Notes:

* - NYSDEC Guidance Value.
1 - Duplicate sample from MW-4
U - Analyte not detected.
J - Greater than the MDL but below the CRDL
B - Greater than MDL but less than RL.
MDL - Method detection limit.
RL - Reporting limit.
E - Estimated value.
[25] - Site-specific cleanup goal.

Table 4-2
Summary of Groundwater Sample Results - Metals
Tioga Castings Site
Owego, New York
NYSDEC Site Number 7-54-012

Well Date Units	NYSDEC Class GA Standards	MW-4 8/2/2007 ug/L	MW-4 7/17/2008 ug/L	MW-4 4/13/2009 ug/L	MW-4 3/18/2010 ug/L	MW-4 10/28/2010 ug/L	MW-4 2/28/2011 ug/L	MW-4 7/19/2012 ug/L	MW-4 10/14/2013 ug/L	MW-4 2/5/2015 ug/L	MW-4 5/16/2016 ug/L	MW-4 8/28/2017 ug/L	DUP ¹ 8/28/2017 ug/L	MW-4 10/18/2018 ug/L	DUP 10/18/2018 ug/L
Aluminum		40.0 U	32.6 B	754	39.8 U	10.6 J	26.6 J	200.0 U	200.0 U	200 U	150 J	139 J	200 U	60 U	60 U
Antimony	3	5.6 U	5.5 U	6.7 U	6.8 U	8.0 U	15.0 U	20.0 U	20.0 U	20 U	20 U	20 U	20 U	6.8 U	6.8 U
Arsenic	25	4.2 U	3.7 U	3.0 U	5.6 U	4.2 U	15.0 U	10.0 U	10.0 U	15 U	15 U	15 U	15 U	5.6 U	5.6 U
Barium	1000	40.0 B	38.3 B	60.9 B	42.6 BE	50.3	40.8	48.0	43.0	40	60	48.4 J	47.6 J	53 U	55
Beryllium	3*	0.27 U	0.3 U	0.5 U	0.2 U	0.7 U	5.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	2 U	0.3 U	0.3 U
Cadmium	5 [10]	0.36 U	0.7 B	0.3 U	0.5 BE	0.5 U	1.7 J	1.0 U	1.0 U	2.0 U	1 J	4 U	4 U	0.5 U	0.5 U
Calcium		42700 E	42400	40500	48000	47900	43100	50900	46000	42300	42000 B	47300	47400	48,800	50,300
Chromium	50 [50]	0.84 U	0.9 U	3.4 B	0.9 U	1.1 U	5.0 U	1.6 J B	4.0 U	1.1 J B	4 U	10 U	10 U	1 U	1 U
Cobalt		0.89 U	1.1 U	3.8 U	0.6 U	5.8 U	5.0 U	4.0 U	4.0 U	4.0 U	4 U	50 U	50 U	6.3 U	0.63 U
Copper	200	1.4 B	1.3 U	49.7	1.3 U	2.0 U	10.0 U	10.0 U	10.0 U	10 U	3.9 J	25 U	25 U	1.6 U	1.6 U
Iron	300	47.6 B	34 B	667	22.2 BE	33.4 J	57.3 J	50.0 U	34.0 J	70	380 B	185	150 U	19 U	22 J
Lead	25 [25]	2.9 U	2.9 U	1.4 U	3.0 U	2.6 U	15.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	3 U	3 U
Magnesium		8190 E	7830	7080	8820	8390	8140	9400	8800	8700	8500	8790	8790	8,600	8,900
Manganese	300	0.79 B	1.2 B	79.4	1.5 BE	2.0 J	2.2 J	0.7 J B	1.6 J	2.3 J	7.4	6.3 J	15 U	0.65 J B	0.71 J B
Mercury	0.7	0.12 U	0.1 U	NA	0.1 U	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U
Nickel	100	1.2 U	1.0 U	4.5 B	1.3 U	4.2 U	1.5 J	10.0 U	10.0 U	10 U	1.9 J	40 U	40 U	1.3 U	1.3 U
Potassium		1020 BE	1860 B	1190 B	1130 BE	1230	1330	1300	1100	1100	23300	1260 J	1190 J	1,400	1,500
Selenium	10	6.1 U	6.1 U	11.4 U	8.7 U	4.8 U	38.0 U	15.0 U	15.0 U	25 U	25 U	20 U	20 U	8.7 U	8.7 U
Silver	50	1.0 U	1.3 U	2.2 U	1.2 U	1.5 U	5.0 U	2.7 J	3.0 U	6.0 U	6 U	10 U	10 U	1.7 U	1.7 U
Sodium	20000	12000 E	12800	15200	16100	15000	13900	17400	15700	14600	25700	15500	15600	16,200	16,500
Thallium	0.5*	7.0 U	5.9 U	3.0 U	10.2 U	2.4 U	15.0 U	20.0 U	20.0 U	20 U	20 U	20 U	20 U	10 U	10 U
Vanadium		0.78 U	1.0 U	4.7 U	1.1 U	6.1 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	50 U	50 U	1.5 U	1.5 U
Zinc	2000*	3.6 U	3.6 U	13.5 U	1.5 U	6.5 U	25.0 U	1.5 J	10.0 U	2.3 J	3 J	30 U	30 U	2 J B	3.5 J B

Notes:

* - NYSDEC Guidance Value.
1 - Duplicate sample from MW-4
U - Analyte not detected.
J - Greater than the MDL but below the CRDL
B - Greater than MDL but less than RL.
MDL - Method detection limit.
RL - Reporting limit.
E - Estimated value.
[25] - Site-specific cleanup goal.

Table 4-2
Summary of Groundwater Sample Results - Metals
Tioga Castings Site
Owego, New York
NYSDEC Site Number 7-54-012

Well Date Units	NYSDEC Class GA Standards	MW-6 2/28/2011 ug/L	MW-6 7/24/2012 ug/L	MW-6 10/14/2013 ug/L	MW-6 2/6/2015 ug/L	MW-6 5/16/2016 ug/L	MW-6 8/28/2017 ug/L	MW-6 10/18/2018 ug/L
Aluminum		49.5 J	520.0	310.0	360	200 U	240	60 U
Antimony	3	15.0 U	20.0 U	20.0 U	20 U	20 U	20 U	6.8 U
Arsenic	25	15.0 U	10.0 U	10.0 U	15 U	15 U	15 U	5.6 U
Barium	1000	53.1	61.0	62.0	70	54	73.6 J	63
Beryllium	3*	5.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U	0.3 U
Cadmium	5 [10]	5.0 U	1.0 U	1.0 U	2.0 U	2 U	4 U	0.5 U
Calcium		54200	73500	54200	78700	48600 B	68900	56,300
Chromium	50 [50]	5.0 U	2.7 J E	4.0 U	4.0 U	4 U	10 U	1 U
Cobalt		5.0 U	4.0 U	4.0 U	4.0 U	4 U	50 U	0.63 U
Copper	200	10.0 U	10.0 U	10.0 U	10 U	10 U	25 U	1.6 U
Iron	300	98.8 J	670.0	330.0	350	120 B	404	19 U
Lead	25 [25]	15.0 U	5.0 U	5.0 U	10 U	10 U	10 U	3 U
Magnesium		9280	11300	10100	13200	9500	11700	9,400
Manganese	300	7.5 J	36.0 B	15.0	20	2.8 J	24.1	0.4 U
Mercury	0.7	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U
Nickel	100	5.0 U	10.0 U	10.0 U	10 U	10.0 U	40.0 U	1.3 U
Potassium		2090.0	2300	2000	2400	2000	2310 J	2,600
Selenium	10	38.0 U	15.0 U	15.0 U	25 U	25 U	20 U	8.7 U
Silver	50	5 U	3.0 U	3.0 U	6.0 U	6 U	10 U	1.7 U
Sodium	20000	21900	26900	22400	22100	19900	26600	29,500
Thallium	0.5*	15.0 U	20.0 U	20.0 U	20 U	20 U	20 U	10 U
Vanadium		5 U	5.0 U	5.0 U	5.0 U	5 U	50 U	1.5 U
Zinc	2000*	25.0 U	4.6 J	2.8 J	3.2 J	10 U	30 U	1.6 JB

Notes:

* - NYSDEC Guidance Value.

1 - Duplicate sample from MW-4

U - Analyte not detected.

J - Greater than the MDL but below the CRDL

B - Greater than MDL but less than RL.

MDL - Method detection limit.

RL - Reporting limit.

E - Estimated value.

[25] - Site-specific cleanup goal.

Table 4-2
Summary of Groundwater Sample Results - Metals
Tioga Castings Site
Owego, New York
NYSDEC Site Number 7-54-012

Well Date Units	NYSDEC Class GA Standards	MW-9 2/5/2015 ug/L	MW-9 5/16/2016 ug/L	MW-9 8/28/2017 ug/L	MW-9 10/18/2018 ug/L
Aluminum		3000	810	1600	60 U
Antimony	3	20 U	20 U	20 U	6.8 U
Arsenic	25	15 U	15 U	15 U	5.6 U
Barium	1000	110	86	110 J	93
Beryllium	3*	2.0 U	2.0 U	2.0 U	0.3 U
Cadmium	5 [10]	2.0 U	2.0 U	4.0 U	0.5 U
Calcium		70600	74800 B	85300	89,600
Chromium	50 [50]	3.8 JB	1.6 J	10.0 U	1 U
Cobalt		4.0 U	4.0 U	50.0 U	0.63 U
Copper	200	5.1 J	2.2 J	25.0 U	1.6 U
Iron	300	2500	1100 B	2700	44 J
Lead	25 [25]	10 J	3 J	10 U	3 U
Magnesium		12100	11500	12500	12,000
Manganese	300	140	55	115	1.9 JB
Mercury	0.7	0.2 U	0.2 U	0.2 U	0.12 U
Nickel	100	2.5 J	1.9 J	40.0 U	1.3 U
Potassium		4800	5700	4940 J	4,600
Selenium	10	25 U	25 U	20 U	8.7 U
Silver	50	6.0 U	6.0 U	10.0 U	1.7 U
Sodium	20000	8000	7100	7510	6,100
Thallium	0.5*	20.0 U	20.0 U	20.0 U	10 U
Vanadium		4.5 J	1.9 J	2.7 J	1.5 U
Zinc	2000*	13	4 J	30 U	3.2 JB

Notes:

* - NYSDEC Guidance Value.

1 - Duplicate sample from MW-4

U - Analyte not detected.

J - Greater than the MDL but below the CRDL

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MDL - Method detection limit.

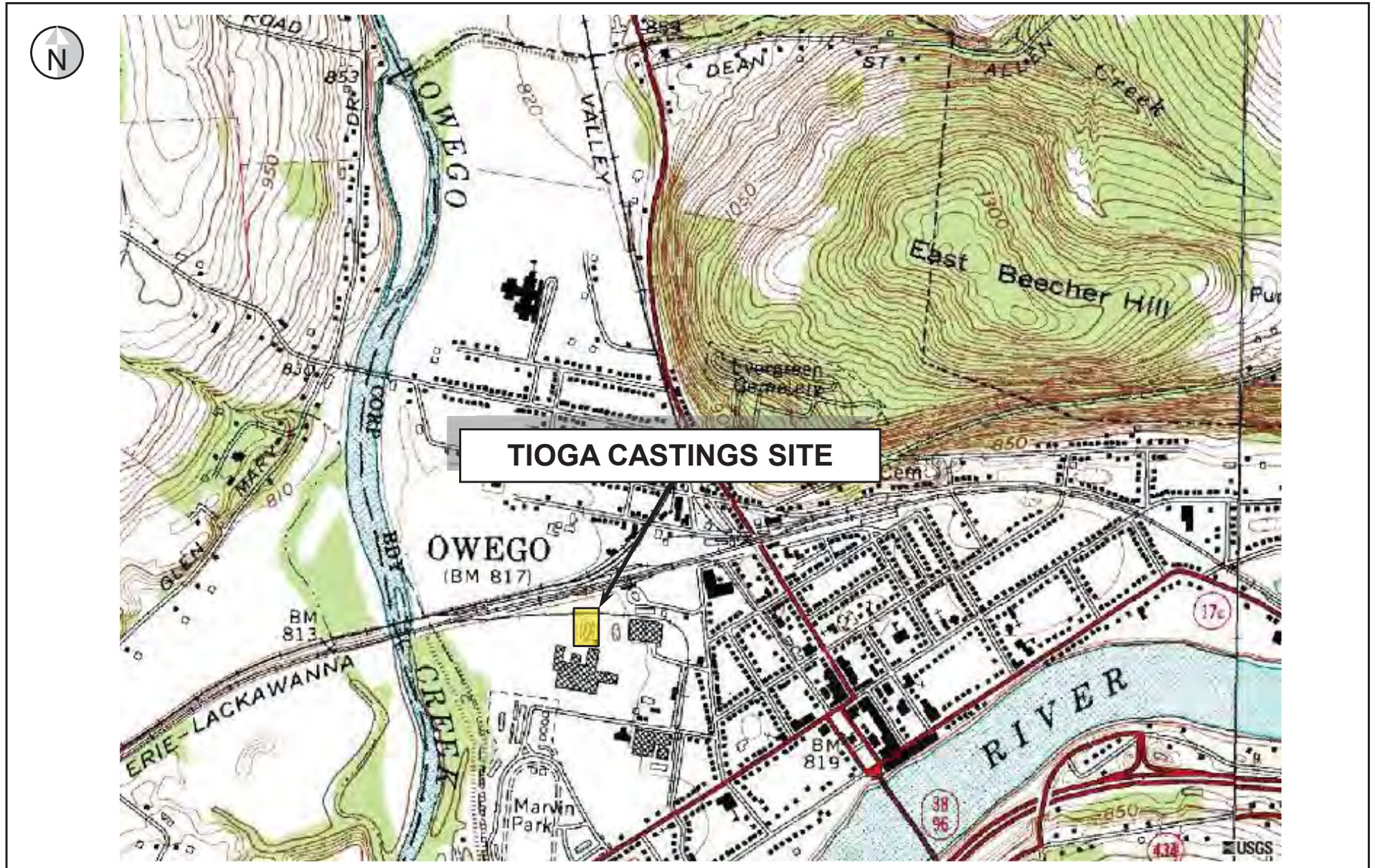
RL - Reporting limit.

E - Estimated value.

[25] - Site-specific cleanup goal.

FIGURES





Source: USGS 7.5-minute Series Topographic Quadrangle, OWEGO (1990).

G:\GIS\MO00266403_0000\Site Map.mxd
G:\PROJECT\00266403_0000\Reports\4th Qtr 2014 drilling\Figure 2-2.pdf



Legend

- Monitoring Well
- Abandoned Well
- Former Casting Facility
- On-Site Landfill/Site Boundary
- Approximate Parcel Boundary

Note: Site feature boundaries are approximate.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SITE NUMBER 754012

Tioga Casting Facility, Owego, New York

SITE FEATURES



FIGURE
2-2



Legend

- Monitoring Well
- Abandoned Well
- Former Casting Facility
- On-Site Landfill/Site Boundary
- Approximate Parcel Boundary
- Groundwater Potentiometric Contour
- 794.63 Feet Above Mean Sea Level

0 60 120 240 360 480 Feet



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SITE NUMBER 754012	
Tioga Casting Facility, Owego, New York	
POTENTIOMETRIC MAP October 18, 2018	
	FIGURE 4-1

Note: Site feature boundaries are approximate.

APPENDIX A

Operation and Maintenance Check List



TIOGA CASTINGS SITE LANDFILL

Post-Closure Operation and Maintenance Checklist

Inspected by: Jasmine Mullins

Date: 10/18/2018 Time: 1410

Weather Conditions: Sunny, 40°F.

LANDFILL COVER SYSTEM

Erosion	<u> </u>	YES	<u> X </u>	NO
Holes or Cracks in Cover	<u> </u>	YES	<u> X </u>	NO
Cap Settlement	<u> </u>	YES	<u> X </u>	NO
Ponded Water or Wet Areas	<u> </u>	YES	<u> X </u>	NO
Burrowing Rodents	<u> </u>	YES	<u> X </u>	NO
Sparse Vegetation/Bare Soil	<u> </u>	YES	<u> X </u>	NO
Brush or Other Woody Vegetation,	<u> </u>	YES	<u> X </u>	NO
Excessive Weeds in Grass	<u> </u>	YES	<u> X </u>	NO
Grass Mowed	<u> X </u>	YES	<u> </u>	NO

DRAINAGE DITCHES

Erosion	<u> </u>	YES	<u> X </u>	NO
Obstructions	<u> </u>	YES	<u> X </u>	NO
Sediment Accumulation	<u> </u>	YES	<u> X </u>	NO
Evidence of Surcharging	<u> </u>	YES	<u> X </u>	NO
Presence of Brush	<u> X </u>	YES	<u> </u>	NO

Comments: Dead brush roots identified in drainage ditches.

Continued

FENCING

Warning Signs	<u> X </u>	OK	<u> </u>	OTHER
Gates and Locks	<u> X </u>	OK	<u> </u>	OTHER
Posts	<u> X </u>	OK	<u> </u>	OTHER
Top Tension Wire	<u> X </u>	OK	<u> </u>	OTHER
Barbed Wire	<u> X </u>	OK	<u> </u>	OTHER

Comments: _____

MONITORING WELLS

Capped and Locked	<u> X </u>	YES	<u> </u>	NO
Casing Damage	<u> </u>	YES	<u> X </u>	NO

Comments: _____

INSPECTOR'S SIGNATURE

Jasmine Mullins

DATE 10/18/2018

APPENDIX B

Site Photographs



Appendix B - Project Photographs

Tioga Castings Site
Owego, New York
Site Number 7-54-012



Photo: 1

Date:
October 18, 2018

Description:
Center of Landfill Cap – Facing
Northeast



Photo: 2

Date:
October 18, 2018

Description:
Center of Landfill Cap – Facing
Northwest

Appendix B - Project Photographs

Tioga Castings Site
Owego, New York
Site Number 7-54-012



Photo: 3

Date:

October 18, 2018

Description:

Center of Landfill Cap – Facing
Southeast



Photo: 4

Date:

October 18, 2018

Description:

Center of Landfill Cap – Facing
Southwest

Appendix B - Project Photographs

Tioga Castings Site
Owego, New York
Site Number 7-54-012



Photo: 5

Date:

October 18, 2018

Description:

East Side of Landfill – Facing
North



Photo: 6

Date:

October 18, 2018

Description:

North Side of Landfill – Facing
West

Appendix B - Project Photographs

Tioga Castings Site
Owego, New York
Site Number 7-54-012



Photo: 7

Date:
October 18, 2018

Description:
West Side of Landfill – Facing
South



Photo: 8

Date:
October 18, 2018

Description:
South Side of Landfill – Facing
East

Appendix B - Project Photographs

Tioga Castings Site
Owego, New York
Site Number 7-54-012



Photo: 9

Date:
October 18, 2018

Description:
MW-3D



Photo: 10

Date:
October 18, 2018

Description:
MW-4

Appendix B - Project Photographs

Tioga Castings Site
Owego, New York
Site Number 7-54-012



Photo: 11

Date:
October 18, 2018

Description:
MW-6



Photo: 12

Date:
October 18, 2018

Description:
MW-9

APPENDIX C

Groundwater Sampling Purge Logs



WELL NUMBER: MW-3D **DATE:** 10/18/2018
PROJECT NAME: Tioga Castings
PROJECT NUMBER: 00266403.0000
SAMPLERS: J. Mullins

A: Total Casing and Screen Length: 25.13'
 B: Casing Internal Diameter: 2"
 C: Water Level Below Top of Casing: 15.51
 D: Volume of Water in Casing: 1.54 gallons

$$v = 0.0408 (B)^2 \times (A-C) = D$$

$$v = 0.0408 (\quad)^2 \times (\quad - \quad) = \quad \text{gal.}$$

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1200	1205	1210	1215	1220	1225	1230					
Gallons	0.00	0.25	0.50	0.75	1.00	1.25	1.50					
Depth to Water (ft)	15.52	15.52	15.52	15.52	15.52	15.52	15.53					
pH	6.94	6.51	6.51	6.52	6.53	6.54	6.54					
Conductivity (mS/cm)	0.463	0.466	0.468	0.468	0.469	0.469	0.468					
Turbidity (NTU)	2.39	2.01	1.85	1.62	1.40	1.35	1.33					
Dissolved Oxygen (mg/l)	6.47	5.03	5.02	5.04	5.02	5.00	4.99					
Temperature (°C)	10.89	11.17	11.25	11.3	11.33	11.34	11.34					
Redox (mV)	171	181	181	181	180	180	180					

Notes: Sample collected at 1230.

WELL NUMBER: MW-4 **DATE:** 10/18/2018
PROJECT NAME: Tioga Castings
PROJECT NUMBER: 00266403.0000
SAMPLERS: J. Mullins

A: Total Casing and Screen Length: 16.08'
 B: Casing Internal Diameter: 2"
 C: Water Level Below Top of Casing: 9.13
 D: Volume of Water in Casing: 1.11 gallons

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$v = 0.0408 (B)^2 \times (A-C) = D$$

$$v = 0.0408 (\quad)^2 \times (\quad - \quad) = \quad \text{gal.}$$

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1104	1109	1114	1119	1124	1129	1134					
Gallons	0.00	0.25	0.50	0.75	1.00	1.25	1.50					
Depth to Water (ft)	9.14	9.14	9.14	9.15	9.15	9.15	9.16					
pH	6.97	6.51	6.51	6.51	6.51	6.52	6.52					
Conductivity (mS/cm)	0.434	0.420	0.418	0.418	0.419	0.420	0.420					
Turbidity (NTU)	4.97	3.21	2.59	1.13	1.00	1.00	1.00					
Dissolved Oxygen (mg/l)	6.52	5.43	5.25	5.26	5.23	5.22	5.21					
Temperature (°C)	12.23	13.37	13.56	13.58	13.64	13.67	13.67					
Redox (mV)	157	172	174	176	179	180	181					

Notes: Sample collected at 1335 and DUP-1-20181018 collected here.

WELL NUMBER: MW-6 **DATE:** 10/18/2018
PROJECT NAME: Tioga Castings
PROJECT NUMBER: 00266403.0000
SAMPLERS: J. Mullins
A: Total Casing and Screen Length: 27.28'
B: Casing Internal Diameter: 2"
C: Water Level Below Top of Casing: 18.29
D: Volume of Water in Casing: 0.97 gallons

$$v = 0.0408 (B)^2 \times (A-C) = D$$

$$v = 0.0408 (\quad)^2 \times (\quad - \quad) = \quad \text{gal.}$$

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1008	1013	1018	1023	1028	1033	1038					
Gallons	0.00	0.25	0.50	0.75	1.00	1.25	1.50					
Depth to Water (ft)	18.31	18.31	18.31	18.31	18.31	18.31	18.31					
pH	5.91	6.37	6.41	6.44	6.45	6.45	6.45					
Conductivity (mS/cm)	0.558	0.535	0.529	0.524	0.523	0.524	0.524					
Turbidity (NTU)	2.08	1.54	1.03	0.92	0.91	0.90	0.90					
Dissolved Oxygen (mg/l)	4.94	4.54	4.46	4.34	4.32	4.31	4.30					
Temperature (°C)	14.03	13.97	14.03	14.08	14.09	14.08	14.08					
Redox (mV)	191	175	173	172	173	173	173					

Notes: Sample collected at 1040.

WELL NUMBER: MW-9 **DATE:** 10/18/2018
PROJECT NAME: Tioga Castings
PROJECT NUMBER: 00266403.0000
SAMPLERS: J. Mullins

A: Total Casing and Screen Length: 23.36'
 B: Casing Internal Diameter: 2"
 C: Water Level Below Top of Casing: 13.25
 D: Volume of Water in Casing: 1.61 gallons

$$v = 0.0408 (B)^2 \times (A-C) = D$$

$$v = 0.0408 (\quad)^2 \times (\quad - \quad) = \quad \text{gal.}$$

Well I.D.	Vol. Gal./ft.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETER	ACCUMULATED VOLUME PURGED											
Time	1330	1335	1340	1345	1350	1355	1400					
Gallons	0.00	0.25	0.50	0.75	1.00	1.25	1.50					
Depth to Water (ft)	13.26	13.26	13.26	13.26	13.27	13.27	13.27					
pH	6.60	6.58	6.58	6.58	6.57	6.58	6.58					
Conductivity (mS/cm)	0.583	0.578	0.575	0.572	0.571	0.57	0.57					
Turbidity (NTU)	7.82	5.15	3.92	2.11	1.98	1.94	1.92					
Dissolved Oxygen (mg/l)	3.40	1.80	1.76	1.74	1.72	1.70	1.70					
Temperature (°C)	12.09	12.67	13.15	13.60	13.6	13.64	13.63					
Redox (mV)	177	170	165	160	159	158	157					

Notes: Sample collected at 1400.

APPENDIX D

Groundwater Level Data Form



DATE: 10/18/2018
PERSONNEL: J. Mullins

[illegible]

NM - Not Measured
TOC - Top of Casing

APPENDIX E

Analytical Data Package



ANALYTICAL REPORT

Job Number: 480-143899-1

Job Description: NYSDEC-Standby TIOGA CASTINGS

For:
ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, NY 12065
Attention: Mr. Jeremy Wyckoff



Approved for release.
Judy L. Stone
Senior Project Manager
11/9/2018 9:29 AM

Judy L. Stone, Senior Project Manager
10 Hazelwood Drive, Amherst, NY, 14228-2298
(484)685-0868
judy.stone@testamericainc.com
11/09/2018

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NYDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1



Table of Contents

Cover Title Page	1
Data Summaries	4
Report Narrative	4
Sample Summary	5
Detection Summary	6
Method Summary	8
Client Sample Results	9
QC Sample Results	16
Definitions	23
QC Association	24
Chronicle	27
Certification Summary	29
Inorganic Sample Data	30
Metals Data	30
Met Cover Page	31
Met Sample Data	32
Met QC Data	42
Met ICV/CCV	42
Met Blanks	59
Met ICSA/ICSAB	70
Met MS/MSD/PDS	76
Met LCS/LCSD	82
Met Serial Dilution	89
Met MDL	93
Met IECF	103
Met Linear Ranges	108

Table of Contents

Met Preparation Log	111
Met Analysis Run Log	115
Met ICP/MS Int Stds	131
Met Raw Data	134
Met Prep Data	2964
Shipping and Receiving Documents	2972
Client Chain of Custody	2973
Sample Receipt Checklist	2974

Job Narrative
480-143899-1

Receipt

The samples were received on 10/20/2018 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

Metals

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

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-143899-1	MW-3D	Water	10/18/18 12:30	10/20/18 01:00
480-143899-2	MW-4	Water	10/18/18 11:35	10/20/18 01:00
480-143899-3	MW-6	Water	10/18/18 10:40	10/20/18 01:00
480-143899-4	MW-9	Water	10/18/18 14:00	10/20/18 01:00
480-143899-5	DUP-1-20181004	Water	10/18/18 00:00	10/20/18 01:00

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-3D

Lab Sample ID: 480-143899-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	0.056		0.0020	0.00070	mg/L	1			6010C	Total/NA
Calcium	49.0		0.50	0.10	mg/L	1			6010C	Total/NA
Magnesium	8.9		0.20	0.043	mg/L	1			6010C	Total/NA
Manganese	0.00062	J B	0.0030	0.00040	mg/L	1			6010C	Total/NA
Potassium	1.7		0.50	0.10	mg/L	1			6010C	Total/NA
Sodium	19.9		1.0	0.32	mg/L	1			6010C	Total/NA
Zinc	0.0025	J B	0.010	0.0015	mg/L	1			6010C	Total/NA
Barium	0.051		0.0020	0.00070	mg/L	1			6010C	Dissolved
Calcium	47.3		0.50	0.10	mg/L	1			6010C	Dissolved
Magnesium	8.3		0.20	0.043	mg/L	1			6010C	Dissolved
Potassium	1.6		0.50	0.10	mg/L	1			6010C	Dissolved
Sodium	17.5		1.0	0.32	mg/L	1			6010C	Dissolved
Zinc	0.0043	J B	0.010	0.0015	mg/L	1			6010C	Dissolved

Client Sample ID: MW-4

Lab Sample ID: 480-143899-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	0.053		0.0020	0.00070	mg/L	1			6010C	Total/NA
Calcium	48.8		0.50	0.10	mg/L	1			6010C	Total/NA
Magnesium	8.6		0.20	0.043	mg/L	1			6010C	Total/NA
Manganese	0.00065	J B	0.0030	0.00040	mg/L	1			6010C	Total/NA
Potassium	1.4		0.50	0.10	mg/L	1			6010C	Total/NA
Sodium	16.2		1.0	0.32	mg/L	1			6010C	Total/NA
Zinc	0.0020	J B	0.010	0.0015	mg/L	1			6010C	Total/NA
Barium	0.051		0.0020	0.00070	mg/L	1			6010C	Dissolved
Calcium	48.2		0.50	0.10	mg/L	1			6010C	Dissolved
Magnesium	8.4		0.20	0.043	mg/L	1			6010C	Dissolved
Manganese	0.00058	J	0.0030	0.00040	mg/L	1			6010C	Dissolved
Potassium	1.4		0.50	0.10	mg/L	1			6010C	Dissolved
Sodium	15.0		1.0	0.32	mg/L	1			6010C	Dissolved
Zinc	0.0097	J B	0.010	0.0015	mg/L	1			6010C	Dissolved

Client Sample ID: MW-6

Lab Sample ID: 480-143899-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	0.063		0.0020	0.00070	mg/L	1			6010C	Total/NA
Calcium	56.3		0.50	0.10	mg/L	1			6010C	Total/NA
Magnesium	9.4		0.20	0.043	mg/L	1			6010C	Total/NA
Potassium	2.6		0.50	0.10	mg/L	1			6010C	Total/NA
Sodium	29.5		1.0	0.32	mg/L	1			6010C	Total/NA
Zinc	0.0016	J B	0.010	0.0015	mg/L	1			6010C	Total/NA
Barium	0.060		0.0020	0.00070	mg/L	1			6010C	Dissolved
Calcium	54.5		0.50	0.10	mg/L	1			6010C	Dissolved
Magnesium	9.0		0.20	0.043	mg/L	1			6010C	Dissolved
Potassium	2.5		0.50	0.10	mg/L	1			6010C	Dissolved
Sodium	27.1		1.0	0.32	mg/L	1			6010C	Dissolved
Zinc	0.0055	J B	0.010	0.0015	mg/L	1			6010C	Dissolved

Client Sample ID: MW-9

Lab Sample ID: 480-143899-4

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-9 (Continued)

Lab Sample ID: 480-143899-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	0.093		0.0020	0.00070	mg/L	1			6010C	Total/NA
Calcium	89.6		0.50	0.10	mg/L	1			6010C	Total/NA
Iron	0.044	J	0.050	0.019	mg/L	1			6010C	Total/NA
Magnesium	12.0		0.20	0.043	mg/L	1			6010C	Total/NA
Manganese	0.0019	J B	0.0030	0.00040	mg/L	1			6010C	Total/NA
Potassium	4.6		0.50	0.10	mg/L	1			6010C	Total/NA
Sodium	6.1		1.0	0.32	mg/L	1			6010C	Total/NA
Zinc	0.0032	J B	0.010	0.0015	mg/L	1			6010C	Total/NA
Barium	0.087		0.0020	0.00070	mg/L	1			6010C	Dissolved
Calcium	85.5		0.50	0.10	mg/L	1			6010C	Dissolved
Magnesium	11.2		0.20	0.043	mg/L	1			6010C	Dissolved
Potassium	4.4		0.50	0.10	mg/L	1			6010C	Dissolved
Sodium	5.6		1.0	0.32	mg/L	1			6010C	Dissolved
Zinc	0.0068	J B	0.010	0.0015	mg/L	1			6010C	Dissolved

Client Sample ID: DUP-1-20181004

Lab Sample ID: 480-143899-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	0.055		0.0020	0.00070	mg/L	1			6010C	Total/NA
Calcium	50.3		0.50	0.10	mg/L	1			6010C	Total/NA
Iron	0.022	J	0.050	0.019	mg/L	1			6010C	Total/NA
Magnesium	8.9		0.20	0.043	mg/L	1			6010C	Total/NA
Manganese	0.00071	J B	0.0030	0.00040	mg/L	1			6010C	Total/NA
Potassium	1.5		0.50	0.10	mg/L	1			6010C	Total/NA
Sodium	16.5		1.0	0.32	mg/L	1			6010C	Total/NA
Zinc	0.0035	J B	0.010	0.0015	mg/L	1			6010C	Total/NA
Barium	0.053		0.0020	0.00070	mg/L	1			6010C	Dissolved
Calcium	48.0		0.50	0.10	mg/L	1			6010C	Dissolved
Iron	0.058		0.050	0.019	mg/L	1			6010C	Dissolved
Magnesium	8.4		0.20	0.043	mg/L	1			6010C	Dissolved
Manganese	0.00054	J	0.0030	0.00040	mg/L	1			6010C	Dissolved
Potassium	1.4		0.50	0.10	mg/L	1			6010C	Dissolved
Sodium	15.0		1.0	0.32	mg/L	1			6010C	Dissolved
Zinc	0.0037	J B	0.010	0.0015	mg/L	1			6010C	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL BUF
FILTRATION	Sample Filtration	None	TAL BUF

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-3D

Date Collected: 10/18/18 12:30

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-1

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/24/18 08:29	10/31/18 19:05	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/24/18 08:29	10/31/18 19:05	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/24/18 08:29	11/02/18 11:34	1
Barium	0.056		0.0020	0.00070	mg/L		10/24/18 08:29	10/31/18 19:05	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/24/18 08:29	10/31/18 19:05	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/24/18 08:29	10/31/18 19:05	1
Calcium	49.0		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:05	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/24/18 08:29	10/31/18 19:05	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/24/18 08:29	10/31/18 19:05	1
Copper	0.010	U	0.010	0.0016	mg/L		10/24/18 08:29	10/31/18 19:05	1
Iron	0.050	U	0.050	0.019	mg/L		10/24/18 08:29	10/31/18 19:05	1
Lead	0.010	U	0.010	0.0030	mg/L		10/24/18 08:29	10/31/18 19:05	1
Magnesium	8.9		0.20	0.043	mg/L		10/24/18 08:29	10/31/18 19:05	1
Manganese	0.00062	J B	0.0030	0.00040	mg/L		10/24/18 08:29	10/31/18 19:05	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/24/18 08:29	10/31/18 19:05	1
Potassium	1.7		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:05	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/24/18 08:29	10/31/18 19:05	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/24/18 08:29	10/31/18 19:05	1
Sodium	19.9		1.0	0.32	mg/L		10/24/18 08:29	10/31/18 19:05	1
Thallium	0.020	U	0.020	0.010	mg/L		10/24/18 08:29	10/31/18 19:05	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/24/18 08:29	10/31/18 19:05	1
Zinc	0.0025	J B	0.010	0.0015	mg/L		10/24/18 08:29	10/31/18 19:05	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/25/18 12:22	10/26/18 14:43	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/25/18 12:22	10/26/18 14:43	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/25/18 12:22	10/26/18 14:43	1
Barium	0.051		0.0020	0.00070	mg/L		10/25/18 12:22	10/26/18 14:43	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/25/18 12:22	10/26/18 14:43	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/25/18 12:22	10/26/18 14:43	1
Calcium	47.3		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 14:43	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/25/18 12:22	10/26/18 14:43	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/25/18 12:22	10/26/18 14:43	1
Copper	0.010	U	0.010	0.0016	mg/L		10/25/18 12:22	10/26/18 14:43	1
Iron	0.050	U	0.050	0.019	mg/L		10/25/18 12:22	10/26/18 14:43	1
Lead	0.010	U	0.010	0.0030	mg/L		10/25/18 12:22	10/26/18 14:43	1
Magnesium	8.3		0.20	0.043	mg/L		10/25/18 12:22	10/26/18 14:43	1
Manganese	0.0030	U	0.0030	0.00040	mg/L		10/25/18 12:22	10/26/18 14:43	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/25/18 12:22	10/26/18 14:43	1
Potassium	1.6		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 14:43	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/25/18 12:22	10/26/18 14:43	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/25/18 12:22	10/26/18 14:43	1
Sodium	17.5		1.0	0.32	mg/L		10/25/18 12:22	10/26/18 14:43	1
Thallium	0.020	U	0.020	0.010	mg/L		10/25/18 12:22	10/26/18 14:43	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/25/18 12:22	10/26/18 14:43	1
Zinc	0.0043	J B	0.010	0.0015	mg/L		10/25/18 12:22	10/26/18 14:43	1

TestAmerica Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-3D

Date Collected: 10/18/18 12:30

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-1

Matrix: Water

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/24/18 11:50	10/24/18 16:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/29/18 12:15	10/29/18 16:01	1

Client Sample ID: MW-4

Date Collected: 10/18/18 11:35

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-2

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/24/18 08:29	10/31/18 19:35	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/24/18 08:29	10/31/18 19:35	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/24/18 08:29	11/02/18 11:52	1
Barium	0.053		0.0020	0.00070	mg/L		10/24/18 08:29	10/31/18 19:35	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/24/18 08:29	10/31/18 19:35	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/24/18 08:29	10/31/18 19:35	1
Calcium	48.8		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:35	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/24/18 08:29	10/31/18 19:35	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/24/18 08:29	10/31/18 19:35	1
Copper	0.010	U	0.010	0.0016	mg/L		10/24/18 08:29	10/31/18 19:35	1
Iron	0.050	U	0.050	0.019	mg/L		10/24/18 08:29	10/31/18 19:35	1
Lead	0.010	U	0.010	0.0030	mg/L		10/24/18 08:29	10/31/18 19:35	1
Magnesium	8.6		0.20	0.043	mg/L		10/24/18 08:29	10/31/18 19:35	1
Manganese	0.00065	J B	0.0030	0.00040	mg/L		10/24/18 08:29	10/31/18 19:35	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/24/18 08:29	10/31/18 19:35	1
Potassium	1.4		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:35	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/24/18 08:29	10/31/18 19:35	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/24/18 08:29	10/31/18 19:35	1
Sodium	16.2		1.0	0.32	mg/L		10/24/18 08:29	10/31/18 19:35	1
Thallium	0.020	U	0.020	0.010	mg/L		10/24/18 08:29	10/31/18 19:35	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/24/18 08:29	10/31/18 19:35	1
Zinc	0.0020	J B	0.010	0.0015	mg/L		10/24/18 08:29	10/31/18 19:35	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/25/18 12:22	10/26/18 15:01	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/25/18 12:22	10/26/18 15:01	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/25/18 12:22	10/26/18 15:01	1
Barium	0.051		0.0020	0.00070	mg/L		10/25/18 12:22	10/26/18 15:01	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/25/18 12:22	10/26/18 15:01	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/25/18 12:22	10/26/18 15:01	1
Calcium	48.2		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 15:01	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/25/18 12:22	10/26/18 15:01	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/25/18 12:22	10/26/18 15:01	1
Copper	0.010	U	0.010	0.0016	mg/L		10/25/18 12:22	10/26/18 15:01	1
Iron	0.050	U	0.050	0.019	mg/L		10/25/18 12:22	10/26/18 15:01	1
Lead	0.010	U	0.010	0.0030	mg/L		10/25/18 12:22	10/26/18 15:01	1
Magnesium	8.4		0.20	0.043	mg/L		10/25/18 12:22	10/26/18 15:01	1

TestAmerica Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-4
Date Collected: 10/18/18 11:35
Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-2
Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.00058	J	0.0030	0.00040	mg/L		10/25/18 12:22	10/26/18 15:01	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/25/18 12:22	10/26/18 15:01	1
Potassium	1.4		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 15:01	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/25/18 12:22	10/26/18 15:01	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/25/18 12:22	10/26/18 15:01	1
Sodium	15.0		1.0	0.32	mg/L		10/25/18 12:22	10/26/18 15:01	1
Thallium	0.020	U	0.020	0.010	mg/L		10/25/18 12:22	10/26/18 15:01	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/25/18 12:22	10/26/18 15:01	1
Zinc	0.0097	J B	0.010	0.0015	mg/L		10/25/18 12:22	10/26/18 15:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/24/18 11:50	10/24/18 16:25	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/29/18 12:15	10/29/18 16:09	1

Client Sample ID: MW-6
Date Collected: 10/18/18 10:40
Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-3
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/24/18 08:29	10/31/18 19:39	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/24/18 08:29	10/31/18 19:39	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/24/18 08:29	11/02/18 12:06	1
Barium	0.063		0.0020	0.00070	mg/L		10/24/18 08:29	10/31/18 19:39	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/24/18 08:29	10/31/18 19:39	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/24/18 08:29	10/31/18 19:39	1
Calcium	56.3		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:39	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/24/18 08:29	10/31/18 19:39	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/24/18 08:29	10/31/18 19:39	1
Copper	0.010	U	0.010	0.0016	mg/L		10/24/18 08:29	10/31/18 19:39	1
Iron	0.050	U	0.050	0.019	mg/L		10/24/18 08:29	10/31/18 19:39	1
Lead	0.010	U	0.010	0.0030	mg/L		10/24/18 08:29	10/31/18 19:39	1
Magnesium	9.4		0.20	0.043	mg/L		10/24/18 08:29	10/31/18 19:39	1
Manganese	0.0030	U	0.0030	0.00040	mg/L		10/24/18 08:29	10/31/18 19:39	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/24/18 08:29	10/31/18 19:39	1
Potassium	2.6		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:39	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/24/18 08:29	10/31/18 19:39	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/24/18 08:29	10/31/18 19:39	1
Sodium	29.5		1.0	0.32	mg/L		10/24/18 08:29	10/31/18 19:39	1
Thallium	0.020	U	0.020	0.010	mg/L		10/24/18 08:29	10/31/18 19:39	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/24/18 08:29	10/31/18 19:39	1
Zinc	0.0016	J B	0.010	0.0015	mg/L		10/24/18 08:29	10/31/18 19:39	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/25/18 12:22	10/26/18 15:05	1

TestAmerica Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-6
Date Collected: 10/18/18 10:40
Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-3
Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.020	U	0.020	0.0068	mg/L		10/25/18 12:22	10/26/18 15:05	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/25/18 12:22	10/26/18 15:05	1
Barium	0.060		0.0020	0.00070	mg/L		10/25/18 12:22	10/26/18 15:05	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/25/18 12:22	10/26/18 15:05	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/25/18 12:22	10/26/18 15:05	1
Calcium	54.5		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 15:05	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/25/18 12:22	10/26/18 15:05	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/25/18 12:22	10/26/18 15:05	1
Copper	0.010	U	0.010	0.0016	mg/L		10/25/18 12:22	10/26/18 15:05	1
Iron	0.050	U	0.050	0.019	mg/L		10/25/18 12:22	10/26/18 15:05	1
Lead	0.010	U	0.010	0.0030	mg/L		10/25/18 12:22	10/26/18 15:05	1
Magnesium	9.0		0.20	0.043	mg/L		10/25/18 12:22	10/26/18 15:05	1
Manganese	0.0030	U	0.0030	0.00040	mg/L		10/25/18 12:22	10/26/18 15:05	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/25/18 12:22	10/26/18 15:05	1
Potassium	2.5		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 15:05	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/25/18 12:22	10/26/18 15:05	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/25/18 12:22	10/26/18 15:05	1
Sodium	27.1		1.0	0.32	mg/L		10/25/18 12:22	10/26/18 15:05	1
Thallium	0.020	U	0.020	0.010	mg/L		10/25/18 12:22	10/26/18 15:05	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/25/18 12:22	10/26/18 15:05	1
Zinc	0.0055	J B	0.010	0.0015	mg/L		10/25/18 12:22	10/26/18 15:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/24/18 11:50	10/24/18 16:27	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/29/18 12:15	10/29/18 16:10	1

Client Sample ID: MW-9
Date Collected: 10/18/18 14:00
Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-4
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/24/18 08:29	10/31/18 19:43	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/24/18 08:29	10/31/18 19:43	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/24/18 08:29	11/02/18 12:10	1
Barium	0.093		0.0020	0.00070	mg/L		10/24/18 08:29	10/31/18 19:43	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/24/18 08:29	10/31/18 19:43	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/24/18 08:29	10/31/18 19:43	1
Calcium	89.6		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:43	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/24/18 08:29	10/31/18 19:43	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/24/18 08:29	10/31/18 19:43	1
Copper	0.010	U	0.010	0.0016	mg/L		10/24/18 08:29	10/31/18 19:43	1
Iron	0.044	J	0.050	0.019	mg/L		10/24/18 08:29	10/31/18 19:43	1
Lead	0.010	U	0.010	0.0030	mg/L		10/24/18 08:29	10/31/18 19:43	1
Magnesium	12.0		0.20	0.043	mg/L		10/24/18 08:29	10/31/18 19:43	1
Manganese	0.0019	J B	0.0030	0.00040	mg/L		10/24/18 08:29	10/31/18 19:43	1

TestAmerica Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-9
Date Collected: 10/18/18 14:00
Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-4
Matrix: Water

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.010	U	0.010	0.0013	mg/L	—	10/24/18 08:29	10/31/18 19:43	1
Potassium	4.6		0.50	0.10	mg/L	—	10/24/18 08:29	10/31/18 19:43	1
Selenium	0.025	U	0.025	0.0087	mg/L	—	10/24/18 08:29	10/31/18 19:43	1
Silver	0.0060	U	0.0060	0.0017	mg/L	—	10/24/18 08:29	10/31/18 19:43	1
Sodium	6.1		1.0	0.32	mg/L	—	10/24/18 08:29	10/31/18 19:43	1
Thallium	0.020	U	0.020	0.010	mg/L	—	10/24/18 08:29	10/31/18 19:43	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L	—	10/24/18 08:29	10/31/18 19:43	1
Zinc	0.0032	J B	0.010	0.0015	mg/L	—	10/24/18 08:29	10/31/18 19:43	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Antimony	0.020	U	0.020	0.0068	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Arsenic	0.015	U	0.015	0.0056	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Barium	0.087		0.0020	0.00070	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Calcium	85.5		0.50	0.10	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Chromium	0.0040	U	0.0040	0.0010	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Copper	0.010	U	0.010	0.0016	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Iron	0.050	U	0.050	0.019	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Lead	0.010	U	0.010	0.0030	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Magnesium	11.2		0.20	0.043	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Manganese	0.0030	U	0.0030	0.00040	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Nickel	0.010	U	0.010	0.0013	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Potassium	4.4		0.50	0.10	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Selenium	0.025	U	0.025	0.0087	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Silver	0.0060	U	0.0060	0.0017	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Sodium	5.6		1.0	0.32	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Thallium	0.020	U	0.020	0.010	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L	—	10/25/18 12:22	10/26/18 15:20	1
Zinc	0.0068	J B	0.010	0.0015	mg/L	—	10/25/18 12:22	10/26/18 15:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L	—	10/24/18 11:50	10/24/18 16:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L	—	10/29/18 12:15	10/29/18 16:11	1

Client Sample ID: DUP-1-20181004
Date Collected: 10/18/18 00:00
Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-5
Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L	—	10/24/18 08:29	10/31/18 19:46	1
Antimony	0.020	U	0.020	0.0068	mg/L	—	10/24/18 08:29	10/31/18 19:46	1

TestAmerica Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: DUP-1-20181004

Lab Sample ID: 480-143899-5

Date Collected: 10/18/18 00:00

Matrix: Water

Date Received: 10/20/18 01:00

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.015	U	0.015	0.0056	mg/L		10/24/18 08:29	11/02/18 12:14	1
Barium	0.055		0.0020	0.00070	mg/L		10/24/18 08:29	10/31/18 19:46	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/24/18 08:29	10/31/18 19:46	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/24/18 08:29	10/31/18 19:46	1
Calcium	50.3		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:46	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/24/18 08:29	10/31/18 19:46	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/24/18 08:29	10/31/18 19:46	1
Copper	0.010	U	0.010	0.0016	mg/L		10/24/18 08:29	10/31/18 19:46	1
Iron	0.022	J	0.050	0.019	mg/L		10/24/18 08:29	10/31/18 19:46	1
Lead	0.010	U	0.010	0.0030	mg/L		10/24/18 08:29	10/31/18 19:46	1
Magnesium	8.9		0.20	0.043	mg/L		10/24/18 08:29	10/31/18 19:46	1
Manganese	0.00071	J B	0.0030	0.00040	mg/L		10/24/18 08:29	10/31/18 19:46	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/24/18 08:29	10/31/18 19:46	1
Potassium	1.5		0.50	0.10	mg/L		10/24/18 08:29	10/31/18 19:46	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/24/18 08:29	10/31/18 19:46	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/24/18 08:29	10/31/18 19:46	1
Sodium	16.5		1.0	0.32	mg/L		10/24/18 08:29	10/31/18 19:46	1
Thallium	0.020	U	0.020	0.010	mg/L		10/24/18 08:29	10/31/18 19:46	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/24/18 08:29	10/31/18 19:46	1
Zinc	0.0035	J B	0.010	0.0015	mg/L		10/24/18 08:29	10/31/18 19:46	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/25/18 12:22	10/26/18 15:24	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/25/18 12:22	10/26/18 15:24	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/25/18 12:22	10/26/18 15:24	1
Barium	0.053		0.0020	0.00070	mg/L		10/25/18 12:22	10/26/18 15:24	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/25/18 12:22	10/26/18 15:24	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/25/18 12:22	10/26/18 15:24	1
Calcium	48.0		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 15:24	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/25/18 12:22	10/26/18 15:24	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/25/18 12:22	10/26/18 15:24	1
Copper	0.010	U	0.010	0.0016	mg/L		10/25/18 12:22	10/26/18 15:24	1
Iron	0.058		0.050	0.019	mg/L		10/25/18 12:22	10/26/18 15:24	1
Lead	0.010	U	0.010	0.0030	mg/L		10/25/18 12:22	10/26/18 15:24	1
Magnesium	8.4		0.20	0.043	mg/L		10/25/18 12:22	10/26/18 15:24	1
Manganese	0.00054	J	0.0030	0.00040	mg/L		10/25/18 12:22	10/26/18 15:24	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/25/18 12:22	10/26/18 15:24	1
Potassium	1.4		0.50	0.10	mg/L		10/25/18 12:22	10/26/18 15:24	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/25/18 12:22	10/26/18 15:24	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/25/18 12:22	10/26/18 15:24	1
Sodium	15.0		1.0	0.32	mg/L		10/25/18 12:22	10/26/18 15:24	1
Thallium	0.020	U	0.020	0.010	mg/L		10/25/18 12:22	10/26/18 15:24	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/25/18 12:22	10/26/18 15:24	1
Zinc	0.0037	J B	0.010	0.0015	mg/L		10/25/18 12:22	10/26/18 15:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/24/18 11:50	10/24/18 16:29	1

TestAmerica Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: DUP-1-20181004

Date Collected: 10/18/18 00:00

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-5

Matrix: Water

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/29/18 12:15	10/29/18 16:13	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-441218/1-A
Matrix: Water
Analysis Batch: 442964

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 441218

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/24/18 08:29	10/31/18 17:52	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/24/18 08:29	10/31/18 17:52	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/24/18 08:29	10/31/18 17:52	1
Barium	0.0020	U	0.0020	0.00070	mg/L		10/24/18 08:29	10/31/18 17:52	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/24/18 08:29	10/31/18 17:52	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/24/18 08:29	10/31/18 17:52	1
Calcium	0.50	U	0.50	0.10	mg/L		10/24/18 08:29	10/31/18 17:52	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/24/18 08:29	10/31/18 17:52	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/24/18 08:29	10/31/18 17:52	1
Copper	0.010	U	0.010	0.0016	mg/L		10/24/18 08:29	10/31/18 17:52	1
Iron	0.050	U	0.050	0.019	mg/L		10/24/18 08:29	10/31/18 17:52	1
Lead	0.010	U	0.010	0.0030	mg/L		10/24/18 08:29	10/31/18 17:52	1
Magnesium	0.20	U	0.20	0.043	mg/L		10/24/18 08:29	10/31/18 17:52	1
Manganese	0.000630	J	0.0030	0.00040	mg/L		10/24/18 08:29	10/31/18 17:52	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/24/18 08:29	10/31/18 17:52	1
Potassium	0.50	U	0.50	0.10	mg/L		10/24/18 08:29	10/31/18 17:52	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/24/18 08:29	10/31/18 17:52	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/24/18 08:29	10/31/18 17:52	1
Sodium	1.0	U	1.0	0.32	mg/L		10/24/18 08:29	10/31/18 17:52	1
Thallium	0.020	U	0.020	0.010	mg/L		10/24/18 08:29	10/31/18 17:52	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/24/18 08:29	10/31/18 17:52	1
Zinc	0.00232	J	0.010	0.0015	mg/L		10/24/18 08:29	10/31/18 17:52	1

Lab Sample ID: LCS 480-441218/2-A
Matrix: Water
Analysis Batch: 442964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 441218

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.64		mg/L		96	80 - 120
Antimony	0.200	0.188		mg/L		94	80 - 120
Arsenic	0.200	0.189		mg/L		95	80 - 120
Barium	0.200	0.197		mg/L		99	80 - 120
Beryllium	0.200	0.206		mg/L		103	80 - 120
Cadmium	0.200	0.192		mg/L		96	80 - 120
Calcium	10.0	9.76		mg/L		98	80 - 120
Chromium	0.200	0.203		mg/L		102	80 - 120
Cobalt	0.200	0.190		mg/L		95	80 - 120
Copper	0.200	0.196		mg/L		98	80 - 120
Iron	10.0	10.16		mg/L		102	80 - 120
Lead	0.200	0.190		mg/L		95	80 - 120
Magnesium	10.0	9.88		mg/L		99	80 - 120
Manganese	0.200	0.203		mg/L		102	80 - 120
Nickel	0.200	0.206		mg/L		103	80 - 120
Potassium	10.0	9.25		mg/L		92	80 - 120
Selenium	0.200	0.191		mg/L		95	80 - 120
Silver	0.0500	0.0479		mg/L		96	80 - 120
Sodium	10.0	9.56		mg/L		95	80 - 120
Thallium	0.200	0.193		mg/L		96	80 - 120

TestAmerica Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-441218/2-A
Matrix: Water
Analysis Batch: 442964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 441218
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Vanadium	0.200	0.205		mg/L		103	80 - 120
Zinc	0.200	0.204		mg/L		102	80 - 120

Lab Sample ID: LCSD 480-441218/24-A
Matrix: Water
Analysis Batch: 442964

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 441218
%Rec. RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	10.0	9.76		mg/L		98	80 - 120	1	20
Antimony	0.200	0.179		mg/L		89	80 - 120	5	20
Barium	0.200	0.198		mg/L		99	80 - 120	1	20
Beryllium	0.200	0.201		mg/L		101	80 - 120	2	20
Cadmium	0.200	0.184		mg/L		92	80 - 120	4	20
Calcium	10.0	9.48		mg/L		95	80 - 120	3	20
Chromium	0.200	0.200		mg/L		100	80 - 120	1	20
Cobalt	0.200	0.185		mg/L		92	80 - 120	2	20
Copper	0.200	0.190		mg/L		95	80 - 120	3	20
Iron	10.0	9.92		mg/L		99	80 - 120	2	20
Lead	0.200	0.186		mg/L		93	80 - 120	3	20
Magnesium	10.0	9.61		mg/L		96	80 - 120	3	20
Manganese	0.200	0.199		mg/L		99	80 - 120	2	20
Nickel	0.200	0.202		mg/L		101	80 - 120	2	20
Potassium	10.0	9.32		mg/L		93	80 - 120	1	20
Selenium	0.200	0.186		mg/L		93	80 - 120	3	20
Silver	0.0500	0.0465		mg/L		93	80 - 120	3	20
Sodium	10.0	9.64		mg/L		96	80 - 120	1	20
Thallium	0.200	0.185		mg/L		93	80 - 120	4	20
Vanadium	0.200	0.200		mg/L		100	80 - 120	3	20
Zinc	0.200	0.199		mg/L		99	80 - 120	3	20

Lab Sample ID: LCSD 480-441218/24-A
Matrix: Water
Analysis Batch: 443344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 441218
%Rec. RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.200	0.205		mg/L		103	80 - 120	2	20

Lab Sample ID: 480-143899-1 MS
Matrix: Water
Analysis Batch: 442964

Client Sample ID: MW-3D
Prep Type: Total/NA
Prep Batch: 441218
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aluminum	0.20	U	10.0	9.89		mg/L		99	75 - 125
Antimony	0.020	U	0.200	0.183		mg/L		92	75 - 125
Barium	0.056		0.200	0.255		mg/L		100	75 - 125
Beryllium	0.0020	U	0.200	0.204		mg/L		102	75 - 125
Cadmium	0.0020	U	0.200	0.187		mg/L		94	75 - 125
Calcium	49.0		10.0	58.41	4	mg/L		94	75 - 125
Chromium	0.0040	U	0.200	0.200		mg/L		100	75 - 125

TestAmerica Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-143899-1 MS

Matrix: Water

Analysis Batch: 442964

Client Sample ID: MW-3D

Prep Type: Total/NA

Prep Batch: 441218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cobalt	0.0040	U	0.200	0.187		mg/L		93	75 - 125
Copper	0.010	U	0.200	0.191		mg/L		96	75 - 125
Iron	0.050	U	10.0	9.89		mg/L		99	75 - 125
Lead	0.010	U	0.200	0.188		mg/L		94	75 - 125
Magnesium	8.9		10.0	18.38		mg/L		95	75 - 125
Manganese	0.00062	J B	0.200	0.197		mg/L		98	75 - 125
Nickel	0.010	U	0.200	0.203		mg/L		102	75 - 125
Potassium	1.7		10.0	11.48		mg/L		98	75 - 125
Selenium	0.025	U	0.200	0.185		mg/L		92	75 - 125
Silver	0.0060	U	0.0500	0.0487		mg/L		97	75 - 125
Sodium	19.9		10.0	30.00		mg/L		101	75 - 125
Thallium	0.020	U	0.200	0.187		mg/L		93	75 - 125
Vanadium	0.0050	U	0.200	0.203		mg/L		101	75 - 125
Zinc	0.0025	J B	0.200	0.196		mg/L		97	75 - 125

Lab Sample ID: 480-143899-1 MS

Matrix: Water

Analysis Batch: 443344

Client Sample ID: MW-3D

Prep Type: Total/NA

Prep Batch: 441218

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.015	U	0.200	0.207		mg/L		103	75 - 125

Lab Sample ID: 480-143899-1 MSD

Matrix: Water

Analysis Batch: 442964

Client Sample ID: MW-3D

Prep Type: Total/NA

Prep Batch: 441218

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	0.20	U	10.0	9.91		mg/L		99	75 - 125	0	20
Antimony	0.020	U	0.200	0.185		mg/L		92	75 - 125	1	20
Barium	0.056		0.200	0.257		mg/L		101	75 - 125	1	20
Beryllium	0.0020	U	0.200	0.205		mg/L		102	75 - 125	0	20
Cadmium	0.0020	U	0.200	0.187		mg/L		94	75 - 125	0	20
Calcium	49.0		10.0	59.67	4	mg/L		106	75 - 125	2	20
Chromium	0.0040	U	0.200	0.200		mg/L		100	75 - 125	0	20
Cobalt	0.0040	U	0.200	0.187		mg/L		93	75 - 125	0	20
Copper	0.010	U	0.200	0.192		mg/L		96	75 - 125	0	20
Iron	0.050	U	10.0	9.89		mg/L		99	75 - 125	0	20
Lead	0.010	U	0.200	0.188		mg/L		94	75 - 125	0	20
Magnesium	8.9		10.0	18.64		mg/L		98	75 - 125	1	20
Manganese	0.00062	J B	0.200	0.197		mg/L		98	75 - 125	0	20
Nickel	0.010	U	0.200	0.204		mg/L		102	75 - 125	0	20
Potassium	1.7		10.0	11.59		mg/L		99	75 - 125	1	20
Selenium	0.025	U	0.200	0.187		mg/L		94	75 - 125	1	20
Silver	0.0060	U	0.0500	0.0459		mg/L		92	75 - 125	6	20
Sodium	19.9		10.0	30.41		mg/L		105	75 - 125	1	20
Thallium	0.020	U	0.200	0.188		mg/L		94	75 - 125	0	20
Vanadium	0.0050	U	0.200	0.203		mg/L		102	75 - 125	0	20
Zinc	0.0025	J B	0.200	0.196		mg/L		97	75 - 125	0	20

TestAmerica Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-143899-1 MSD

Matrix: Water

Analysis Batch: 443344

Client Sample ID: MW-3D

Prep Type: Total/NA

Prep Batch: 441218

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.015	U	0.200	0.207		mg/L		104	75 - 125	0	20

Lab Sample ID: MB 480-441363/1-B

Matrix: Water

Analysis Batch: 442100

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 441697

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		10/25/18 12:22	10/26/18 14:35	1
Antimony	0.020	U	0.020	0.0068	mg/L		10/25/18 12:22	10/26/18 14:35	1
Arsenic	0.015	U	0.015	0.0056	mg/L		10/25/18 12:22	10/26/18 14:35	1
Barium	0.0020	U	0.0020	0.00070	mg/L		10/25/18 12:22	10/26/18 14:35	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		10/25/18 12:22	10/26/18 14:35	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		10/25/18 12:22	10/26/18 14:35	1
Calcium	0.50	U	0.50	0.10	mg/L		10/25/18 12:22	10/26/18 14:35	1
Chromium	0.0040	U	0.0040	0.0010	mg/L		10/25/18 12:22	10/26/18 14:35	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		10/25/18 12:22	10/26/18 14:35	1
Copper	0.010	U	0.010	0.0016	mg/L		10/25/18 12:22	10/26/18 14:35	1
Iron	0.050	U	0.050	0.019	mg/L		10/25/18 12:22	10/26/18 14:35	1
Lead	0.010	U	0.010	0.0030	mg/L		10/25/18 12:22	10/26/18 14:35	1
Magnesium	0.20	U	0.20	0.043	mg/L		10/25/18 12:22	10/26/18 14:35	1
Manganese	0.0030	U	0.0030	0.00040	mg/L		10/25/18 12:22	10/26/18 14:35	1
Nickel	0.010	U	0.010	0.0013	mg/L		10/25/18 12:22	10/26/18 14:35	1
Potassium	0.50	U	0.50	0.10	mg/L		10/25/18 12:22	10/26/18 14:35	1
Selenium	0.025	U	0.025	0.0087	mg/L		10/25/18 12:22	10/26/18 14:35	1
Silver	0.0060	U	0.0060	0.0017	mg/L		10/25/18 12:22	10/26/18 14:35	1
Sodium	1.0	U	1.0	0.32	mg/L		10/25/18 12:22	10/26/18 14:35	1
Thallium	0.020	U	0.020	0.010	mg/L		10/25/18 12:22	10/26/18 14:35	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		10/25/18 12:22	10/26/18 14:35	1
Zinc	0.00440	J	0.010	0.0015	mg/L		10/25/18 12:22	10/26/18 14:35	1

Lab Sample ID: LCS 480-441363/2-B

Matrix: Water

Analysis Batch: 442100

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 441697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.29		mg/L		93	80 - 120
Antimony	0.200	0.189		mg/L		94	80 - 120
Arsenic	0.200	0.193		mg/L		97	80 - 120
Barium	0.200	0.191		mg/L		96	80 - 120
Beryllium	0.200	0.192		mg/L		96	80 - 120
Cadmium	0.200	0.195		mg/L		97	80 - 120
Calcium	10.0	9.38		mg/L		94	80 - 120
Chromium	0.200	0.190		mg/L		95	80 - 120
Cobalt	0.200	0.183		mg/L		91	80 - 120
Copper	0.200	0.186		mg/L		93	80 - 120
Iron	10.0	9.47		mg/L		95	80 - 120
Lead	0.200	0.185		mg/L		92	80 - 120
Magnesium	10.0	9.32		mg/L		93	80 - 120

TestAmerica Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-441363/2-B

Matrix: Water

Analysis Batch: 442100

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 441697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	0.200	0.187		mg/L		94	80 - 120
Nickel	0.200	0.190		mg/L		95	80 - 120
Potassium	10.0	9.05		mg/L		90	80 - 120
Selenium	0.200	0.190		mg/L		95	80 - 120
Silver	0.0500	0.0465		mg/L		93	80 - 120
Sodium	10.0	9.00		mg/L		90	80 - 120
Thallium	0.200	0.185		mg/L		93	80 - 120
Vanadium	0.200	0.190		mg/L		95	80 - 120
Zinc	0.200	0.194		mg/L		97	80 - 120

Lab Sample ID: 480-143899-1 MS

Matrix: Water

Analysis Batch: 442100

Client Sample ID: MW-3D

Prep Type: Dissolved

Prep Batch: 441697

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.20	U	10.0	9.12		mg/L		91	75 - 125
Antimony	0.020	U	0.200	0.186		mg/L		93	75 - 125
Arsenic	0.015	U	0.200	0.193		mg/L		97	75 - 125
Barium	0.051		0.200	0.238		mg/L		93	75 - 125
Beryllium	0.0020	U	0.200	0.188		mg/L		94	75 - 125
Cadmium	0.0020	U	0.200	0.193		mg/L		96	75 - 125
Calcium	47.3		10.0	55.89	4	mg/L		85	75 - 125
Chromium	0.0040	U	0.200	0.182		mg/L		91	75 - 125
Cobalt	0.0040	U	0.200	0.178		mg/L		89	75 - 125
Copper	0.010	U	0.200	0.181		mg/L		91	75 - 125
Iron	0.050	U	10.0	9.11		mg/L		91	75 - 125
Lead	0.010	U	0.200	0.183		mg/L		92	75 - 125
Magnesium	8.3		10.0	17.36		mg/L		90	75 - 125
Manganese	0.0030	U	0.200	0.180		mg/L		90	75 - 125
Nickel	0.010	U	0.200	0.184		mg/L		92	75 - 125
Potassium	1.6		10.0	10.69		mg/L		90	75 - 125
Selenium	0.025	U	0.200	0.186		mg/L		93	75 - 125
Silver	0.0060	U	0.0500	0.0458		mg/L		92	75 - 125
Sodium	17.5		10.0	26.40		mg/L		89	75 - 125
Thallium	0.020	U	0.200	0.180		mg/L		90	75 - 125
Vanadium	0.0050	U	0.200	0.183		mg/L		91	75 - 125
Zinc	0.0043	J B	0.200	0.188		mg/L		92	75 - 125

Lab Sample ID: 480-143899-1 MSD

Matrix: Water

Analysis Batch: 442100

Client Sample ID: MW-3D

Prep Type: Dissolved

Prep Batch: 441697

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aluminum	0.20	U	10.0	9.22		mg/L		92	75 - 125	1	20
Antimony	0.020	U	0.200	0.186		mg/L		93	75 - 125	0	20
Arsenic	0.015	U	0.200	0.193		mg/L		97	75 - 125	0	20
Barium	0.051		0.200	0.240		mg/L		94	75 - 125	1	20
Beryllium	0.0020	U	0.200	0.190		mg/L		95	75 - 125	1	20
Cadmium	0.0020	U	0.200	0.195		mg/L		97	75 - 125	1	20

TestAmerica Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-143899-1 MSD

Matrix: Water

Analysis Batch: 442100

Client Sample ID: MW-3D

Prep Type: Dissolved

Prep Batch: 441697

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	47.3		10.0	55.76	4	mg/L		84	75 - 125	0	20
Chromium	0.0040	U	0.200	0.184		mg/L		92	75 - 125	1	20
Cobalt	0.0040	U	0.200	0.180		mg/L		90	75 - 125	1	20
Copper	0.010	U	0.200	0.183		mg/L		92	75 - 125	1	20
Iron	0.050	U	10.0	9.29		mg/L		93	75 - 125	2	20
Lead	0.010	U	0.200	0.184		mg/L		92	75 - 125	0	20
Magnesium	8.3		10.0	17.38		mg/L		91	75 - 125	0	20
Manganese	0.0030	U	0.200	0.183		mg/L		92	75 - 125	2	20
Nickel	0.010	U	0.200	0.187		mg/L		93	75 - 125	2	20
Potassium	1.6		10.0	10.76		mg/L		91	75 - 125	1	20
Selenium	0.025	U	0.200	0.188		mg/L		94	75 - 125	1	20
Silver	0.0060	U	0.0500	0.0465		mg/L		93	75 - 125	2	20
Sodium	17.5		10.0	26.37		mg/L		89	75 - 125	0	20
Thallium	0.020	U	0.200	0.183		mg/L		92	75 - 125	2	20
Vanadium	0.0050	U	0.200	0.185		mg/L		93	75 - 125	1	20
Zinc	0.0043	J B	0.200	0.192		mg/L		94	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-441391/1-A

Matrix: Water

Analysis Batch: 441545

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 441391

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/24/18 11:50	10/24/18 15:57	1

Lab Sample ID: LCS 480-441391/2-A

Matrix: Water

Analysis Batch: 441545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 441391

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00655		mg/L		98	80 - 120

Lab Sample ID: LCSD 480-441391/3-A

Matrix: Water

Analysis Batch: 441545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 441391

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00667	0.00665		mg/L		100	80 - 120	2	20

Lab Sample ID: 480-143899-1 MS

Matrix: Water

Analysis Batch: 441545

Client Sample ID: MW-3D

Prep Type: Total/NA

Prep Batch: 441391

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00667	0.00695		mg/L		104	80 - 120

TestAmerica Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 480-143899-1 MSD

Matrix: Water

Analysis Batch: 441545

Client Sample ID: MW-3D

Prep Type: Total/NA

Prep Batch: 441391

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.00020	U	0.00667	0.00705		mg/L		106	80 - 120	1	20

Lab Sample ID: MB 480-441363/1-E

Matrix: Water

Analysis Batch: 442378

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 442303

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		10/29/18 12:15	10/29/18 15:56	1

Lab Sample ID: LCS 480-441363/2-E

Matrix: Water

Analysis Batch: 442378

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 442303

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00708		mg/L		106	80 - 120

Lab Sample ID: 480-143899-1 MS

Matrix: Water

Analysis Batch: 442378

Client Sample ID: MW-3D

Prep Type: Dissolved

Prep Batch: 442303

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00667	0.00695		mg/L		104	80 - 120

Lab Sample ID: 480-143899-1 MSD

Matrix: Water

Analysis Batch: 442378

Client Sample ID: MW-3D

Prep Type: Dissolved

Prep Batch: 442303

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.00020	U	0.00667	0.00688		mg/L		103	80 - 120	1	20

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Sample result is greater than the MDL but below the CRDL
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Metals

Prep Batch: 441218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Total/NA	Water	3005A	
480-143899-2	MW-4	Total/NA	Water	3005A	
480-143899-3	MW-6	Total/NA	Water	3005A	
480-143899-4	MW-9	Total/NA	Water	3005A	
480-143899-5	DUP-1-20181004	Total/NA	Water	3005A	
MB 480-441218/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-441218/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-441218/24-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-143899-1 MS	MW-3D	Total/NA	Water	3005A	
480-143899-1 MSD	MW-3D	Total/NA	Water	3005A	

Filtration Batch: 441363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Dissolved	Water	FILTRATION	
480-143899-2	MW-4	Dissolved	Water	FILTRATION	
480-143899-3	MW-6	Dissolved	Water	FILTRATION	
480-143899-4	MW-9	Dissolved	Water	FILTRATION	
480-143899-5	DUP-1-20181004	Dissolved	Water	FILTRATION	
MB 480-441363/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 480-441363/1-E	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-441363/2-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 480-441363/2-E	Lab Control Sample	Dissolved	Water	FILTRATION	
480-143899-1 MS	MW-3D	Dissolved	Water	FILTRATION	
480-143899-1 MSD	MW-3D	Dissolved	Water	FILTRATION	

Prep Batch: 441391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Total/NA	Water	7470A	
480-143899-2	MW-4	Total/NA	Water	7470A	
480-143899-3	MW-6	Total/NA	Water	7470A	
480-143899-4	MW-9	Total/NA	Water	7470A	
480-143899-5	DUP-1-20181004	Total/NA	Water	7470A	
MB 480-441391/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-441391/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 480-441391/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	
480-143899-1 MS	MW-3D	Total/NA	Water	7470A	
480-143899-1 MSD	MW-3D	Total/NA	Water	7470A	

Analysis Batch: 441545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Total/NA	Water	7470A	441391
480-143899-2	MW-4	Total/NA	Water	7470A	441391
480-143899-3	MW-6	Total/NA	Water	7470A	441391
480-143899-4	MW-9	Total/NA	Water	7470A	441391
480-143899-5	DUP-1-20181004	Total/NA	Water	7470A	441391
MB 480-441391/1-A	Method Blank	Total/NA	Water	7470A	441391
LCS 480-441391/2-A	Lab Control Sample	Total/NA	Water	7470A	441391
LCSD 480-441391/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	441391
480-143899-1 MS	MW-3D	Total/NA	Water	7470A	441391
480-143899-1 MSD	MW-3D	Total/NA	Water	7470A	441391

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Metals (Continued)

Prep Batch: 441697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Dissolved	Water	3005A	441363
480-143899-2	MW-4	Dissolved	Water	3005A	441363
480-143899-3	MW-6	Dissolved	Water	3005A	441363
480-143899-4	MW-9	Dissolved	Water	3005A	441363
480-143899-5	DUP-1-20181004	Dissolved	Water	3005A	441363
MB 480-441363/1-B	Method Blank	Dissolved	Water	3005A	441363
LCS 480-441363/2-B	Lab Control Sample	Dissolved	Water	3005A	441363
480-143899-1 MS	MW-3D	Dissolved	Water	3005A	441363
480-143899-1 MSD	MW-3D	Dissolved	Water	3005A	441363

Analysis Batch: 442100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Dissolved	Water	6010C	441697
480-143899-2	MW-4	Dissolved	Water	6010C	441697
480-143899-3	MW-6	Dissolved	Water	6010C	441697
480-143899-4	MW-9	Dissolved	Water	6010C	441697
480-143899-5	DUP-1-20181004	Dissolved	Water	6010C	441697
MB 480-441363/1-B	Method Blank	Dissolved	Water	6010C	441697
LCS 480-441363/2-B	Lab Control Sample	Dissolved	Water	6010C	441697
480-143899-1 MS	MW-3D	Dissolved	Water	6010C	441697
480-143899-1 MSD	MW-3D	Dissolved	Water	6010C	441697

Prep Batch: 442303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Dissolved	Water	7470A	441363
480-143899-2	MW-4	Dissolved	Water	7470A	441363
480-143899-3	MW-6	Dissolved	Water	7470A	441363
480-143899-4	MW-9	Dissolved	Water	7470A	441363
480-143899-5	DUP-1-20181004	Dissolved	Water	7470A	441363
MB 480-441363/1-E	Method Blank	Dissolved	Water	7470A	441363
LCS 480-441363/2-E	Lab Control Sample	Dissolved	Water	7470A	441363
480-143899-1 MS	MW-3D	Dissolved	Water	7470A	441363
480-143899-1 MSD	MW-3D	Dissolved	Water	7470A	441363

Analysis Batch: 442378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Dissolved	Water	7470A	442303
480-143899-2	MW-4	Dissolved	Water	7470A	442303
480-143899-3	MW-6	Dissolved	Water	7470A	442303
480-143899-4	MW-9	Dissolved	Water	7470A	442303
480-143899-5	DUP-1-20181004	Dissolved	Water	7470A	442303
MB 480-441363/1-E	Method Blank	Dissolved	Water	7470A	442303
LCS 480-441363/2-E	Lab Control Sample	Dissolved	Water	7470A	442303
480-143899-1 MS	MW-3D	Dissolved	Water	7470A	442303
480-143899-1 MSD	MW-3D	Dissolved	Water	7470A	442303

Analysis Batch: 442964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Total/NA	Water	6010C	441218
480-143899-2	MW-4	Total/NA	Water	6010C	441218
480-143899-3	MW-6	Total/NA	Water	6010C	441218

TestAmerica Buffalo

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Metals (Continued)

Analysis Batch: 442964 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-4	MW-9	Total/NA	Water	6010C	441218
480-143899-5	DUP-1-20181004	Total/NA	Water	6010C	441218
MB 480-441218/1-A	Method Blank	Total/NA	Water	6010C	441218
LCS 480-441218/2-A	Lab Control Sample	Total/NA	Water	6010C	441218
LCSD 480-441218/24-A	Lab Control Sample Dup	Total/NA	Water	6010C	441218
480-143899-1 MS	MW-3D	Total/NA	Water	6010C	441218
480-143899-1 MSD	MW-3D	Total/NA	Water	6010C	441218

Analysis Batch: 443344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-143899-1	MW-3D	Total/NA	Water	6010C	441218
480-143899-2	MW-4	Total/NA	Water	6010C	441218
480-143899-3	MW-6	Total/NA	Water	6010C	441218
480-143899-4	MW-9	Total/NA	Water	6010C	441218
480-143899-5	DUP-1-20181004	Total/NA	Water	6010C	441218
LCSD 480-441218/24-A	Lab Control Sample Dup	Total/NA	Water	6010C	441218
480-143899-1 MS	MW-3D	Total/NA	Water	6010C	441218
480-143899-1 MSD	MW-3D	Total/NA	Water	6010C	441218

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-3D

Date Collected: 10/18/18 12:30

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	3005A			441697	10/25/18 12:22	VEG	TAL BUF
Dissolved	Analysis	6010C		1	442100	10/26/18 14:43	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	442964	10/31/18 19:05	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	443344	11/02/18 11:34	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	7470A			442303	10/29/18 12:15	VEG	TAL BUF
Dissolved	Analysis	7470A		1	442378	10/29/18 16:01	BMB	TAL BUF
Total/NA	Prep	7470A			441391	10/24/18 11:50	BMB	TAL BUF
Total/NA	Analysis	7470A		1	441545	10/24/18 16:17	BMB	TAL BUF

Client Sample ID: MW-4

Date Collected: 10/18/18 11:35

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	3005A			441697	10/25/18 12:22	VEG	TAL BUF
Dissolved	Analysis	6010C		1	442100	10/26/18 15:01	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	442964	10/31/18 19:35	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	443344	11/02/18 11:52	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	7470A			442303	10/29/18 12:15	VEG	TAL BUF
Dissolved	Analysis	7470A		1	442378	10/29/18 16:09	BMB	TAL BUF
Total/NA	Prep	7470A			441391	10/24/18 11:50	BMB	TAL BUF
Total/NA	Analysis	7470A		1	441545	10/24/18 16:25	BMB	TAL BUF

Client Sample ID: MW-6

Date Collected: 10/18/18 10:40

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	3005A			441697	10/25/18 12:22	VEG	TAL BUF
Dissolved	Analysis	6010C		1	442100	10/26/18 15:05	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	442964	10/31/18 19:39	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	443344	11/02/18 12:06	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Client Sample ID: MW-6

Date Collected: 10/18/18 10:40

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			442303	10/29/18 12:15	VEG	TAL BUF
Dissolved	Analysis	7470A		1	442378	10/29/18 16:10	BMB	TAL BUF
Total/NA	Prep	7470A			441391	10/24/18 11:50	BMB	TAL BUF
Total/NA	Analysis	7470A		1	441545	10/24/18 16:27	BMB	TAL BUF

Client Sample ID: MW-9

Date Collected: 10/18/18 14:00

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	3005A			441697	10/25/18 12:22	VEG	TAL BUF
Dissolved	Analysis	6010C		1	442100	10/26/18 15:20	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	442964	10/31/18 19:43	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	443344	11/02/18 12:10	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	7470A			442303	10/29/18 12:15	VEG	TAL BUF
Dissolved	Analysis	7470A		1	442378	10/29/18 16:11	BMB	TAL BUF
Total/NA	Prep	7470A			441391	10/24/18 11:50	BMB	TAL BUF
Total/NA	Analysis	7470A		1	441545	10/24/18 16:28	BMB	TAL BUF

Client Sample ID: DUP-1-20181004

Date Collected: 10/18/18 00:00

Date Received: 10/20/18 01:00

Lab Sample ID: 480-143899-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	3005A			441697	10/25/18 12:22	VEG	TAL BUF
Dissolved	Analysis	6010C		1	442100	10/26/18 15:24	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	442964	10/31/18 19:46	LMH	TAL BUF
Total/NA	Prep	3005A			441218	10/24/18 08:29	VEG	TAL BUF
Total/NA	Analysis	6010C		1	443344	11/02/18 12:14	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			441363	10/24/18 09:25	KMP	TAL BUF
Dissolved	Prep	7470A			442303	10/29/18 12:15	VEG	TAL BUF
Dissolved	Analysis	7470A		1	442378	10/29/18 16:13	BMB	TAL BUF
Total/NA	Prep	7470A			441391	10/24/18 11:50	BMB	TAL BUF
Total/NA	Analysis	7470A		1	441545	10/24/18 16:29	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby TIOGA CASTINGS

TestAmerica Job ID: 480-143899-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1

SDG No.: _____

Project: NYSDEC-Standby TIOGA CASTINGS

Client Sample ID	Lab Sample ID
MW-3D	480-143899-1
MW-4	480-143899-2
MW-6	480-143899-3
MW-9	480-143899-4
DUP-1-20181004	480-143899-5

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-3D

Lab Sample ID: 480-143899-1

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 12:30

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.056	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	49.0	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.050	0.050	0.019	mg/L	U		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	8.9	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.00062	0.0030	0.00040	mg/L	J	B	1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	1.7	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	19.9	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0025	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MW-3D

Lab Sample ID: 480-143899-1

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 12:30

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.051	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	47.3	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.050	0.050	0.019	mg/L	U		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	8.3	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.0030	0.0030	0.00040	mg/L	U		1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	1.6	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	17.5	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0043	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-4

Lab Sample ID: 480-143899-2

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 11:35

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.053	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	48.8	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.050	0.050	0.019	mg/L	U		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	8.6	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.00065	0.0030	0.00040	mg/L	J	B	1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	1.4	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	16.2	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0020	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MW-4

Lab Sample ID: 480-143899-2

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 11:35

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.051	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	48.2	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.050	0.050	0.019	mg/L	U		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	8.4	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.00058	0.0030	0.00040	mg/L	J		1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	1.4	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	15.0	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0097	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-6

Lab Sample ID: 480-143899-3

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 10:40

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.063	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	56.3	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.050	0.050	0.019	mg/L	U		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	9.4	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.0030	0.0030	0.00040	mg/L	U		1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	2.6	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	29.5	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0016	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MW-6

Lab Sample ID: 480-143899-3

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 10:40

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.060	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	54.5	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.050	0.050	0.019	mg/L	U		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	9.0	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.0030	0.0030	0.00040	mg/L	U		1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	2.5	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	27.1	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0055	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-9

Lab Sample ID: 480-143899-4

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 14:00

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.093	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	89.6	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.044	0.050	0.019	mg/L	J		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	12.0	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.0019	0.0030	0.00040	mg/L	J	B	1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	4.6	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	6.1	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0032	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MW-9

Lab Sample ID: 480-143899-4

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 14:00

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.087	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	85.5	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.050	0.050	0.019	mg/L	U		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	11.2	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.0030	0.0030	0.00040	mg/L	U		1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	4.4	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	5.6	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0068	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP-1-20181004

Lab Sample ID: 480-143899-5

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 00:00

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.055	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	50.3	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.022	0.050	0.019	mg/L	J		1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	8.9	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.00071	0.0030	0.00040	mg/L	J	B	1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	1.5	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	16.5	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0035	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DUP-1-20181004

Lab Sample ID: 480-143899-5

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG ID.:

Matrix: Water

Date Sampled: 10/18/2018 00:00

Reporting Basis: WET

Date Received: 10/20/2018 01:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.20	0.20	0.060	mg/L	U		1	6010C
7440-36-0	Antimony	0.020	0.020	0.0068	mg/L	U		1	6010C
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L	U		1	6010C
7440-39-3	Barium	0.053	0.0020	0.00070	mg/L			1	6010C
7440-41-7	Beryllium	0.0020	0.0020	0.00030	mg/L	U		1	6010C
7440-43-9	Cadmium	0.0020	0.0020	0.00050	mg/L	U		1	6010C
7440-70-2	Calcium	48.0	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0040	0.0040	0.0010	mg/L	U		1	6010C
7440-48-4	Cobalt	0.0040	0.0040	0.00063	mg/L	U		1	6010C
7440-50-8	Copper	0.010	0.010	0.0016	mg/L	U		1	6010C
7439-89-6	Iron	0.058	0.050	0.019	mg/L			1	6010C
7439-92-1	Lead	0.010	0.010	0.0030	mg/L	U		1	6010C
7439-95-4	Magnesium	8.4	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	0.00054	0.0030	0.00040	mg/L	J		1	6010C
7440-02-0	Nickel	0.010	0.010	0.0013	mg/L	U		1	6010C
7440-09-7	Potassium	1.4	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.025	0.025	0.0087	mg/L	U		1	6010C
7440-22-4	Silver	0.0060	0.0060	0.0017	mg/L	U		1	6010C
7440-23-5	Sodium	15.0	1.0	0.32	mg/L			1	6010C
7440-28-0	Thallium	0.020	0.020	0.010	mg/L	U		1	6010C
7440-62-2	Vanadium	0.0050	0.0050	0.0015	mg/L	U		1	6010C
7440-66-6	Zinc	0.0037	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	0.00020	0.00020	0.00012	mg/L	U		1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_04_ICV_00394 Concentration Units: mg/L

CCV Source: MEI_09_CCV_00309

Analyte	ICV 480-442100/5 10/26/2018 08:51				CCV 480-442100/17 10/26/2018 14:21				CCV 480-442100/29 10/26/2018 15:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	17.43		18.8	93	23.53		25.0	94	23.76		25.0	95
Antimony	0.348		0.375	93	0.489		0.500	98	0.483		0.500	97
Arsenic	0.348		0.375	93	0.477		0.500	95	0.483		0.500	97
Barium	0.355		0.375	95	0.485		0.500	97	0.487		0.500	97
Beryllium	0.355		0.375	95	0.470		0.500	94	0.473		0.500	95
Cadmium	0.358		0.375	96	0.487		0.500	97	0.491		0.500	98
Calcium	18.03		18.8	96	23.98		25.0	96	24.02		25.0	96
Chromium	0.361		0.375	96	0.480		0.500	96	0.483		0.500	97
Cobalt	0.351		0.375	94	0.474		0.500	95	0.477		0.500	95
Copper	0.358		0.375	95	0.482		0.500	96	0.486		0.500	97
Iron	17.90		18.8	95	23.84		25.0	95	24.00		25.0	96
Lead	0.352		0.375	94	0.474		0.500	95	0.475		0.500	95
Magnesium	17.57		18.8	94	23.34		25.0	93	23.56		25.0	94
Manganese	0.369		0.375	98	0.489		0.500	98	0.493		0.500	99
Nickel	0.351		0.375	94	0.471		0.500	94	0.473		0.500	95
Potassium	17.56		18.8	94	23.73		25.0	95	23.87		25.0	95
Selenium	0.350		0.375	93	0.477		0.500	95	0.483		0.500	97
Silver	0.359		0.375	96	0.481		0.500	96	0.485		0.500	97
Sodium	17.41		18.8	93	23.23		25.0	93	23.48		25.0	94
Thallium	0.350		0.375	93	0.468		0.500	94	0.472		0.500	94
Vanadium	0.357		0.375	95	0.479		0.500	96	0.483		0.500	97
Zinc	0.370		0.375	99	0.469		0.500	94	0.472		0.500	94

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_04_ICV_00394 Concentration Units: mg/L

CCV Source: MEI_09_CCV_00309

Analyte	CCV 480-442100/41 10/26/2018 15:56											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	23.60		25.0	94								
Antimony	0.486		0.500	97								
Arsenic	0.485		0.500	97								
Barium	0.490		0.500	98								
Beryllium	0.473		0.500	95								
Cadmium	0.490		0.500	98								
Calcium	23.96		25.0	96								
Chromium	0.486		0.500	97								
Cobalt	0.478		0.500	96								
Copper	0.488		0.500	98								
Iron	23.84		25.0	95								
Lead	0.476		0.500	95								
Magnesium	23.64		25.0	95								
Manganese	0.495		0.500	99								
Nickel	0.476		0.500	95								
Potassium	24.10		25.0	96								
Selenium	0.479		0.500	96								
Silver	0.487		0.500	97								
Sodium	23.81		25.0	95								
Thallium	0.473		0.500	95								
Vanadium	0.483		0.500	97								
Zinc	0.470		0.500	94								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_10_CCVL_00214

Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00214

Analyte	ICVL 480-442100/7 10/26/2018 08:59				CCVL 480-442100/19 10/26/2018 14:31				CCVL 480-442100/31 10/26/2018 15:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.198	J	0.200	99	0.184	J	0.200	92	0.196	J	0.200	98
Antimony	0.0167	J	0.0200	83	0.0209		0.0200	104	0.0171	J	0.0200	86
Arsenic	0.0146	J	0.0150	97	0.0146	J	0.0150	98	0.0161		0.0150	107
Barium	0.00204		0.00200	102	0.00202		0.00200	101	0.00204		0.00200	102
Beryllium	0.00204		0.00200	102	0.00197	J	0.00200	99	0.00195	J	0.00200	98
Cadmium	0.00197	J	0.00200	99	0.00197	J	0.00200	99	0.00198	J	0.00200	99
Calcium	0.510		0.500	102	0.514		0.500	103	0.495	J	0.500	99
Chromium	0.00391	J	0.00400	98	0.00356	J	0.00400	89	0.00373	J	0.00400	93
Cobalt	0.00359	J	0.00400	90	0.00366	J	0.00400	92	0.00365	J	0.00400	91
Copper	0.00952	J	0.0100	95	0.00920	J	0.0100	92	0.00936	J	0.0100	94
Iron	0.0498	J	0.0500	100	0.0472	J	0.0500	94	0.0487	J	0.0500	97
Lead	0.00994	J	0.0100	99	0.00980	J	0.0100	98	0.00943	J	0.0100	94
Magnesium	0.201		0.200	100	0.200		0.200	100	0.196	J	0.200	98
Manganese	0.00289	J	0.00300	96	0.00276	J	0.00300	92	0.00277	J	0.00300	92
Nickel	0.00974	J	0.0100	97	0.00940	J	0.0100	94	0.00928	J	0.0100	93
Potassium	0.440	J	0.500	88	0.525		0.500	105	0.470	J	0.500	94
Selenium	0.0215	J	0.0250	86	0.0212	J	0.0250	85	0.0238	J	0.0250	95
Silver	0.00574	J	0.00600	96	0.00603		0.00600	101	0.00565	J	0.00600	94
Sodium	0.931	J	1.00	93	0.951	J	1.00	95	0.925	J	1.00	93
Thallium	0.0191	J	0.0200	95	0.0192	J	0.0200	96	0.0191	J	0.0200	95
Vanadium	0.00471	J	0.00500	94	0.00482	J	0.00500	96	0.00456	J	0.00500	91
Zinc	0.0113		0.0100	113	0.0108		0.0100	108	0.0108		0.0100	108

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_10_CCVL_00214 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00214

Analyte	CCVL 480-442100/43 10/26/2018 16:03											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.186	J	0.200	93								
Antimony	0.0177	J	0.0200	88								
Arsenic	0.0132	J	0.0150	88								
Barium	0.00202		0.00200	101								
Beryllium	0.00204		0.00200	102								
Cadmium	0.00208		0.00200	104								
Calcium	0.499	J	0.500	100								
Chromium	0.00383	J	0.00400	96								
Cobalt	0.00366	J	0.00400	92								
Copper	0.00943	J	0.0100	94								
Iron	0.0492	J	0.0500	98								
Lead	0.0100		0.0100	100								
Magnesium	0.197	J	0.200	99								
Manganese	0.00280	J	0.00300	93								
Nickel	0.00969	J	0.0100	97								
Potassium	0.599		0.500	120								
Selenium	0.0226	J	0.0250	90								
Silver	0.00596	J	0.00600	99								
Sodium	1.08		1.00	108								
Thallium	0.0188	J	0.0200	94								
Vanadium	0.00454	J	0.00500	91								
Zinc	0.0108		0.0100	108								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_04_ICV_00394

Concentration Units: mg/L

CCV Source: MEI_09_CCV_00309

Analyte	ICV 480-442964/5 10/31/2018 09:13				CCV 480-442964/17 10/31/2018 17:41				CCV 480-442964/29 10/31/2018 18:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	18.45		18.8	98	25.12		25.0	100	24.95		25.0	100
Antimony	0.366		0.375	98	0.479		0.500	96	0.471		0.500	94
Arsenic	0.372		0.375	99	0.474		0.500	95	0.458		0.500	92
Barium	0.374		0.375	100	0.511		0.500	102	0.510		0.500	102
Beryllium	0.374		0.375	100	0.502		0.500	100	0.506		0.500	101
Cadmium	0.372		0.375	99	0.479		0.500	96	0.469		0.500	94
Calcium	18.84		18.8	101	24.81		25.0	99	24.65		25.0	99
Chromium	0.379		0.375	101	0.516		0.500	103	0.516		0.500	103
Cobalt	0.366		0.375	98	0.490		0.500	98	0.488		0.500	98
Copper	0.373		0.375	100	0.506		0.500	101	0.509		0.500	102
Iron	18.79		18.8	100	25.38		25.0	102	25.50		25.0	102
Lead	0.367		0.375	98	0.485		0.500	97	0.479		0.500	96
Magnesium	18.41		18.8	98	24.50		25.0	98	24.52		25.0	98
Manganese	0.387		0.375	103	0.523		0.500	105	0.528		0.500	106
Nickel	0.368		0.375	98	0.503		0.500	101	0.509		0.500	102
Potassium	18.21		18.8	97	25.02		25.0	100	25.15		25.0	101
Selenium	0.371		0.375	99	0.484		0.500	97	0.479		0.500	96
Silver	0.378		0.375	101	0.508		0.500	102	0.508		0.500	102
Sodium	18.25		18.8	97	25.67		25.0	103	25.96		25.0	104
Thallium	0.369		0.375	98	0.481		0.500	96	0.475		0.500	95
Vanadium	0.376		0.375	100	0.521		0.500	104	0.523		0.500	105
Zinc	0.376		0.375	100	0.492		0.500	98	0.485		0.500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_04_ICV_00394 Concentration Units: mg/L

CCV Source: MEI_09_CCV_00309

Analyte	CCV 480-442964/41 10/31/2018 19:13				CCV 480-442964/53 10/31/2018 19:58							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	24.61		25.0	98	24.88		25.0	100				
Antimony	0.462		0.500	92	0.467		0.500	93				
Arsenic					0.456		0.500	91				
Barium	0.505		0.500	101	0.509		0.500	102				
Beryllium	0.503		0.500	101	0.501		0.500	100				
Cadmium	0.462		0.500	92	0.467		0.500	93				
Calcium	24.60		25.0	98	24.52		25.0	98				
Chromium	0.516		0.500	103	0.516		0.500	103				
Cobalt	0.485		0.500	97	0.486		0.500	97				
Copper	0.503		0.500	101	0.503		0.500	101				
Iron	25.36		25.0	101	25.29		25.0	101				
Lead	0.475		0.500	95	0.480		0.500	96				
Magnesium	24.40		25.0	98	24.31		25.0	97				
Manganese	0.527		0.500	105	0.523		0.500	105				
Nickel	0.509		0.500	102	0.506		0.500	101				
Potassium	25.04		25.0	100	24.93		25.0	100				
Selenium	0.471		0.500	94	0.477		0.500	95				
Silver	0.505		0.500	101	0.504		0.500	101				
Sodium	25.60		25.0	102	25.68		25.0	103				
Thallium	0.467		0.500	93	0.473		0.500	95				
Vanadium	0.521		0.500	104	0.523		0.500	105				
Zinc	0.489		0.500	98	0.486		0.500	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_10_CCVL_00215

Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00215

Analyte	ICVL 480-442964/7 10/31/2018 09:20				CCVL 480-442964/19 10/31/2018 17:48				CCVL 480-442964/31 10/31/2018 18:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.204		0.200	102	0.182	J	0.200	91	0.176	J	0.200	88
Antimony	0.0178	J	0.0200	89	0.0167	J	0.0200	84	0.0166	J	0.0200	83
Arsenic	0.0160		0.0150	107	0.0144	J	0.0150	96	0.0151		0.0150	100
Barium	0.00204		0.00200	102	0.00208		0.00200	104	0.00207		0.00200	104
Beryllium	0.00196	J	0.00200	98	0.00193	J	0.00200	97	0.00196	J	0.00200	98
Cadmium	0.00213		0.00200	107	0.00202		0.00200	101	0.00195	J	0.00200	98
Calcium	0.505		0.500	101	0.507		0.500	101	0.503		0.500	101
Chromium	0.00395	J	0.00400	99	0.00405		0.00400	101	0.00394	J	0.00400	99
Cobalt	0.00403		0.00400	101	0.00395	J	0.00400	99	0.00382	J	0.00400	96
Copper	0.00972	J	0.0100	97	0.00880	J	0.0100	88	0.00846	J	0.0100	85
Iron	0.0507		0.0500	101	0.0529		0.0500	106	0.0507		0.0500	101
Lead	0.0104		0.0100	104	0.0103		0.0100	103	0.00994	J	0.0100	99
Magnesium	0.199	J	0.200	100	0.202		0.200	101	0.201		0.200	101
Manganese	0.00308		0.00300	103	0.00308		0.00300	103	0.00321		0.00300	107
Nickel	0.0101		0.0100	101	0.0101		0.0100	101	0.0104		0.0100	104
Potassium	0.444	J	0.500	89	0.431	J	0.500	86	0.443	J	0.500	89
Selenium	0.0201	J	0.0250	80	0.0232	J	0.0250	93	0.0225	J	0.0250	90
Silver	0.00542	J	0.00600	90	0.00587	J	0.00600	98	0.00555	J	0.00600	93
Sodium	0.914	J	1.00	91	1.01		1.00	101	1.02		1.00	102
Thallium	0.0198	J	0.0200	99	0.0201		0.0200	101	0.0192	J	0.0200	96
Vanadium	0.00473	J	0.00500	95	0.00496	J	0.00500	99	0.00476	J	0.00500	95
Zinc	0.0101		0.0100	101	0.0113		0.0100	113	0.0107		0.0100	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_10_CCVL_00215 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00215

Analyte	CCVL 480-442964/43 10/31/2018 19:20				CCVL 480-442964/55 10/31/2018 20:05							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.197	J	0.200	99	0.183	J	0.200	91				
Antimony	0.0168	J	0.0200	84	0.0174	J	0.0200	87				
Arsenic	0.0138	J	0.0150	92	0.0142	J	0.0150	95				
Barium	0.00204		0.00200	102	0.00208		0.00200	104				
Beryllium	0.00194	J	0.00200	97	0.00195	J	0.00200	98				
Cadmium	0.00200		0.00200	100	0.00200		0.00200	100				
Calcium	0.513		0.500	103	0.504		0.500	101				
Chromium	0.00400		0.00400	100	0.00427		0.00400	107				
Cobalt	0.00384	J	0.00400	96	0.00395	J	0.00400	99				
Copper	0.00896	J	0.0100	90	0.00836	J	0.0100	84				
Iron	0.0497	J	0.0500	99	0.0508		0.0500	102				
Lead	0.0108		0.0100	108	0.0109		0.0100	109				
Magnesium	0.203		0.200	102	0.198	J	0.200	99				
Manganese	0.00318		0.00300	106	0.00317		0.00300	106				
Nickel	0.0104		0.0100	104	0.0101		0.0100	101				
Potassium	0.462	J	0.500	92	0.409	J	0.500	82				
Selenium	0.0237	J	0.0250	95	0.0224	J	0.0250	90				
Silver	0.00551	J	0.00600	92	0.00573	J	0.00600	96				
Sodium	0.997	J	1.00	100	0.993	J	1.00	99				
Thallium	0.0184	J	0.0200	92	0.0188	J	0.0200	94				
Vanadium	0.00478	J	0.00500	96	0.00488	J	0.00500	98				
Zinc	0.00958	J	0.0100	96	0.0102		0.0100	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_04_ICV_00394

Concentration Units: mg/L

CCV Source: MEI_09_CCV_00310

Analyte	ICV 480-443344/5 11/02/2018 09:45				CCV 480-443344/27 11/02/2018 11:12				CCV 480-443344/39 11/02/2018 11:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.368		0.375	98	0.511		0.500	102	0.511		0.500	102
<i>Aluminum</i>	18.44		18.8	98	24.97		25.0	100	24.99		25.0	100
<i>Antimony</i>	0.364		0.375	97	0.497		0.500	99	0.503		0.500	101
<i>Barium</i>	0.370		0.375	99	0.503		0.500	101	0.504		0.500	101
<i>Beryllium</i>	0.374		0.375	100	0.506		0.500	101	0.504		0.500	101
<i>Cadmium</i>	0.371		0.375	99	0.509		0.500	102	0.513		0.500	103
<i>Calcium</i>	18.89		18.8	101	25.93		25.0	104	25.83		25.0	103
<i>Chromium</i>	0.378		0.375	101	0.509		0.500	102	0.508		0.500	102
<i>Cobalt</i>	0.371		0.375	99	0.495		0.500	99	0.496		0.500	99
<i>Copper</i>	0.370		0.375	99	0.508		0.500	102	0.512		0.500	102
<i>Iron</i>	18.83		18.8	100	25.68		25.0	103	25.74		25.0	103
<i>Lead</i>	0.367		0.375	98	0.496		0.500	99	0.497		0.500	99
<i>Magnesium</i>	18.33		18.8	98	25.47		25.0	102	25.38		25.0	102
<i>Manganese</i>	0.387		0.375	103	0.527		0.500	105	0.525		0.500	105
<i>Nickel</i>	0.371		0.375	99	0.495		0.500	99	0.497		0.500	99
<i>Potassium</i>	18.55		18.8	99	24.84		25.0	99	24.65		25.0	99
<i>Selenium</i>	0.357		0.375	95	0.509		0.500	102	0.508		0.500	102
<i>Silver</i>	0.377		0.375	101	0.539		0.500	108	0.541		0.500	108
<i>Sodium</i>	18.43		18.8	98	24.68		25.0	99	24.56		25.0	98
<i>Thallium</i>	0.367		0.375	98	0.488		0.500	98	0.488		0.500	98
<i>Vanadium</i>	0.378		0.375	101	0.508		0.500	102	0.505		0.500	101
<i>Zinc</i>	0.380		0.375	101	0.519		0.500	104	0.513		0.500	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_04_ICV_00394 Concentration Units: mg/L

CCV Source: MEI_09_CCV_00310

Analyte	CCV 480-443344/46 11/02/2018 12:39											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.512		0.500	102								
<i>Aluminum</i>	25.09		25.0	100								
<i>Antimony</i>	0.502		0.500	100								
<i>Barium</i>	0.507		0.500	101								
<i>Beryllium</i>	0.503		0.500	101								
<i>Cadmium</i>	0.513		0.500	103								
<i>Calcium</i>	25.98		25.0	104								
<i>Chromium</i>	0.509		0.500	102								
<i>Cobalt</i>	0.495		0.500	99								
<i>Copper</i>	0.514		0.500	103								
<i>Iron</i>	25.74		25.0	103								
<i>Lead</i>	0.498		0.500	100								
<i>Magnesium</i>	25.50		25.0	102								
<i>Manganese</i>	0.528		0.500	106								
<i>Nickel</i>	0.496		0.500	99								
<i>Potassium</i>	24.64		25.0	99								
<i>Selenium</i>	0.509		0.500	102								
<i>Silver</i>	0.546		0.500	109								
<i>Sodium</i>	24.56		25.0	98								
<i>Thallium</i>	0.485		0.500	97								
<i>Vanadium</i>	0.506		0.500	101								
<i>Zinc</i>	0.514		0.500	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_10_CCVL_00215

Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00215

Analyte	ICVL 480-443344/7 11/02/2018 09:52				CCVL 480-443344/29 11/02/2018 11:19				CCVL 480-443344/41 11/02/2018 12:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0148	J	0.0150	99	0.0165		0.0150	110	0.0175		0.0150	117
<i>Aluminum</i>	0.186	J	0.200	93					0.183	J	0.200	92
<i>Antimony</i>	0.0186	J	0.0200	93	0.0187	J	0.0200	94	0.0175	J	0.0200	87
<i>Barium</i>	0.00201		0.00200	101	0.00209		0.00200	105	0.00206		0.00200	103
<i>Beryllium</i>	0.00216		0.00200	108	0.00210		0.00200	105	0.00213		0.00200	107
<i>Cadmium</i>	0.00204		0.00200	102	0.00207		0.00200	104	0.00198	J	0.00200	99
<i>Calcium</i>	0.509		0.500	102	0.531		0.500	106	0.537		0.500	107
<i>Chromium</i>	0.00403		0.00400	101	0.00416		0.00400	104	0.00383	J	0.00400	96
<i>Cobalt</i>	0.00423		0.00400	106	0.00423		0.00400	106	0.00423		0.00400	106
<i>Copper</i>	0.00841	J	0.0100	84	0.00845	J	0.0100	85	0.00883	J	0.0100	88
<i>Iron</i>	0.0508		0.0500	102	0.0517		0.0500	103	0.0493	J	0.0500	99
<i>Lead</i>	0.0103		0.0100	103	0.00979	J	0.0100	98	0.0101		0.0100	101
<i>Magnesium</i>	0.195	J	0.200	97	0.209		0.200	104	0.210		0.200	105
<i>Manganese</i>	0.00289	J	0.00300	96	0.00316		0.00300	105	0.00302		0.00300	101
<i>Nickel</i>	0.0107		0.0100	107	0.0108		0.0100	108	0.0108		0.0100	108
<i>Potassium</i>	0.457	J	0.500	91	0.456	J	0.500	91	0.466	J	0.500	93
<i>Selenium</i>	0.0207	J	0.0250	83	0.0227	J	0.0250	91	0.0198	J	0.0250	79
<i>Silver</i>	0.00512	J	0.00600	85	0.00562	J	0.00600	94	0.00555	J	0.00600	93
<i>Sodium</i>	0.940	J	1.00	94	0.940	J	1.00	94	0.934	J	1.00	93
<i>Thallium</i>	0.0214		0.0200	107	0.0212		0.0200	106	0.0228		0.0200	114
<i>Vanadium</i>	0.00501		0.00500	100	0.00444	J	0.00500	89	0.00458	J	0.00500	92
<i>Zinc</i>	0.0107		0.0100	107	0.0107		0.0100	107	0.0109		0.0100	109

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEI_10_CCVL_00215 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00215

Analyte	CCVL 480-443344/48 11/02/2018 12:46											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0166		0.0150	111								
<i>Aluminum</i>	0.166	J	0.200	83								
<i>Antimony</i>	0.0174	J	0.0200	87								
<i>Barium</i>	0.00208		0.00200	104								
<i>Beryllium</i>	0.00213		0.00200	107								
<i>Cadmium</i>	0.00192	J	0.00200	96								
<i>Calcium</i>	0.577		0.500	115								
<i>Chromium</i>	0.00433		0.00400	108								
<i>Cobalt</i>	0.00425		0.00400	106								
<i>Copper</i>	0.00797	J	0.0100	80								
<i>Iron</i>	0.0526		0.0500	105								
<i>Lead</i>	0.00998	J	0.0100	100								
<i>Magnesium</i>	0.209		0.200	104								
<i>Manganese</i>	0.00319		0.00300	106								
<i>Nickel</i>	0.0109		0.0100	109								
<i>Potassium</i>	0.467	J	0.500	93								
<i>Selenium</i>	0.0189	J	0.0250	76								
<i>Silver</i>	0.00553	J	0.00600	92								
<i>Sodium</i>	0.929	J	1.00	93								
<i>Thallium</i>	0.0219		0.0200	109								
<i>Vanadium</i>	0.00461	J	0.00500	92								
<i>Zinc</i>												

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEH_HG1_WKG_01872 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_01872

Analyte	ICV 480-441545/9 10/24/2018 14:12				ICVL 480-441545/11 10/24/2018 14:15				CCV 480-441545/36 10/24/2018 15:47			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00318		0.00300	106	0.00020 0		0.00020 0	100	0.00211		0.00200	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEH_HG1_WKG_01872 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_01872

Analyte	CCV 480-441545/48 10/24/2018 16:03				CCV 480-441545/60 10/24/2018 16:19				CCV 480-441545/72 10/24/2018 16:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00211		0.00200	106	0.00210		0.00200	105	0.00210		0.00200	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEH_HG1_WKG_01872 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_01872

Analyte	CCVL 480-441545/98 10/24/2018 17:08											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00021 0		0.00020 0	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEH_HG1_WKG_01878 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_01878

Analyte	ICV 480-442378/10 10/29/2018 13:23				ICVL 480-442378/15 10/29/2018 13:32				CCV 480-442378/76 10/29/2018 15:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00313		0.00300	104	0.00021 0		0.00020 0	105	0.00211		0.00200	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICV Source: MEH_HG1_WKG_01878 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_01878

Analyte	CCV 480-442378/88 10/29/2018 16:06				CCV 480-442378/94 10/29/2018 16:14				CCVL 480-442378/96 10/29/2018 16:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00211		0.00200	106	0.00211		0.00200	106	0.00021 0		0.00020 0	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Concentration Units: mg/L

Analyte	RL	ICB 480-442100/6 10/26/2018 08:55		CCB 480-442100/18 10/26/2018 14:25		CCB 480-442100/30 10/26/2018 15:13		CCB 480-442100/42 10/26/2018 15:59	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	0.20	U	0.20	U	0.20	U	0.20	U
Antimony	0.020	0.020	U	0.020	U	0.020	U	0.020	U
Arsenic	0.015	0.015	U	0.015	U	0.015	U	0.015	U
Barium	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Beryllium	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Cadmium	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Calcium	0.50	0.50	U	0.50	U	0.50	U	0.50	U
Chromium	0.0040	0.0040	U	0.0040	U	0.0040	U	0.0040	U
Cobalt	0.0040	0.0040	U	0.0040	U	0.0040	U	0.0040	U
Copper	0.010	0.010	U	0.010	U	0.010	U	0.010	U
Iron	0.050	0.050	U	0.050	U	0.050	U	0.050	U
Lead	0.010	0.010	U	0.010	U	0.010	U	0.010	U
Magnesium	0.20	0.20	U	0.20	U	0.20	U	0.20	U
Manganese	0.0030	0.0030	U	0.0030	U	0.0030	U	0.0030	U
Nickel	0.010	0.010	U	0.010	U	0.010	U	0.010	U
Potassium	0.50	0.50	U	0.50	U	0.50	U	0.142	J
Selenium	0.025	0.025	U	0.025	U	0.025	U	0.025	U
Silver	0.0060	0.0060	U	0.0060	U	0.0060	U	0.0060	U
Sodium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	0.020	0.020	U	0.020	U	0.020	U	0.020	U
Vanadium	0.0050	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Zinc	0.010	0.010	U	0.010	U	0.010	U	0.010	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Concentration Units: mg/L

Analyte	RL	ICB 480-442964/6 10/31/2018 09:16		CCB 480-442964/18 10/31/2018 17:44		CCB 480-442964/30 10/31/2018 18:30		CCB 480-442964/42 10/31/2018 19:16	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	0.20	U	0.20	U	0.20	U	0.20	U
Antimony	0.020	0.020	U	0.020	U	0.020	U	0.020	U
Arsenic	0.015	0.015	U	0.015	U	0.015	U	0.015	U
Barium	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Beryllium	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Cadmium	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
Calcium	0.50	0.50	U	0.50	U	0.50	U	0.50	U
Chromium	0.0040	0.0040	U	0.0040	U	0.0040	U	0.0040	U
Cobalt	0.0040	0.0040	U	0.0040	U	0.0040	U	0.0040	U
Copper	0.010	0.010	U	0.010	U	0.010	U	0.010	U
Iron	0.050	0.050	U	0.050	U	0.050	U	0.050	U
Lead	0.010	0.010	U	0.010	U	0.010	U	0.010	U
Magnesium	0.20	0.20	U	0.20	U	0.20	U	0.20	U
Manganese	0.0030	0.0030	U	0.0030	U	0.0030	U	0.0030	U
Nickel	0.010	0.010	U	0.010	U	0.010	U	0.010	U
Potassium	0.50	0.50	U	0.50	U	0.50	U	0.50	U
Selenium	0.025	0.025	U	0.025	U	0.025	U	0.025	U
Silver	0.0060	0.0060	U	0.0060	U	0.0060	U	0.0060	U
Sodium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	0.020	0.020	U	0.020	U	0.020	U	0.020	U
Vanadium	0.0050	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Zinc	0.010	0.00233	J	0.010	U	0.010	U	0.010	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Concentration Units: mg/L

Analyte	RL	CCB 480-442964/54 10/31/2018 20:02							
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	0.20	U						
Antimony	0.020	0.020	U						
Arsenic	0.015	0.015	U						
Barium	0.0020	0.0020	U						
Beryllium	0.0020	0.0020	U						
Cadmium	0.0020	0.0020	U						
Calcium	0.50	0.50	U						
Chromium	0.0040	0.0040	U						
Cobalt	0.0040	0.0040	U						
Copper	0.010	0.010	U						
Iron	0.050	0.050	U						
Lead	0.010	0.010	U						
Magnesium	0.20	0.20	U						
Manganese	0.0030	0.0030	U						
Nickel	0.010	0.010	U						
Potassium	0.50	0.50	U						
Selenium	0.025	0.025	U						
Silver	0.0060	0.0060	U						
Sodium	1.0	1.0	U						
Thallium	0.020	0.020	U						
Vanadium	0.0050	0.0050	U						
Zinc	0.010	0.00162	J						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Concentration Units: mg/L

Analyte	RL	ICB 480-443344/6 11/02/2018 09:48		CCB 480-443344/28 11/02/2018 11:15		CCB 480-443344/40 11/02/2018 11:59		CCB 480-443344/47 11/02/2018 12:43	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.015	0.015	U	0.015	U	0.015	U	0.015	U
<i>Aluminum</i>	0.20	0.20	U	0.20	U	0.20	U	0.20	U
<i>Antimony</i>	0.020	0.020	U	0.020	U	0.020	U	0.020	U
<i>Barium</i>	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
<i>Beryllium</i>	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
<i>Cadmium</i>	0.0020	0.0020	U	0.0020	U	0.0020	U	0.0020	U
<i>Calcium</i>	0.50	0.50	U	0.50	U	0.50	U	0.50	U
<i>Chromium</i>	0.0040	0.0040	U	0.0040	U	0.0040	U	0.0040	U
<i>Cobalt</i>	0.0040	0.0040	U	0.0040	U	0.0040	U	0.0040	U
<i>Copper</i>	0.010	0.010	U	0.010	U	0.010	U	0.010	U
<i>Iron</i>	0.050	0.050	U	0.050	U	0.050	U	0.050	U
<i>Lead</i>	0.010	0.010	U	0.010	U	0.010	U	0.010	U
<i>Magnesium</i>	0.20	0.20	U	0.20	U	0.20	U	0.20	U
<i>Manganese</i>	0.0030	0.0030	U	0.0030	U	0.0030	U	0.0030	U
<i>Nickel</i>	0.010	0.010	U	0.010	U	0.010	U	0.010	U
<i>Potassium</i>	0.50	0.50	U	0.50	U	0.50	U	0.50	U
<i>Selenium</i>	0.025	0.025	U	0.025	U	0.025	U	0.025	U
<i>Silver</i>	0.0060	0.0060	U	0.0060	U	0.0060	U	0.0060	U
<i>Sodium</i>	1.0	1.0	U	1.0	U	1.0	U	1.0	U
<i>Thallium</i>	0.020	0.020	U	0.020	U	0.020	U	0.020	U
<i>Vanadium</i>	0.0050	0.0050	U	0.0050	U	0.0050	U	0.0050	U
<i>Zinc</i>	0.010	0.010	U	0.010	U	0.010	U	0.010	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Concentration Units: mg/L

Analyte	RL	ICB 480-441545/10 10/24/2018 14:14		CCB 480-441545/37 10/24/2018 15:49		CCB 480-441545/49 10/24/2018 16:04		CCB 480-441545/61 10/24/2018 16:20	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	0.00020	U	0.00020	U	0.00020	U	0.00020	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Concentration Units: mg/L

Analyte	RL	CCB 480-441545/73 10/24/2018 16:36							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	0.00020	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Concentration Units: mg/L

Analyte	RL	ICB 480-442378/11 10/29/2018 13:25		CCB 480-442378/77 10/29/2018 15:52		CCB 480-442378/89 10/29/2018 16:07		CCB 480-442378/95 10/29/2018 16:15	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	0.00020	U	0.00020	U	0.00020	U	0.00020	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - DISSOLVED

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Concentration Units: mg/L Lab Sample ID: MB 480-441363/1-B
 Instrument Code: ICAP1 Batch No.: 442100

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	0.20	U		6010C
7440-36-0	Antimony	0.020	U		6010C
7440-38-2	Arsenic	0.015	U		6010C
7440-39-3	Barium	0.0020	U		6010C
7440-41-7	Beryllium	0.0020	U		6010C
7440-43-9	Cadmium	0.0020	U		6010C
7440-70-2	Calcium	0.50	U		6010C
7440-47-3	Chromium	0.0040	U		6010C
7440-48-4	Cobalt	0.0040	U		6010C
7440-50-8	Copper	0.010	U		6010C
7439-89-6	Iron	0.050	U		6010C
7439-92-1	Lead	0.010	U		6010C
7439-95-4	Magnesium	0.20	U		6010C
7439-96-5	Manganese	0.0030	U		6010C
7440-02-0	Nickel	0.010	U		6010C
7440-09-7	Potassium	0.50	U		6010C
7782-49-2	Selenium	0.025	U		6010C
7440-22-4	Silver	0.0060	U		6010C
7440-23-5	Sodium	1.0	U		6010C
7440-28-0	Thallium	0.020	U		6010C
7440-62-2	Vanadium	0.0050	U		6010C
7440-66-6	Zinc	0.00440	J		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Concentration Units: mg/L Lab Sample ID: MB 480-441218/1-A
 Instrument Code: ICAP1 Batch No.: 442964

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	0.20	U		6010C
7440-36-0	Antimony	0.020	U		6010C
7440-38-2	Arsenic	0.015	U		6010C
7440-39-3	Barium	0.0020	U		6010C
7440-41-7	Beryllium	0.0020	U		6010C
7440-43-9	Cadmium	0.0020	U		6010C
7440-70-2	Calcium	0.50	U		6010C
7440-47-3	Chromium	0.0040	U		6010C
7440-48-4	Cobalt	0.0040	U		6010C
7440-50-8	Copper	0.010	U		6010C
7439-89-6	Iron	0.050	U		6010C
7439-92-1	Lead	0.010	U		6010C
7439-95-4	Magnesium	0.20	U		6010C
7439-96-5	Manganese	0.000630	J		6010C
7440-02-0	Nickel	0.010	U		6010C
7440-09-7	Potassium	0.50	U		6010C
7782-49-2	Selenium	0.025	U		6010C
7440-22-4	Silver	0.0060	U		6010C
7440-23-5	Sodium	1.0	U		6010C
7440-28-0	Thallium	0.020	U		6010C
7440-62-2	Vanadium	0.0050	U		6010C
7440-66-6	Zinc	0.00232	J		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
SDG No.: _____
Concentration Units: mg/L Lab Sample ID: MB 480-441391/1-A
Instrument Code: LEEMAN5 Batch No.: 441545

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00020	U		7470A

3-IN
METHOD BLANK
METALS - DISSOLVED

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
SDG No.: _____
Concentration Units: mg/L Lab Sample ID: MB 480-441363/1-E
Instrument Code: LEEMAN5 Batch No.: 442378

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00020	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Lab Sample ID: ICSA 480-442100/8 Instrument ID: ICAP1
 Lab File ID: il102618a-7.asc ICS Source: MEI_07_ICSA_00114
 Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	500	478	96
Antimony		-0.0135	
Arsenic		-0.0111	
Barium		0.0009	
Beryllium		0.0001	
Cadmium		0.0007	
Calcium	500	451	90
Chromium		-0.0015	
Cobalt		-0.0003	
Copper		-0.0001	
Iron	200	182	91
Lead		-0.0034	
Magnesium	500	479	96
Manganese		-0.0007	
Nickel		-0.0003	
Potassium		0.0172	
Selenium		0.0007	
Silver		-0.0007	
Sodium		0.0423	
Thallium		0.0002	
Vanadium		-0.0007	
Zinc		0.0035	
<i>Boron</i>		<i>0.0003</i>	
<i>Lithium</i>		<i>0.0056</i>	
<i>Molybdenum</i>		<i>-0.0006</i>	
<i>Silicon</i>		<i>-0.0002</i>	
<i>Sulfur</i>		<i>0.0388</i>	
<i>Tin</i>		<i>-0.0015</i>	
<i>Titanium</i>		<i>-0.0008</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Lab Sample ID: ICSAB 480-442100/9 Instrument ID: ICAP1
 Lab File ID: il102618a-7.asc ICS Source: MEI_08_ICSAB_00127
 Concentration Units: mg/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Aluminum	500	490	98
Antimony	0.600	0.561	93
Arsenic	0.100	0.0905	90
Barium	0.500	0.475	95
Beryllium	0.501	0.477	95
Cadmium	1.00	0.984	98
Calcium	500	454	91
Chromium	0.500	0.443	89
Cobalt	0.500	0.467	93
Copper	0.501	0.519	104
Iron	100	88.7	88
Lead	0.0501	0.0461	92
Magnesium	500	492	98
Manganese	0.501	0.445	89
Nickel	1.00	0.916	92
Potassium		0.0408	
Selenium	0.0501	0.0446	89
Silver	0.200	0.211	105
Sodium		0.204	
Thallium	0.100	0.0935	93
Vanadium	0.501	0.466	93
Zinc	1.00	0.892	89
<i>Boron</i>		<i>0.0052</i>	
<i>Lithium</i>	<i>0.501</i>	<i>0.521</i>	<i>104</i>
<i>Molybdenum</i>		<i>0.0002</i>	
<i>Silicon</i>	<i>1.00</i>	<i>0.921</i>	<i>92</i>
<i>Strontium</i>	<i>0.500</i>	<i>0.469</i>	<i>94</i>
<i>Sulfur</i>	<i>1.00</i>	<i>0.994</i>	<i>99</i>
<i>Tin</i>		<i>-0.0016</i>	
<i>Titanium</i>		<i>0.0004</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Lab Sample ID: ICSA 480-442964/8 Instrument ID: ICAP1
 Lab File ID: il103118a-8.asc ICS Source: MEI_07_ICSA_00114
 Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	500	511	102
Antimony		0.0199	
Arsenic		-0.0026	
Barium		0.0009	
Beryllium		0.0000	
Cadmium		0.0003	
Calcium	500	481	96
Chromium		-0.0015	
Cobalt		-0.0003	
Copper		0.0005	
Iron	200	194	97
Lead		-0.0020	
Magnesium	500	516	103
Manganese		-0.0006	
Nickel		0.0003	
Potassium		-0.0337	
Selenium		0.0016	
Silver		-0.0012	
Sodium		0.0231	
Thallium		-0.0024	
Vanadium		-0.0005	
Zinc		0.0038	
<i>Boron</i>		<i>-0.0001</i>	
<i>Lithium</i>		<i>0.0035</i>	
<i>Molybdenum</i>		<i>0.0003</i>	
<i>Silicon</i>		<i>-0.0411</i>	
<i>Sulfur</i>		<i>0.0093</i>	
<i>Tin</i>		<i>-0.0024</i>	
<i>Titanium</i>		<i>-0.0005</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Lab Sample ID: ICSAB 480-442964/9 Instrument ID: ICAP1
 Lab File ID: il103118a-8.asc ICS Source: MEI_08_ICSAB_00127
 Concentration Units: mg/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Aluminum	500	533	107
Antimony	0.600	0.625	104
Arsenic	0.100	0.108	108
Barium	0.500	0.517	103
Beryllium	0.501	0.508	101
Cadmium	1.00	1.04	104
Calcium	500	484	97
Chromium	0.500	0.483	97
Cobalt	0.500	0.497	99
Copper	0.501	0.553	110
Iron	100	95.8	95
Lead	0.0501	0.0514	103
Magnesium	500	526	105
Manganese	0.501	0.477	95
Nickel	1.00	0.974	97
Potassium		0.0379	
Selenium	0.0501	0.0553	110
Silver	0.200	0.224	112
Sodium		0.179	
Thallium	0.100	0.0991	99
Vanadium	0.501	0.515	103
Zinc	1.00	0.964	96
<i>Boron</i>		<i>0.0046</i>	
<i>Lithium</i>	<i>0.501</i>	<i>0.563</i>	<i>112</i>
<i>Molybdenum</i>		<i>0.0015</i>	
<i>Silicon</i>	<i>1.00</i>	<i>0.969</i>	<i>97</i>
<i>Strontium</i>	<i>0.500</i>	<i>0.513</i>	<i>103</i>
<i>Sulfur</i>	<i>1.00</i>	<i>1.04</i>	<i>104</i>
<i>Tin</i>		<i>-0.0041</i>	
<i>Titanium</i>		<i>0.0005</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Lab Sample ID: ICSA 480-443344/8 Instrument ID: ICAP2
 Lab File ID: I2110218A-1.asc ICS Source: MEI_07_ICSA_00114
 Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		-0.0039	
<i>Aluminum</i>	500	492	98
<i>Antimony</i>		-0.0054	
<i>Barium</i>		0.0010	
<i>Beryllium</i>		0.0000	
<i>Boron</i>		-0.0024	
<i>Cadmium</i>		-0.0002	
<i>Calcium</i>	500	479	96
<i>Chromium</i>		0.0006	
<i>Cobalt</i>		-0.0002	
<i>Copper</i>		0.0055	
<i>Iron</i>	200	188	94
<i>Lead</i>		0.0027	
<i>Lithium</i>		0.0025	
<i>Magnesium</i>	500	537	107
<i>Manganese</i>		-0.0005	
<i>Molybdenum</i>		-0.0023	
<i>Nickel</i>		0.0015	
<i>Potassium</i>		-0.0375	
<i>Selenium</i>		-0.0014	
<i>Silicon</i>		-0.0290	
<i>Silver</i>		-0.0015	
<i>Sodium</i>		0.0100	
<i>Sulfur</i>		0.0177	
<i>Thallium</i>		-0.0039	
<i>Tin</i>		-0.0007	
<i>Titanium</i>		-0.0009	
<i>Vanadium</i>		-0.0026	
<i>Zinc</i>		0.0037	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1
 SDG No.: _____
 Lab Sample ID: ICSAB 480-443344/9 Instrument ID: ICAP2
 Lab File ID: I2110218A-1.asc ICS Source: MEI_08_ICSAB_00127
 Concentration Units: mg/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
Arsenic	0.100	0.0976	98
<i>Aluminum</i>	<i>500</i>	<i>508</i>	<i>102</i>
<i>Antimony</i>	<i>0.600</i>	<i>0.573</i>	<i>96</i>
<i>Barium</i>	<i>0.500</i>	<i>0.514</i>	<i>103</i>
<i>Beryllium</i>	<i>0.501</i>	<i>0.492</i>	<i>98</i>
<i>Boron</i>		<i>0.0009</i>	
<i>Cadmium</i>	<i>1.00</i>	<i>1.00</i>	<i>100</i>
<i>Calcium</i>	<i>500</i>	<i>483</i>	<i>96</i>
<i>Chromium</i>	<i>0.500</i>	<i>0.474</i>	<i>95</i>
<i>Cobalt</i>	<i>0.500</i>	<i>0.484</i>	<i>97</i>
<i>Copper</i>	<i>0.501</i>	<i>0.555</i>	<i>111</i>
<i>Iron</i>	<i>100</i>	<i>92.1</i>	<i>92</i>
<i>Lead</i>	<i>0.0501</i>	<i>0.0544</i>	<i>109</i>
<i>Lithium</i>	<i>0.501</i>	<i>0.519</i>	<i>104</i>
<i>Magnesium</i>	<i>500</i>	<i>550</i>	<i>110</i>
<i>Manganese</i>	<i>0.501</i>	<i>0.475</i>	<i>95</i>
<i>Molybdenum</i>		<i>-0.0015</i>	
<i>Nickel</i>	<i>1.00</i>	<i>0.948</i>	<i>95</i>
<i>Potassium</i>		<i>-0.0064</i>	
<i>Selenium</i>	<i>0.0501</i>	<i>0.0404</i>	<i>81</i>
<i>Silicon</i>	<i>1.00</i>	<i>0.982</i>	<i>98</i>
<i>Silver</i>	<i>0.200</i>	<i>0.216</i>	<i>108</i>
<i>Sodium</i>		<i>0.152</i>	
<i>Strontium</i>	<i>0.500</i>	<i>0.488</i>	<i>98</i>
<i>Sulfur</i>	<i>1.00</i>	<i>1.01</i>	<i>101</i>
<i>Thallium</i>	<i>0.100</i>	<i>0.0968</i>	<i>97</i>
<i>Tin</i>		<i>-0.0010</i>	
<i>Titanium</i>		<i>0.0008</i>	
<i>Vanadium</i>	<i>0.501</i>	<i>0.502</i>	<i>100</i>
<i>Zinc</i>	<i>1.00</i>	<i>0.966</i>	<i>97</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MW-3D MS

Lab ID: 480-143899-1 MS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

Matrix: Water

Concentration Units: mg/L

% Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	9.89	0.20 U	10.0	99	75-125		6010C
Antimony	0.183	0.020 U	0.200	92	75-125		6010C
Arsenic	0.207	0.015 U	0.200	103	75-125		6010C
Barium	0.255	0.056	0.200	100	75-125		6010C
Beryllium	0.204	0.0020 U	0.200	102	75-125		6010C
Cadmium	0.187	0.0020 U	0.200	94	75-125		6010C
Calcium	58.41	49.0	10.0	94	75-125	4	6010C
Chromium	0.200	0.0040 U	0.200	100	75-125		6010C
Cobalt	0.187	0.0040 U	0.200	93	75-125		6010C
Copper	0.191	0.010 U	0.200	96	75-125		6010C
Iron	9.89	0.050 U	10.0	99	75-125		6010C
Lead	0.188	0.010 U	0.200	94	75-125		6010C
Magnesium	18.38	8.9	10.0	95	75-125		6010C
Manganese	0.197	0.00062 J	0.200	98	75-125		6010C
Nickel	0.203	0.010 U	0.200	102	75-125		6010C
Potassium	11.48	1.7	10.0	98	75-125		6010C
Selenium	0.185	0.025 U	0.200	92	75-125		6010C
Silver	0.0487	0.0060 U	0.0500	97	75-125		6010C
Sodium	30.00	19.9	10.0	101	75-125		6010C
Thallium	0.187	0.020 U	0.200	93	75-125		6010C
Vanadium	0.203	0.0050 U	0.200	101	75-125		6010C
Zinc	0.196	0.0025 J	0.200	97	75-125		6010C
Mercury	0.00695	0.00020 U	0.00667	104	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MW-3D MS

Lab ID: 480-143899-1 MS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

Matrix: Water

Concentration Units: mg/L

% Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	9.12	0.20 U	10.0	91	75-125		6010C
Antimony	0.186	0.020 U	0.200	93	75-125		6010C
Arsenic	0.193	0.015 U	0.200	97	75-125		6010C
Barium	0.238	0.051	0.200	93	75-125		6010C
Beryllium	0.188	0.0020 U	0.200	94	75-125		6010C
Cadmium	0.193	0.0020 U	0.200	96	75-125		6010C
Calcium	55.89	47.3	10.0	85	75-125	4	6010C
Chromium	0.182	0.0040 U	0.200	91	75-125		6010C
Cobalt	0.178	0.0040 U	0.200	89	75-125		6010C
Copper	0.181	0.010 U	0.200	91	75-125		6010C
Iron	9.11	0.050 U	10.0	91	75-125		6010C
Lead	0.183	0.010 U	0.200	92	75-125		6010C
Magnesium	17.36	8.3	10.0	90	75-125		6010C
Manganese	0.180	0.0030 U	0.200	90	75-125		6010C
Nickel	0.184	0.010 U	0.200	92	75-125		6010C
Potassium	10.69	1.6	10.0	90	75-125		6010C
Selenium	0.186	0.025 U	0.200	93	75-125		6010C
Silver	0.0458	0.0060 U	0.0500	92	75-125		6010C
Sodium	26.40	17.5	10.0	89	75-125		6010C
Thallium	0.180	0.020 U	0.200	90	75-125		6010C
Vanadium	0.183	0.0050 U	0.200	91	75-125		6010C
Zinc	0.188	0.0043 J	0.200	92	75-125		6010C
Mercury	0.00695	0.00020 U	0.00667	104	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MW-3D MSD

Lab ID: 480-143899-1 MSD

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

Matrix: Water

Concentration Units: mg/L

% Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	9.91	10.0	99	75-125	0	20		6010C
Antimony	0.185	0.200	92	75-125	1	20		6010C
Arsenic	0.207	0.200	104	75-125	0	20		6010C
Barium	0.257	0.200	101	75-125	1	20		6010C
Beryllium	0.205	0.200	102	75-125	0	20		6010C
Cadmium	0.187	0.200	94	75-125	0	20		6010C
Calcium	59.67	10.0	106	75-125	2	20	4	6010C
Chromium	0.200	0.200	100	75-125	0	20		6010C
Cobalt	0.187	0.200	93	75-125	0	20		6010C
Copper	0.192	0.200	96	75-125	0	20		6010C
Iron	9.89	10.0	99	75-125	0	20		6010C
Lead	0.188	0.200	94	75-125	0	20		6010C
Magnesium	18.64	10.0	98	75-125	1	20		6010C
Manganese	0.197	0.200	98	75-125	0	20		6010C
Nickel	0.204	0.200	102	75-125	0	20		6010C
Potassium	11.59	10.0	99	75-125	1	20		6010C
Selenium	0.187	0.200	94	75-125	1	20		6010C
Silver	0.0459	0.0500	92	75-125	6	20		6010C
Sodium	30.41	10.0	105	75-125	1	20		6010C
Thallium	0.188	0.200	94	75-125	0	20		6010C
Vanadium	0.203	0.200	102	75-125	0	20		6010C
Zinc	0.196	0.200	97	75-125	0	20		6010C
Mercury	0.00705	0.00667	106	80-120	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MW-3D MSD

Lab ID: 480-143899-1 MSD

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

Matrix: Water

Concentration Units: mg/L

% Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	9.22	10.0	92	75-125	1	20		6010C
Antimony	0.186	0.200	93	75-125	0	20		6010C
Arsenic	0.193	0.200	97	75-125	0	20		6010C
Barium	0.240	0.200	94	75-125	1	20		6010C
Beryllium	0.190	0.200	95	75-125	1	20		6010C
Cadmium	0.195	0.200	97	75-125	1	20		6010C
Calcium	55.76	10.0	84	75-125	0	20	4	6010C
Chromium	0.184	0.200	92	75-125	1	20		6010C
Cobalt	0.180	0.200	90	75-125	1	20		6010C
Copper	0.183	0.200	92	75-125	1	20		6010C
Iron	9.29	10.0	93	75-125	2	20		6010C
Lead	0.184	0.200	92	75-125	0	20		6010C
Magnesium	17.38	10.0	91	75-125	0	20		6010C
Manganese	0.183	0.200	92	75-125	2	20		6010C
Nickel	0.187	0.200	93	75-125	2	20		6010C
Potassium	10.76	10.0	91	75-125	1	20		6010C
Selenium	0.188	0.200	94	75-125	1	20		6010C
Silver	0.0465	0.0500	93	75-125	2	20		6010C
Sodium	26.37	10.0	89	75-125	0	20		6010C
Thallium	0.183	0.200	92	75-125	2	20		6010C
Vanadium	0.185	0.200	93	75-125	1	20		6010C
Zinc	0.192	0.200	94	75-125	2	20		6010C
Mercury	0.00688	0.00667	103	80-120	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: MW-3D PDS

Lab ID: 480-143899-1 PDS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

Matrix: Water

Concentration Units: mg/L

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	10.15	0.20	U	10.0	102	80-120	6010C
Antimony	0.192	0.020	U	0.200	96	80-120	6010C
Arsenic	0.209	0.015	U	0.200	104	80-120	6010C
Barium	0.260	0.056		0.200	102	80-120	6010C
Beryllium	0.213	0.0020	U	0.200	107	80-120	6010C
Cadmium	0.195	0.0020	U	0.200	97	80-120	6010C
Calcium	57.71	49.0		10.0	87	80-120	6010C
Chromium	0.208	0.0040	U	0.200	104	80-120	6010C
Cobalt	0.194	0.0040	U	0.200	97	80-120	6010C
Copper	0.201	0.010	U	0.200	100	80-120	6010C
Iron	10.32	0.050	U	10.0	103	80-120	6010C
Lead	0.196	0.010	U	0.200	98	80-120	6010C
Magnesium	18.62	8.9		10.0	97	80-120	6010C
Manganese	0.206	0.00062	J	0.200	103	80-120	6010C
Nickel	0.212	0.010	U	0.200	106	80-120	6010C
Potassium	11.80	1.7		10.0	101	80-120	6010C
Selenium	0.195	0.025	U	0.200	98	80-120	6010C
Silver	0.0509	0.0060	U	0.0500	102	80-120	6010C
Sodium	29.69	19.9		10.0	98	80-120	6010C
Thallium	0.195	0.020	U	0.200	97	80-120	6010C
Vanadium	0.213	0.0050	U	0.200	106	80-120	6010C
Zinc	0.209	0.0025	J	0.200	103	80-120	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MW-3D PDS

Lab ID: 480-143899-1 PDS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

Matrix: Water

Concentration Units: mg/L

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	9.83	0.20	U	10.0	98	80-120	6010C
Antimony	0.205	0.020	U	0.200	103	80-120	6010C
Arsenic	0.207	0.015	U	0.200	103	80-120	6010C
Barium	0.250	0.051		0.200	100	80-120	6010C
Beryllium	0.202	0.0020	U	0.200	101	80-120	6010C
Cadmium	0.201	0.0020	U	0.200	100	80-120	6010C
Calcium	55.40	47.3		10.0	81	80-120	6010C
Chromium	0.196	0.0040	U	0.200	98	80-120	6010C
Cobalt	0.192	0.0040	U	0.200	96	80-120	6010C
Copper	0.196	0.010	U	0.200	98	80-120	6010C
Iron	9.79	0.050	U	10.0	98	80-120	6010C
Lead	0.204	0.010	U	0.200	102	80-120	6010C
Magnesium	17.78	8.3		10.0	95	80-120	6010C
Manganese	0.192	0.0030	U	0.200	96	80-120	6010C
Nickel	0.203	0.010	U	0.200	102	80-120	6010C
Potassium	11.26	1.6		10.0	96	80-120	6010C
Selenium	0.202	0.025	U	0.200	101	80-120	6010C
Silver	0.0493	0.0060	U	0.0500	99	80-120	6010C
Sodium	26.63	17.5		10.0	92	80-120	6010C
Thallium	0.200	0.020	U	0.200	100	80-120	6010C
Vanadium	0.201	0.0050	U	0.200	100	80-120	6010C
Zinc	0.197	0.0043	J	0.200	96	80-120	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
LAB CONTROL SAMPLE
METALS - DISSOLVED

Lab ID: LCS 480-441363/2-B

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

Sample Matrix: Water

LCS Source: MED_02_W2_00052

Analyte	Water (mg/L)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	10.0	9.29		93	80	120		6010C
Antimony	0.200	0.189		94	80	120		6010C
Arsenic	0.200	0.193		97	80	120		6010C
Barium	0.200	0.191		96	80	120		6010C
Beryllium	0.200	0.192		96	80	120		6010C
Cadmium	0.200	0.195		97	80	120		6010C
Calcium	10.0	9.38		94	80	120		6010C
Chromium	0.200	0.190		95	80	120		6010C
Cobalt	0.200	0.183		91	80	120		6010C
Copper	0.200	0.186		93	80	120		6010C
Iron	10.0	9.47		95	80	120		6010C
Lead	0.200	0.185		92	80	120		6010C
Magnesium	10.0	9.32		93	80	120		6010C
Manganese	0.200	0.187		94	80	120		6010C
Nickel	0.200	0.190		95	80	120		6010C
Potassium	10.0	9.05		90	80	120		6010C
Selenium	0.200	0.190		95	80	120		6010C
Silver	0.0500	0.0465		93	80	120		6010C
Sodium	10.0	9.00		90	80	120		6010C
Thallium	0.200	0.185		93	80	120		6010C
Vanadium	0.200	0.190		95	80	120		6010C
Zinc	0.200	0.194		97	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 480-441218/2-A

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

Sample Matrix: Water

LCS Source: MED_02_W2_00052

Analyte	Water (mg/L)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	10.0	9.64		96	80	120		6010C
Antimony	0.200	0.188		94	80	120		6010C
Arsenic	0.200	0.189		95	80	120		6010C
Barium	0.200	0.197		99	80	120		6010C
Beryllium	0.200	0.206		103	80	120		6010C
Cadmium	0.200	0.192		96	80	120		6010C
Calcium	10.0	9.76		98	80	120		6010C
Chromium	0.200	0.203		102	80	120		6010C
Cobalt	0.200	0.190		95	80	120		6010C
Copper	0.200	0.196		98	80	120		6010C
Iron	10.0	10.16		102	80	120		6010C
Lead	0.200	0.190		95	80	120		6010C
Magnesium	10.0	9.88		99	80	120		6010C
Manganese	0.200	0.203		102	80	120		6010C
Nickel	0.200	0.206		103	80	120		6010C
Potassium	10.0	9.25		92	80	120		6010C
Selenium	0.200	0.191		95	80	120		6010C
Silver	0.0500	0.0479		96	80	120		6010C
Sodium	10.0	9.56		95	80	120		6010C
Thallium	0.200	0.193		96	80	120		6010C
Vanadium	0.200	0.205		103	80	120		6010C
Zinc	0.200	0.204		102	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 480-441218/24-A

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

Sample Matrix: Water

LCS Source: MED_02_W2_00052

Analyte	(SDR) C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	9.76	10.0	98	80-120	1	20		6010C
Antimony	0.179	0.200	89	80-120	5	20		6010C
Barium	0.198	0.200	99	80-120	1	20		6010C
Beryllium	0.201	0.200	101	80-120	2	20		6010C
Cadmium	0.184	0.200	92	80-120	4	20		6010C
Calcium	9.48	10.0	95	80-120	3	20		6010C
Chromium	0.200	0.200	100	80-120	1	20		6010C
Cobalt	0.185	0.200	92	80-120	2	20		6010C
Copper	0.190	0.200	95	80-120	3	20		6010C
Iron	9.92	10.0	99	80-120	2	20		6010C
Lead	0.186	0.200	93	80-120	3	20		6010C
Magnesium	9.61	10.0	96	80-120	3	20		6010C
Manganese	0.199	0.200	99	80-120	2	20		6010C
Nickel	0.202	0.200	101	80-120	2	20		6010C
Potassium	9.32	10.0	93	80-120	1	20		6010C
Selenium	0.186	0.200	93	80-120	3	20		6010C
Silver	0.0465	0.0500	93	80-120	3	20		6010C
Sodium	9.64	10.0	96	80-120	1	20		6010C
Thallium	0.185	0.200	93	80-120	4	20		6010C
Vanadium	0.200	0.200	100	80-120	3	20		6010C
Zinc	0.199	0.200	99	80-120	3	20		6010C

SDR = Spike Duplicate Results

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 480-441218/24-A

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

Sample Matrix: Water

LCS Source: MED_01_W1_00054

Analyte	(SDR) C		Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	0.205		0.200	103	80-120	2	20		6010C

SDR = Spike Duplicate Results

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 480-441391/2-A

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

Sample Matrix: Water

LCS Source: MEH_HG1_WKG_01872

Analyte	Water (mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00667	0.00655		98	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 480-441391/3-A

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

Sample Matrix: Water

LCS Source: MEH_HG1_WKG_01872

Analyte	(SDR) C		Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.00665		0.00667	100	80-120	2	20		7470A

SDR = Spike Duplicate Results

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LAB CONTROL SAMPLE
METALS - DISSOLVED

Lab ID: LCS 480-441363/2-E

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

Sample Matrix: Water

LCS Source: MEH_HG1_WKG_01878

Analyte	Water (mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00667	0.00708		106	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-143899-1

SDG No:

Lab Name: TestAmerica Buffalo

Job No: 480-143899-1

Matrix: Water

Concentration Units: mg/L

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	Method
Aluminum	0.20	U	1.0	U	NC		6010C
Antimony	0.020	U	0.10	U	NC		6010C
Arsenic	0.015	U	0.075	U	NC		6010C
Barium	0.056		0.0560		0.27		6010C
Beryllium	0.0020	U	0.010	U	NC		6010C
Cadmium	0.0020	U	0.010	U	NC		6010C
Calcium	49.0		50.16		2.3		6010C
Chromium	0.0040	U	0.020	U	NC		6010C
Cobalt	0.0040	U	0.020	U	NC		6010C
Copper	0.010	U	0.050	U	NC		6010C
Iron	0.050	U	0.25	U	NC		6010C
Lead	0.010	U	0.050	U	NC		6010C
Magnesium	8.9		8.94		0.83		6010C
Manganese	0.00062	J	0.015	U	NC		6010C
Nickel	0.010	U	0.050	U	NC		6010C
Potassium	1.7		1.39	J	NC		6010C
Selenium	0.025	U	0.13	U	NC		6010C
Silver	0.0060	U	0.030	U	NC		6010C
Sodium	19.9		19.41		2.4		6010C
Thallium	0.020	U	0.10	U	NC		6010C
Vanadium	0.0050	U	0.025	U	NC		6010C
Zinc	0.0025	J	0.050	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 480-143899-1

SDG No:

Lab Name: TestAmerica Buffalo

Job No: 480-143899-1

Matrix: Water

Concentration Units: mg/L

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	Method
Aluminum	0.20	U	1.0	U	NC		6010C
Antimony	0.020	U	0.10	U	NC		6010C
Arsenic	0.015	U	0.075	U	NC		6010C
Barium	0.051		0.0513		0.06		6010C
Beryllium	0.0020	U	0.010	U	NC		6010C
Cadmium	0.0020	U	0.010	U	NC		6010C
Calcium	47.3		47.78		0.93		6010C
Chromium	0.0040	U	0.020	U	NC		6010C
Cobalt	0.0040	U	0.020	U	NC		6010C
Copper	0.010	U	0.050	U	NC		6010C
Iron	0.050	U	0.25	U	NC		6010C
Lead	0.010	U	0.050	U	NC		6010C
Magnesium	8.3		8.36		0.49		6010C
Manganese	0.0030	U	0.015	U	NC		6010C
Nickel	0.010	U	0.050	U	NC		6010C
Potassium	1.6		1.72	J	NC		6010C
Selenium	0.025	U	0.13	U	NC		6010C
Silver	0.0060	U	0.030	U	NC		6010C
Sodium	17.5		17.13		1.9		6010C
Thallium	0.020	U	0.10	U	NC		6010C
Vanadium	0.0050	U	0.025	U	NC		6010C
Zinc	0.0043	J	0.050	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-143899-1

SDG No:

Lab Name: TestAmerica Buffalo

Job No: 480-143899-1

Matrix: Water

Concentration Units: mg/L

Analyte	Initial Sample		Serial		% Difference	Q	Method
	Result (I)	C	Result (S)	C			
Mercury	0.00020	U	0.0010	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 480-143899-1

SDG No: _____

Lab Name: TestAmerica Buffalo

Job No: 480-143899-1

Matrix: Water

Concentration Units: mg/L

Analyte	Initial Sample		Serial		% Difference	Q	Method
	Result (I)	C	Result (S)	C			
Mercury	0.00020	U	0.0010	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1
 SDG Number: _____
 Matrix: Water Instrument ID: ICAP1
 Method: 6010C MDL Date: 07/17/2013 11:47
 Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Aluminum	308.215	0.2	0.06
Antimony	206.833	0.02	0.00679
Barium	455.403	0.002	0.0007
Beryllium	313.042	0.002	0.0003
Cadmium	228.802	0.002	0.0005
Calcium	317.933	0.5	0.1
Chromium	267.716	0.004	0.001
Cobalt	228.616	0.004	0.00063
Copper	327.396	0.01	0.0016
Iron	259.940	0.05	0.0193
Lead	220.353	0.01	0.003
Magnesium	279.079	0.2	0.0434
Manganese	257.610	0.003	0.0004
Nickel	231.604	0.01	0.00126
Potassium	766.490	0.5	0.1
Selenium	196.090	0.025	0.0087
Silver	328.068	0.006	0.0017
Sodium	589.592	1	0.324
Thallium	190.856	0.02	0.01024
Vanadium	292.402	0.005	0.0015
Zinc	206.200	0.01	0.0015

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Buffalo

Job Number: 480-143899-1

SDG Number: _____

Matrix: Water

Instrument ID: ICAP1

Method: 6010C

XMDL Date: 07/17/2013 11:47

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum	308.215	0.2	0.06
Antimony	206.833	0.02	0.00679
Barium	455.403	0.002	0.0007
Beryllium	313.042	0.002	0.0003
Cadmium	228.802	0.002	0.0005
Calcium	317.933	0.5	0.1
Chromium	267.716	0.004	0.001
Cobalt	228.616	0.004	0.00063
Copper	327.396	0.01	0.0016
Iron	259.940	0.05	0.0193
Lead	220.353	0.01	0.003
Magnesium	279.079	0.2	0.0434
Manganese	257.610	0.003	0.0004
Nickel	231.604	0.01	0.00126
Potassium	766.490	0.5	0.1
Selenium	196.090	0.025	0.0087
Silver	328.068	0.006	0.0017
Sodium	589.592	1	0.324
Thallium	190.856	0.02	0.01024
Vanadium	292.402	0.005	0.0015
Zinc	206.2	0.01	0.0015

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Buffalo

Job Number: 480-143899-1

SDG Number: _____

Matrix: Water

Instrument ID: ICAP2

Method: 6010C

MDL Date: 07/17/2013 11:47

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.015	0.00555

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1
SDG Number: _____
Matrix: Water Instrument ID: ICAP2
Method: 6010C XMDL Date: 07/17/2013 11:47

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Arsenic	189.042	0.015	0.00555

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1
 SDG Number: _____
 Matrix: Water Instrument ID: ICAP1
 Method: 6010C MDL Date: 07/17/2013 11:47
 Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Aluminum	308.215	0.2	0.06
Antimony	206.833	0.02	0.00679
Arsenic	189.042	0.015	0.00555
Barium	455.403	0.002	0.0007
Beryllium	313.042	0.002	0.0003
Cadmium	228.802	0.002	0.0005
Calcium	317.933	0.5	0.1
Chromium	267.716	0.004	0.001
Cobalt	228.616	0.004	0.00063
Copper	327.396	0.01	0.0016
Iron	259.940	0.05	0.0193
Lead	220.353	0.01	0.003
Magnesium	279.079	0.2	0.0434
Manganese	257.610	0.003	0.0004
Nickel	231.604	0.01	0.00126
Potassium	766.490	0.5	0.1
Selenium	196.090	0.025	0.0087
Silver	328.068	0.006	0.0017
Sodium	589.592	1	0.324
Thallium	190.856	0.02	0.01024
Vanadium	292.402	0.005	0.0015
Zinc	206.200	0.01	0.0015

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Buffalo

Job Number: 480-143899-1

SDG Number: _____

Matrix: Water

Instrument ID: ICAP1

Method: 6010C

XMDL Date: 07/17/2013 11:47

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum	308.215	0.2	0.06
Antimony	206.833	0.02	0.00679
Arsenic	189.042	0.015	0.00555
Barium	455.403	0.002	0.0007
Beryllium	313.042	0.002	0.0003
Cadmium	228.802	0.002	0.0005
Calcium	317.933	0.5	0.1
Chromium	267.716	0.004	0.001
Cobalt	228.616	0.004	0.00063
Copper	327.396	0.01	0.0016
Iron	259.940	0.05	0.0193
Lead	220.353	0.01	0.003
Magnesium	279.079	0.2	0.0434
Manganese	257.610	0.003	0.0004
Nickel	231.604	0.01	0.00126
Potassium	766.490	0.5	0.1
Selenium	196.090	0.025	0.0087
Silver	328.068	0.006	0.0017
Sodium	589.592	1	0.324
Thallium	190.856	0.02	0.01024
Vanadium	292.402	0.005	0.0015
Zinc	206.2	0.01	0.0015

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Buffalo

Job Number: 480-143899-1

SDG Number: _____

Matrix: Water

Instrument ID: LEEMAN5

Method: 7470A

MDL Date: 01/28/2010 00:00

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.0002	0.00012

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1
SDG Number: _____
Matrix: Water Instrument ID: LEEMAN5
Method: 7470A XMDL Date: 01/28/2010 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Mercury	253.7	0.0002	0.00012

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1
SDG Number: _____
Matrix: Water Instrument ID: LEEMAN5
Method: 7470A MDL Date: 01/28/2010 00:00
Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.0002	0.00012

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1
SDG Number: _____
Matrix: Water Instrument ID: LEEMAN5
Method: 7470A XMDL Date: 01/28/2010 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Mercury	253.7	0.0002	0.00012

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1

SDG No.: _____

ICP-AES Instrument ID: ICAP1 Date: 10/11/2018

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Li
Aluminum	308.215														
Antimony	206.833										0.007200		0.000109		
Arsenic	189.042										-0.012162				
Barium	455.403														
Beryllium	313.042														
Boron	208.959														
Cadmium	228.802			0.004783									-0.000004		
Calcium	317.933														
Chromium	267.716														
Cobalt	228.616														
Copper	327.396							0.000011							
Iron	259.940														
Lead	220.353	-0.000035										0.000881	0.000027		
Lithium	670.784														
Magnesium	279.079														
Manganese	257.610	0.000009											0.000002		
Molybdenum	202.030												0.000033		
Nickel	231.604														
Potassium	766.490														
Selenium	196.090	-0.000051													
Silicon	288.158														
Silver	328.068												-0.000006		
Sodium	589.592														
Strontium	407.771							0.000037							
Sulfur	182.034														
Thallium	190.856									0.001814					
Tin	189.989														
Titanium	334.904														
Vanadium	292.402												0.000014		
Zinc	206.200										-0.001821				

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1

SDG No.: _____

ICP-AES Instrument ID: ICAP1 Date: 10/11/2018

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	Pb	S	Sb	Se	Si	Sn	Sr	Ti	Tl
Aluminum	308.215														
Antimony	206.833														
Arsenic	189.042														
Barium	455.403														
Beryllium	313.042													-0.00783	
Boron	208.959			0.026459											
Cadmium	228.802														
Calcium	317.933														
Chromium	267.716		0.000092												
Cobalt	228.616			-0.001304										0.001955	
Copper	327.396														
Iron	259.940														
Lead	220.353										0.000250				
Lithium	670.784														
Magnesium	279.079		-0.004291												
Manganese	257.610														
Molybdenum	202.030														0.000327
Nickel	231.604														
Potassium	766.490														
Selenium	196.090														
Silicon	288.158													0.046973	
Silver	328.068		0.000090												
Sodium	589.592														
Strontium	407.771														
Sulfur	182.034														
Thallium	190.856														
Tin	189.989														
Titanium	334.904														
Vanadium	292.402			-0.013418										0.000525	
Zinc	206.200														

10-IN

Job Number: 480-143899-1

SDG No.:

Date: 10/11/2018

[illegible]

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Buffalo Job Number: 480-143899-1

SDG No.: _____

ICP-AES Instrument ID: ICAP2 Date: 10/11/2018

Analyte	Wave Length	Al	As	Ca	Ce	Co	Cr	Cu	Fe	Mg	Mn	Mo	S	Si	Ti
Aluminum	308.215														
Antimony	206.833						0.011657		-0.000068						
Arsenic	189.042						-0.003269		-0.000018						
Barium	455.403														
Beryllium	313.042														
Boron	208.959											0.041289			
Cadmium	228.802		0.004970												
Calcium	317.933														
Chromium	267.716								-0.000008						
Cobalt	228.616											-0.001279			0.001752
Copper	327.396			0.000019											
Iron	259.940														
Lead	220.353	-0.000049						0.000364	0.000025			-0.001962			
Lithium	670.784			0.00010											
Magnesium	279.079										-0.004543				
Manganese	257.610	0.000008							0.000002						
Molybdenum	202.030								-0.000006						
Nickel	231.604								0.000016						
Potassium	766.490														
Selenium	196.090														
Silicon	288.158						-0.010133								0.020979
Silver	328.068							-0.000153	-						-0.000125
Sodium	589.592														
Strontium	407.771			0.000036											
Sulfur	182.034														
Thallium	190.856					0.004564					0.000639				
Tin	189.989														
Titanium	334.904										0.000169	0.000791			
Vanadium	292.402								0.000014	-0.000005		-0.013637			0.000529
Zinc	206.200						-0.001858								

10-IN

Job Number: 480-143899-1

SDG No.:

Date: 10/11/2018

[illegible]

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Buffalo

Job No: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1

Date: 02/16/2017 09:07

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Aluminum	15	600	6010C
Antimony	15	10	6010C
Arsenic	15	5	6010C
Barium	15	10	6010C
Beryllium	15	25	6010C
Cadmium	15	5	6010C
Calcium	15	1000	6010C
Chromium	15	10	6010C
Cobalt	15	20	6010C
Copper	15	25	6010C
Iron	15	600	6010C
Lead	15	120	6010C
Magnesium	15	500	6010C
Manganese	15	50	6010C
Nickel	15	10	6010C
Potassium	15	600	6010C
Selenium	15	60	6010C
Silver	15	3	6010C
Sodium	15	5000	6010C
Thallium	15	20	6010C
Vanadium	15	5	6010C
Zinc	15	20	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Buffalo

Job No: 480-143899-1

SDG No.: _____

Instrument ID: ICAP2

Date: 03/07/2018 12:39

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Arsenic	15	5	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Buffalo

Job No: 480-143899-1

SDG No.: _____

Instrument ID: LEEMAN5

Date: 10/09/2018 16:19

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury	10	20	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 480-441218/1-A	10/24/2018 08:29	441218		50	50
LCS 480-441218/2-A	10/24/2018 08:29	441218		50	50
480-143899-1	10/24/2018 08:29	441218		50	50
480-143899-1 MS	10/24/2018 08:29	441218		50	50
480-143899-1 MSD	10/24/2018 08:29	441218		50	50
480-143899-2	10/24/2018 08:29	441218		50	50
480-143899-3	10/24/2018 08:29	441218		50	50
480-143899-4	10/24/2018 08:29	441218		50	50
480-143899-5	10/24/2018 08:29	441218		50	50
LCSD 480-441218/24-A	10/24/2018 08:29	441218		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 480-441363/1-B	10/25/2018 12:22	441697		50	50
LCS 480-441363/2-B	10/25/2018 12:22	441697		50	50
480-143899-1	10/25/2018 12:22	441697		50	50
480-143899-1 MS	10/25/2018 12:22	441697		50	50
480-143899-1 MSD	10/25/2018 12:22	441697		50	50
480-143899-2	10/25/2018 12:22	441697		50	50
480-143899-3	10/25/2018 12:22	441697		50	50
480-143899-4	10/25/2018 12:22	441697		50	50
480-143899-5	10/25/2018 12:22	441697		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 480-441391/1-A	10/24/2018 11:50	441391		30	50
LCS 480-441391/2-A	10/24/2018 11:50	441391		30	50
LCSD 480-441391/3-A	10/24/2018 11:50	441391		30	50
480-143899-1	10/24/2018 11:50	441391		30	50
480-143899-1 MS	10/24/2018 11:50	441391		30	50
480-143899-1 MSD	10/24/2018 11:50	441391		30	50
480-143899-2	10/24/2018 11:50	441391		30	50
480-143899-3	10/24/2018 11:50	441391		30	50
480-143899-4	10/24/2018 11:50	441391		30	50
480-143899-5	10/24/2018 11:50	441391		30	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 480-441363/1-E	10/29/2018 12:15	442303		30	50
LCS 480-441363/2-E	10/29/2018 12:15	442303		30	50
480-143899-1	10/29/2018 12:15	442303		30	50
480-143899-1 MS	10/29/2018 12:15	442303		30	50
480-143899-1 MSD	10/29/2018 12:15	442303		30	50
480-143899-2	10/29/2018 12:15	442303		30	50
480-143899-3	10/29/2018 12:15	442303		30	50
480-143899-4	10/29/2018 12:15	442303		30	50
480-143899-5	10/29/2018 12:15	442303		30	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/26/2018 08:36 End Date: 10/26/2018 16:50

Lab Sample ID	D / F	T y p e	Time	Analytes																			
				A g	A l	A s	B a	B e	C a	C d	C o	C r	C u	F e	K	M g	M n	N a	N i	P b	S b	S e	T l
ICIS 480-442100/1	1		08:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
IC 480-442100/2			08:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
IC 480-442100/3			08:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
IC 480-442100/4			08:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICV 480-442100/5	1		08:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICB 480-442100/6	1		08:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICVL 480-442100/7	1		08:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSA 480-442100/8	1		09:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSAB 480-442100/9	1		09:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZZ			09:10																				
ZZZZZZ			09:14																				
ZZZZZZ			09:18																				
ZZZZZZ			09:22																				
ZZZZZZ			09:26																				
CCV 480-442100/15			09:30																				
CCB 480-442100/16			09:34																				
CCV 480-442100/17	1		14:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 480-442100/18	1		14:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 480-442100/19	1		14:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MB 480-441363/1-B	1	D	14:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
LCS 480-441363/2-B	1	D	14:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-1	1	D	14:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-1 SD	5	D	14:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-1 PDS	1	D	14:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-1 MS	1	D	14:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-1 MSD	1	D	14:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-2	1	D	15:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-3	1	D	15:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV 480-442100/29	1		15:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 480-442100/30	1		15:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 480-442100/31	1		15:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-4	1	D	15:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-5	1	D	15:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZZ			15:28																				
ZZZZZZ			15:32																				
ZZZZZZ			15:36																				
ZZZZZZ			15:40																				
ZZZZZZ			15:44																				
ZZZZZZ			15:48																				
ZZZZZZ			15:52																				
CCV 480-442100/41	1		15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 480-442100/42	1		15:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/26/2018 08:36 End Date: 10/26/2018 16:50

Lab Sample ID	D / F	T y p e	Time	Analytes																			
				A g	A l	A s	B a	B e	C a	C d	C o	C r	C u	F e	K	M g	M n	N a	N i	P b	S b	S e	T l
CCVL 480-442100/43	1		16:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			16:07																				
ZZZZZZ			16:11																				
ZZZZZZ			16:15																				
ZZZZZZ			16:19																				
ZZZZZZ			16:23																				
CCV 480-442100/49			16:43																				
CCB 480-442100/50			16:46																				
CCVL 480-442100/51			16:50																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/26/2018 08:36 End Date: 10/26/2018 16:50

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				V	Z n																
ICIS 480-442100/1	1		08:36	X	X																
IC 480-442100/2			08:40	X	X																
IC 480-442100/3			08:44	X	X																
IC 480-442100/4			08:47	X	X																
ICV 480-442100/5	1		08:51	X	X																
ICB 480-442100/6	1		08:55	X	X																
ICVL 480-442100/7	1		08:59	X	X																
ICSA 480-442100/8	1		09:03	X	X																
ICSAB 480-442100/9	1		09:07	X	X																
ZZZZZZ			09:10																		
ZZZZZZ			09:14																		
ZZZZZZ			09:18																		
ZZZZZZ			09:22																		
ZZZZZZ			09:26																		
CCV 480-442100/15			09:30																		
CCB 480-442100/16			09:34																		
CCV 480-442100/17	1		14:21	X	X																
CCB 480-442100/18	1		14:25	X	X																
CCVL 480-442100/19	1		14:31	X	X																
MB 480-441363/1-B	1	D	14:35	X	X																
LCS 480-441363/2-B	1	D	14:39	X	X																
480-143899-1	1	D	14:43	X	X																
480-143899-1 SD	5	D	14:47	X	X																
480-143899-1 PDS	1	D	14:50	X	X																
480-143899-1 MS	1	D	14:54	X	X																
480-143899-1 MSD	1	D	14:58	X	X																
480-143899-2	1	D	15:01	X	X																
480-143899-3	1	D	15:05	X	X																
CCV 480-442100/29	1		15:09	X	X																
CCB 480-442100/30	1		15:13	X	X																
CCVL 480-442100/31	1		15:17	X	X																
480-143899-4	1	D	15:20	X	X																
480-143899-5	1	D	15:24	X	X																
ZZZZZZ			15:28																		
ZZZZZZ			15:32																		
ZZZZZZ			15:36																		
ZZZZZZ			15:40																		
ZZZZZZ			15:44																		
ZZZZZZ			15:48																		
ZZZZZZ			15:52																		
CCV 480-442100/41	1		15:56	X	X																
CCB 480-442100/42	1		15:59	X	X																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/26/2018 08:36 End Date: 10/26/2018 16:50

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				V	Z n																
CCVL 480-442100/43	1		16:03	X	X																
ZZZZZZ			16:07																		
ZZZZZZ			16:11																		
ZZZZZZ			16:15																		
ZZZZZZ			16:19																		
ZZZZZZ			16:23																		
CCV 480-442100/49			16:43																		
CCB 480-442100/50			16:46																		
CCVL 480-442100/51			16:50																		

Prep Types

D = Dissolved

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/31/2018 08:58 End Date: 10/31/2018 20:05

Lab Sample ID	D / F	T y p e	Time	Analytes																			
				A g	A l	A s	B a	B e	C a	C d	C o	C r	C u	F e	K	M g	M n	N a	N i	P b	S b	S e	T l
ICIS 480-442964/1	1		08:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
IC 480-442964/2			09:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
IC 480-442964/3			09:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
IC 480-442964/4			09:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICV 480-442964/5	1		09:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICB 480-442964/6	1		09:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICVL 480-442964/7	1		09:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSA 480-442964/8	1		09:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSAB 480-442964/9	1		09:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZZ			09:32																				
ZZZZZZ			09:36																				
ZZZZZZ			09:40																				
ZZZZZZ			09:44																				
ZZZZZZ			09:48																				
CCV 480-442964/15			09:52																				
CCB 480-442964/16			09:55																				
CCV 480-442964/17	1		17:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 480-442964/18	1		17:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 480-442964/19	1		17:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MB 480-441218/1-A	1	T	17:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
LCS 480-441218/2-A	1	T	17:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZZ			18:00																				
ZZZZZZ			18:03																				
ZZZZZZ			18:07																				
ZZZZZZ			18:11																				
ZZZZZZ			18:15																				
ZZZZZZ			18:19																				
ZZZZZZ			18:22																				
CCV 480-442964/29	1		18:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 480-442964/30	1		18:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 480-442964/31	1		18:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZZ			18:38																				
ZZZZZZ			18:41																				
ZZZZZZ			18:45																				
ZZZZZZ			18:50																				
ZZZZZZ			18:53																				
ZZZZZZ			18:57																				
ZZZZZZ			19:01																				
480-143899-1	1	T	19:05	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
480-143899-1 SD	5	T	19:09	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV 480-442964/41	1		19:13	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 480-442964/42	1		19:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/31/2018 08:58 End Date: 10/31/2018 20:05

Lab Sample ID	D / F	T y p e	Time	Analytes																		
				A g	A l	A s	B a	B e	C a	C d	C o	C r	C u	F e	K	M g	M n	N a	N i	P b	S b	S e
CCVL 480-442964/43	1		19:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-143899-1 PDS	1	T	19:24	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-143899-1 MS	1	T	19:28	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-143899-1 MSD	1	T	19:31	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-143899-2	1	T	19:35	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-143899-3	1	T	19:39	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-143899-4	1	T	19:43	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-143899-5	1	T	19:46	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCSD 480-441218/24-A	1	T	19:50	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			19:54																			
CCV 480-442964/53	1		19:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 480-442964/54	1		20:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 480-442964/55	1		20:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/31/2018 08:58 End Date: 10/31/2018 20:05

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				V	Z n																
ICIS 480-442964/1	1		08:58	X	X																
IC 480-442964/2			09:01	X	X																
IC 480-442964/3			09:05	X	X																
IC 480-442964/4			09:09	X	X																
ICV 480-442964/5	1		09:13	X	X																
ICB 480-442964/6	1		09:16	X	X																
ICVL 480-442964/7	1		09:20	X	X																
ICSA 480-442964/8	1		09:24	X	X																
ICSAB 480-442964/9	1		09:28	X	X																
ZZZZZZ			09:32																		
ZZZZZZ			09:36																		
ZZZZZZ			09:40																		
ZZZZZZ			09:44																		
ZZZZZZ			09:48																		
CCV 480-442964/15			09:52																		
CCB 480-442964/16			09:55																		
CCV 480-442964/17	1		17:41	X	X																
CCB 480-442964/18	1		17:44	X	X																
CCVL 480-442964/19	1		17:48	X	X																
MB 480-441218/1-A	1	T	17:52	X	X																
LCS 480-441218/2-A	1	T	17:56	X	X																
ZZZZZZ			18:00																		
ZZZZZZ			18:03																		
ZZZZZZ			18:07																		
ZZZZZZ			18:11																		
ZZZZZZ			18:15																		
ZZZZZZ			18:19																		
ZZZZZZ			18:22																		
CCV 480-442964/29	1		18:26	X	X																
CCB 480-442964/30	1		18:30	X	X																
CCVL 480-442964/31	1		18:34	X	X																
ZZZZZZ			18:38																		
ZZZZZZ			18:41																		
ZZZZZZ			18:45																		
ZZZZZZ			18:50																		
ZZZZZZ			18:53																		
ZZZZZZ			18:57																		
ZZZZZZ			19:01																		
480-143899-1	1	T	19:05	X	X																
480-143899-1 SD	5	T	19:09	X	X																
CCV 480-442964/41	1		19:13	X	X																
CCB 480-442964/42	1		19:16	X	X																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP1 Method: 6010C

Start Date: 10/31/2018 08:58 End Date: 10/31/2018 20:05

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				V	Z n																
CCVL 480-442964/43	1		19:20	X	X																
480-143899-1 PDS	1	T	19:24	X	X																
480-143899-1 MS	1	T	19:28	X	X																
480-143899-1 MSD	1	T	19:31	X	X																
480-143899-2	1	T	19:35	X	X																
480-143899-3	1	T	19:39	X	X																
480-143899-4	1	T	19:43	X	X																
480-143899-5	1	T	19:46	X	X																
LCSD 480-441218/24-A	1	T	19:50	X	X																
ZZZZZZ			19:54																		
CCV 480-442964/53	1		19:58	X	X																
CCB 480-442964/54	1		20:02	X	X																
CCVL 480-442964/55	1		20:05	X	X																

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP2 Method: 6010C

Start Date: 11/02/2018 09:30 End Date: 11/02/2018 13:30

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				A S																	
ICIS 480-443344/1	1		09:30	X																	
IC 480-443344/2			09:34	X																	
IC 480-443344/3			09:38	X																	
IC 480-443344/4			09:41	X																	
ICV 480-443344/5	1		09:45	X																	
ICB 480-443344/6	1		09:48	X																	
ICVL 480-443344/7	1		09:52	X																	
ICSA 480-443344/8	1		09:56	X																	
ICSAB 480-443344/9	1		09:59	X																	
ZZZZZZ			10:03																		
ZZZZZZ			10:07																		
ZZZZZZ			10:10																		
ZZZZZZ			10:14																		
ZZZZZZ			10:18																		
CCV 480-443344/15			10:21																		
CCB 480-443344/16			10:25																		
CCVL 480-443344/17			10:35																		
ZZZZZZ			10:39																		
ZZZZZZ			10:43																		
ZZZZZZ			10:46																		
ZZZZZZ			10:50																		
ZZZZZZ			10:53																		
ZZZZZZ			10:57																		
ZZZZZZ			11:01																		
ZZZZZZ			11:05																		
ZZZZZZ			11:08																		
CCV 480-443344/27	1		11:12	X																	
CCB 480-443344/28	1		11:15	X																	
CCVL 480-443344/29	1		11:19	X																	
ZZZZZZ			11:23																		
ZZZZZZ			11:26																		
ZZZZZZ			11:30																		
480-143899-1	1	T	11:34	X																	
480-143899-1 SD	5	T	11:37	X																	
480-143899-1 PDS	1	T	11:41	X																	
480-143899-1 MS	1	T	11:45	X																	
480-143899-1 MSD	1	T	11:48	X																	
480-143899-2	1	T	11:52	X																	
CCV 480-443344/39	1		11:55	X																	
CCB 480-443344/40	1		11:59	X																	
CCVL 480-443344/41	1		12:03	X																	
480-143899-3	1	T	12:06	X																	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: ICAP2 Method: 6010C

Start Date: 11/02/2018 09:30 End Date: 11/02/2018 13:30

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				A S																	
480-143899-4	1	T	12:10	X																	
480-143899-5	1	T	12:14	X																	
LCSD 480-441218/24-A	1	T	12:17	X																	
CCV 480-443344/46	1		12:39	X																	
CCB 480-443344/47	1		12:43	X																	
CCVL 480-443344/48	1		12:46	X																	
ZZZZZZ			13:19																		
CCV 480-443344/50			13:23																		
CCB 480-443344/51			13:26																		
CCVL 480-443344/52			13:30																		

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: LEEMAN5 Method: 7470A

Start Date: 10/24/2018 13:27 End Date: 10/24/2018 17:31

Lab Sample ID	D / F	T y p e	Time	Analytes															
				H g															
ZZZZZZ			13:27																
ZZZZZZ			13:53																
IC 480-441425/1-A			14:00	X															
IC 480-441425/2-A			14:01	X															
IC 480-441425/3-A			14:02	X															
IC 480-441425/4-A			14:04	X															
IC 480-441425/5-A			14:05	X															
IC 480-441425/6-A			14:06	X															
ICV 480-441545/9	1		14:12	X															
ICB 480-441545/10	1		14:14	X															
ICVL 480-441545/11	1		14:15	X															
CCV 480-441545/12			14:16																
CCB 480-441545/13			14:18																
ZZZZZZ			15:19																
ZZZZZZ			15:20																
ZZZZZZ			15:21																
ZZZZZZ			15:23																
ZZZZZZ			15:24																
ZZZZZZ			15:25																
ZZZZZZ			15:27																
ZZZZZZ			15:28																
ZZZZZZ			15:29																
ZZZZZZ			15:31																
CCV 480-441545/24			15:32																
CCB 480-441545/25			15:33																
ZZZZZZ			15:34																
ZZZZZZ			15:36																
ZZZZZZ			15:37																
ZZZZZZ			15:38																
ZZZZZZ			15:40																
RINSE 480-441545/31			15:41																
RINSE 480-441545/32			15:42																
RINSE 480-441545/33			15:44																
RINSE 480-441545/34			15:45																
RINSE 480-441545/35			15:46																
CCV 480-441545/36	1		15:47	X															
CCB 480-441545/37	1		15:49	X															
ZZZZZZ			15:50																
ZZZZZZ			15:51																
ZZZZZZ			15:53																
ZZZZZZ			15:54																
ZZZZZZ			15:55																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: LEEMAN5 Method: 7470A

Start Date: 10/24/2018 13:27 End Date: 10/24/2018 17:31

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				H g																	
MB 480-441391/1-A	1	T	15:57	X																	
LCS 480-441391/2-A	1	T	15:58	X																	
LCSD 480-441391/3-A	1	T	15:59	X																	
ZZZZZZ			16:00																		
ZZZZZZ			16:02																		
CCV 480-441545/48	1		16:03	X																	
CCB 480-441545/49	1		16:04	X																	
ZZZZZZ			16:06																		
ZZZZZZ			16:07																		
ZZZZZZ			16:08																		
ZZZZZZ			16:10																		
ZZZZZZ			16:11																		
ZZZZZZ			16:12																		
ZZZZZZ			16:14																		
ZZZZZZ			16:15																		
ZZZZZZ			16:16																		
480-143899-1	1	T	16:17	X																	
CCV 480-441545/60	1		16:19	X																	
CCB 480-441545/61	1		16:20	X																	
480-143899-1 SD	5	T	16:21	X																	
480-143899-1 MS	1	T	16:23	X																	
480-143899-1 MSD	1	T	16:24	X																	
480-143899-2	1	T	16:25	X																	
480-143899-3	1	T	16:27	X																	
480-143899-4	1	T	16:28	X																	
480-143899-5	1	T	16:29	X																	
ZZZZZZ			16:31																		
ZZZZZZ			16:32																		
ZZZZZZ			16:33																		
CCV 480-441545/72	1		16:34	X																	
CCB 480-441545/73	1		16:36	X																	
ZZZZZZ			16:37																		
ZZZZZZ			16:38																		
ZZZZZZ			16:40																		
ZZZZZZ			16:41																		
ZZZZZZ			16:42																		
ZZZZZZ			16:44																		
ZZZZZZ			16:45																		
ZZZZZZ			16:46																		
ZZZZZZ			16:47																		
ZZZZZZ			16:49																		
CCV 480-441545/84			16:50																		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: LEEMAN5 Method: 7470A

Start Date: 10/24/2018 13:27 End Date: 10/24/2018 17:31

Lab Sample ID	D / F	T y p e	Time	Analytes															
				H g															
CCB 480-441545/85			16:51																
ZZZZZZ			16:53																
ZZZZZZ			16:54																
ZZZZZZ			16:55																
ZZZZZZ			16:57																
ZZZZZZ			16:58																
ZZZZZZ			16:59																
ZZZZZZ			17:01																
ZZZZZZ			17:02																
ZZZZZZ			17:03																
ZZZZZZ			17:04																
CCV 480-441545/96			17:06																
CCB 480-441545/97			17:07																
CCVL 480-441545/98	1		17:08	X															
ZZZZZZ			17:10																
ZZZZZZ			17:11																
ZZZZZZ			17:12																
ZZZZZZ			17:14																
ZZZZZZ			17:15																
ZZZZZZ			17:16																
ZZZZZZ			17:18																
ZZZZZZ			17:19																
ZZZZZZ			17:20																
ZZZZZZ			17:21																
CCV 480-441545/109			17:23																
CCB 480-441545/110			17:24																
ZZZZZZ			17:25																
CCV 480-441545/112			17:27																
CCB 480-441545/113			17:28																
CCVL 480-441545/114			17:29																
RINSE 480-441545/115			17:31																

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: LEEMAN5 Method: 7470A

Start Date: 10/29/2018 13:09 End Date: 10/29/2018 16:17

Lab Sample ID	D / F	T y p e	Time	Analytes															
				H g															
ZZZZZZ			13:09																
IC 480-442362/1-A			13:10	X															
IC 480-442362/2-A			13:12	X															
IC 480-442362/3-A			13:13	X															
IC 480-442362/4-A			13:14	X															
IC 480-442362/5-A			13:15	X															
IC 480-442362/6-A			13:17	X															
ZZZZZZ			13:19																
ZZZZZZ			13:22																
ICV 480-442378/10	1		13:23	X															
ICB 480-442378/11	1		13:25	X															
ZZZZZZ			13:26																
ZZZZZZ			13:27																
ZZZZZZ			13:29																
ICVL 480-442378/15	1		13:32	X															
CCV 480-442378/16			13:33																
CCB 480-442378/17			13:35																
ZZZZZZ			14:35																
ZZZZZZ			14:36																
ZZZZZZ			14:37																
ZZZZZZ			14:39																
ZZZZZZ			14:40																
ZZZZZZ			14:41																
ZZZZZZ			14:43																
ZZZZZZ			14:44																
ZZZZZZ			14:45																
ZZZZZZ			14:47																
CCV 480-442378/28			14:48																
CCB 480-442378/29			14:49																
ZZZZZZ			14:50																
ZZZZZZ			14:52																
ZZZZZZ			14:53																
ZZZZZZ			14:54																
ZZZZZZ			14:56																
ZZZZZZ			14:57																
ZZZZZZ			14:58																
ZZZZZZ			15:00																
ZZZZZZ			15:01																
ZZZZZZ			15:02																
CCV 480-442378/40			15:03																
CCB 480-442378/41			15:05																
ZZZZZZ			15:06																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: LEEMAN5 Method: 7470A

Start Date: 10/29/2018 13:09 End Date: 10/29/2018 16:17

Lab Sample ID	D / F	T y p e	Time	Analytes															
				H g															
ZZZZZZ			15:07																
ZZZZZZ			15:09																
ZZZZZZ			15:10																
ZZZZZZ			15:11																
ZZZZZZ			15:13																
ZZZZZZ			15:14																
ZZZZZZ			15:15																
ZZZZZZ			15:16																
ZZZZZZ			15:18																
CCV 480-442378/52			15:19																
CCB 480-442378/53			15:20																
ZZZZZZ			15:22																
ZZZZZZ			15:23																
ZZZZZZ			15:24																
ZZZZZZ			15:26																
ZZZZZZ			15:27																
ZZZZZZ			15:28																
ZZZZZZ			15:30																
ZZZZZZ			15:31																
ZZZZZZ			15:32																
ZZZZZZ			15:33																
CCV 480-442378/64			15:35																
CCB 480-442378/65			15:36																
ZZZZZZ			15:37																
ZZZZZZ			15:39																
ZZZZZZ			15:40																
ZZZZZZ			15:41																
ZZZZZZ			15:43																
ZZZZZZ			15:44																
ZZZZZZ			15:45																
ZZZZZZ			15:47																
ZZZZZZ			15:48																
ZZZZZZ			15:49																
CCV 480-442378/76	1		15:50	X															
CCB 480-442378/77	1		15:52	X															
ZZZZZZ			15:53																
ZZZZZZ			15:54																
MB 480-441363/1-E	1	D	15:56	X															
LCS 480-441363/2-E	1	D	15:57	X															
ZZZZZZ			15:58																
ZZZZZZ			16:00																
480-143899-1	1	D	16:01	X															

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Instrument ID: LEEMAN5 Method: 7470A

Start Date: 10/29/2018 13:09 End Date: 10/29/2018 16:17

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				H g																	
480-143899-1 SD	5	D	16:02	X																	
480-143899-1 MS	1	D	16:03	X																	
480-143899-1 MSD	1	D	16:05	X																	
CCV 480-442378/88	1		16:06	X																	
CCB 480-442378/89	1		16:07	X																	
480-143899-2	1	D	16:09	X																	
480-143899-3	1	D	16:10	X																	
480-143899-4	1	D	16:11	X																	
480-143899-5	1	D	16:13	X																	
CCV 480-442378/94	1		16:14	X																	
CCB 480-442378/95	1		16:15	X																	
CCVL 480-442378/96	1		16:17	X																	

Prep Types

D = Dissolved

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICP Instrument ID: ICAP1 Start Date: 10/26/2018 End Date: 10/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q
ICIS 480-442100/1	08:36										
ICV 480-442100/5	08:51	95		97		97		99			
ICB 480-442100/6	08:55	100		99		100		100			
ICVL 480-442100/7	08:59	99		99		99		100			
ICSA 480-442100/8	09:03	77		87		86		95			
ICSAB 480-442100/9	09:07	77		87		87		95			
CCV 480-442100/17	14:21	92		94		96		98			
CCB 480-442100/18	14:25	99		97		100		100			
CCVL 480-442100/19	14:31	98		97		99		99			
MB 480-441363/1-B	14:35	97		96		99		101			
LCS 480-441363/2-B	14:39	95		95		97		100			
480-143899-1	14:43	93		93		97		99			
480-143899-1 SD	14:47	97		96		99		100			
480-143899-1 PDS	14:50	91		93		96		99			
480-143899-1 MS	14:54	91		92		95		99			
480-143899-1 MSD	14:58	91		92		95		98			
480-143899-2	15:01	93		93		96		99			
480-143899-3	15:05	92		93		96		98			
CCV 480-442100/29	15:09	92		94		96		98			
CCB 480-442100/30	15:13	98		96		99		98			
CCVL 480-442100/31	15:17	97		96		99		99			
480-143899-4	15:20	92		92		95		99			
480-143899-5	15:24	93		93		96		99			
CCV 480-442100/41	15:56	92		94		96		99			
CCB 480-442100/42	15:59	99		97		100		99			
CCVL 480-442100/43	16:03	98		97		98		99			

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.: _____

ICP Instrument ID: ICAP1

Start Date: 10/31/2018 End Date: 10/31/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q
ICIS 480-442964/1	08:58										
ICV 480-442964/5	09:13	94		96		97		98			
ICB 480-442964/6	09:16	99		99		99		99			
ICVL 480-442964/7	09:20	100		100		100		100			
ICSA 480-442964/8	09:24	76		85		85		94			
ICSAB 480-442964/9	09:28	76		86		85		94			
CCV 480-442964/17	17:41	92		98		95		97			
CCB 480-442964/18	17:44	98		101		98		98			
CCVL 480-442964/19	17:48	99		101		99		98			
MB 480-441218/1-A	17:52	99		102		99		101			
LCS 480-441218/2-A	17:56	96		101		97		100			
CCV 480-442964/29	18:26	92		100		95		98			
CCB 480-442964/30	18:30	98		104		98		99			
CCVL 480-442964/31	18:34	99		104		98		99			
480-143899-1	19:05	95		101		96		100			
480-143899-1 SD	19:09	98		104		98		100			
CCV 480-442964/41	19:13	93		101		95		98			
CCB 480-442964/42	19:16	99		104		98		97			
CCVL 480-442964/43	19:20	99		104		100		100			
480-143899-1 PDS	19:24	92		101		96		99			
480-143899-1 MS	19:28	92		100		95		99			
480-143899-1 MSD	19:31	92		100		95		99			
480-143899-2	19:35	95		101		96		99			
480-143899-3	19:39	93		100		96		99			
480-143899-4	19:43	93		100		96		99			
480-143899-5	19:46	94		101		96		99			
LCSD 480-441218/24-A	19:50	96		103		97		99			
CCV 480-442964/53	19:58	93		100		95		98			
CCB 480-442964/54	20:02	99		104		99		99			
CCVL 480-442964/55	20:05	99		104		99		98			

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

ICP Instrument ID: ICAP2 Start Date: 11/02/2018 End Date: 11/02/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q
ICIS 480-443344/1	09:30										
ICV 480-443344/5	09:45	101		100		101		101			
ICB 480-443344/6	09:48	100		99		99		99			
ICVL 480-443344/7	09:52	101		100		100		101			
ICSA 480-443344/8	09:56	89		94		96		99			
ICSAB 480-443344/9	09:59	90		94		96		100			
CCV 480-443344/27	11:12	102		99		99		98			
CCB 480-443344/28	11:15	102		99		98		97			
CCVL 480-443344/29	11:19	102		99		99		98			
480-143899-1	11:34	103		98		100		100			
480-143899-1 SD	11:37	103		99		99		100			
480-143899-1 PDS	11:41	101		97		99		100			
480-143899-1 MS	11:45	101		97		99		100			
480-143899-1 MSD	11:48	101		97		98		100			
480-143899-2	11:52	102		97		99		101			
CCV 480-443344/39	11:55	101		98		99		99			
CCB 480-443344/40	11:59	102		97		97		98			
CCVL 480-443344/41	12:03	102		99		99		98			
480-143899-3	12:06	102		97		99		100			
480-143899-4	12:10	102		96		99		100			
480-143899-5	12:14	102		97		99		100			
LCSD 480-441218/24-A	12:17	102		98		99		100			
CCV 480-443344/46	12:39	102		98		99		99			
CCB 480-443344/47	12:43	101		97		98		98			
CCVL 480-443344/48	12:46	102		98		98		98			

Run File: i1102618a

Instrument: ICAP1

Analyst: EMB

Data Review: 10/27/18

Spikes Ids: 4805384(W1), 4805383(W2), 4899315(Sn), 4899367(Ag), 4844446(Si),
4844449(S), 4370411(TCLP)

Pipette Ids: 12/26/18-(1-11)

Internal Standard: 4927696

Seq#	Run File ID	Sample ID	Date / Time	Type
1	i1102618a	ICIS-4957862	10/26/18 08:36 AM	Standard
2	i1102618a	IC-4954076	10/26/18 08:40 AM	Standard
3	i1102618a	IC-4927698	10/26/18 08:44 AM	Standard
4	i1102618a	IC-4927697	10/26/18 08:47 AM	Standard
5	i1102618a	ICV-4954074	10/26/18 08:51 AM	QC
6	i1102618a	ICB-4957862	10/26/18 08:55 AM	QC
7	i1102618a	iCVL-4954076	10/26/18 08:59 AM	QC
8	i1102618a	ICSA-4901305	10/26/18 09:03 AM	QC
9	i1102618a	ICSAB-4954073	10/26/18 09:07 AM	QC
10	i1102618a	ICEX1	10/26/18 09:10 AM	Unknown
11	i1102618a	ICEX2	10/26/18 09:14 AM	Unknown
12	i1102618a	ICEX3	10/26/18 09:18 AM	Unknown
13	i1102618a	ICEX4	10/26/18 09:22 AM	Unknown
14	i1102618a	ICEX5	10/26/18 09:26 AM	Unknown
15	i1102618a	CCV-4954075	10/26/18 09:30 AM	QC
16	i1102618a	CCB-4957862	10/26/18 09:34 AM	QC
17	i1102618a	CCVL-4954076	10/26/18 09:50 AM	QC
18	i1102618a	480-143525-A-7-D@5	10/26/18 09:53 AM	Unknown
19	i1102618a	480-143525-A-8-D@5	10/26/18 09:57 AM	Unknown
20	i1102618a	480-143525-A-11-D@5	10/26/18 10:01 AM	Unknown
21	i1102618a	480-143525-A-14-D@5	10/26/18 10:05 AM	Unknown
22	i1102618a	480-143525-A-15-D@5	10/26/18 10:09 AM	Unknown
23	i1102618a	480-143525-A-17-D@5	10/26/18 10:13 AM	Unknown
24	i1102618a	480-143525-A-18-D@5	10/26/18 10:17 AM	Unknown
25	i1102618a	480-143842-D-9-B	10/26/18 10:21 AM	Unknown
26	i1102618a	480-143803-C-4-A	10/26/18 10:25 AM	Unknown
27	i1102618a	CCV-4954075	10/26/18 10:29 AM	QC
28	i1102618a	CCB-4957862	10/26/18 10:32 AM	QC
29	i1102618a	CCVL-4954076	10/26/18 10:36 AM	QC
30	i1102618a	480-143844-C-1-A@2	10/26/18 10:40 AM	Unknown
31	i1102618a	480-143598-A-4-D@5	10/26/18 10:44 AM	Unknown
32	i1102618a	MB 480-440995/1-A	10/26/18 10:48 AM	Unknown
33	i1102618a	LCS 480-440995/2-A	10/26/18 10:52 AM	Unknown
34	i1102618a	480-143169-M-1-B	10/26/18 10:55 AM	Unknown
35	i1102618a	480-143169-M-1-Bsd@5	10/26/18 10:59 AM	Unknown
36	i1102618a	480-143169-M-1-Bpds	10/26/18 11:03 AM	Unknown
37	i1102618a	480-143169-M-1-C MS	10/26/18 11:07 AM	Unknown
38	i1102618a	480-143169-M-1-D MSD	10/26/18 11:10 AM	Unknown
39	i1102618a	CCV-4954075	10/26/18 11:14 AM	QC
40	i1102618a	CCB-4957862	10/26/18 11:18 AM	QC
41	i1102618a	CCVL-4954076	10/26/18 11:22 AM	QC
42	i1102618a	480-143169-M-2-B	10/26/18 11:26 AM	Unknown

43	i1102618a	480-143133-J-1-B	10/26/18 11:29 AM Unknown
44	i1102618a	480-143133-J-2-B	10/26/18 11:33 AM Unknown
45	i1102618a	480-143133-J-3-B	10/26/18 11:37 AM Unknown
46	i1102618a	480-143810-C-1-A	10/26/18 11:41 AM Unknown
47	i1102618a	480-143810-C-2-A	10/26/18 11:44 AM Unknown
48	i1102618a	480-143810-C-3-A	10/26/18 11:48 AM Unknown
49	i1102618a	480-143810-C-4-A	10/26/18 11:52 AM Unknown
50	i1102618a	480-143810-C-5-A	10/26/18 11:56 AM Unknown
51	i1102618a	CCV-4954075	10/26/18 12:00 PM QC
52	i1102618a	CCB-4957862	10/26/18 12:04 PM QC
53	i1102618a	CCVL-4954076	10/26/18 12:08 PM QC
54	i1102618a	480-143810-C-6-A	10/26/18 12:11 PM Unknown
55	i1102618a	480-143810-C-7-A	10/26/18 12:15 PM Unknown
56	i1102618a	480-143810-C-8-A	10/26/18 12:19 PM Unknown
57	i1102618a	blank	10/26/18 12:23 PM Unknown
58	i1102618a	480-141985-A-1-A@50	10/26/18 12:27 PM Unknown
59	i1102618a	480-141985-A-2-A@20	10/26/18 12:31 PM Unknown
60	i1102618a	480-141985-A-3-A@20	10/26/18 12:34 PM Unknown
61	i1102618a	480-141985-A-4-A@10	10/26/18 12:38 PM Unknown
62	i1102618a	LB 480-441481/1-B	10/26/18 12:42 PM Unknown
63	i1102618a	CCV-4954075	10/26/18 12:46 PM QC
64	i1102618a	CCB-4957862	10/26/18 12:50 PM QC
65	i1102618a	CCVL-4954076	10/26/18 12:54 PM QC
66	i1102618a	MB 480-441638/2-A	10/26/18 12:58 PM Unknown
67	i1102618a	LCS 480-441638/3-A	10/26/18 01:01 PM Unknown
68	i1102618a	480-143549-A-1-C	10/26/18 01:05 PM Unknown
69	i1102618a	480-143549-A-1-C@2	10/26/18 01:09 PM Unknown
70	i1102618a	480-143948-A-1-C	10/26/18 01:13 PM Unknown
71	i1102618a	480-143948-A-2-C	10/26/18 01:17 PM Unknown
72	i1102618a	480-143948-A-2-Csd@5	10/26/18 01:21 PM Unknown
73	i1102618a	480-143948-A-2-Cpds	10/26/18 01:25 PM Unknown
74	i1102618a	480-143948-A-2-D MS	10/26/18 01:29 PM Unknown
75	i1102618a	CCV-4954075	10/26/18 01:33 PM QC
76	i1102618a	CCB-4957862	10/26/18 01:37 PM QC
77	i1102618a	CCVL-4954076	10/26/18 01:41 PM QC
78	i1102618a	480-143948-A-2-E MSD	10/26/18 01:45 PM Unknown
79	i1102618a	480-143948-A-3-C	10/26/18 01:49 PM Unknown
80	i1102618a	480-143948-A-4-C	10/26/18 01:53 PM Unknown
81	i1102618a	480-143948-A-5-C	10/26/18 01:57 PM Unknown
82	i1102618a	480-143948-A-6-C	10/26/18 02:01 PM Unknown
83	i1102618a	480-143948-A-7-C	10/26/18 02:05 PM Unknown
84	i1102618a	480-143948-A-8-C	10/26/18 02:09 PM Unknown
85	i1102618a	480-143948-A-9-C	10/26/18 02:13 PM Unknown
86	i1102618a	480-143948-A-10-C	10/26/18 02:17 PM Unknown
87	i1102618a	CCV-4954075	10/26/18 02:21 PM QC
88	i1102618a	CCB-4957862	10/26/18 02:25 PM QC
89	i1102618a	CCVL-4954076	10/26/18 02:31 PM QC
90	i1102618a	MB 480-441363/1-B	10/26/18 02:35 PM Unknown
91	i1102618a	LCS 480-441363/2-B	10/26/18 02:39 PM Unknown
92	i1102618a	480-143899-B-1-D	10/26/18 02:43 PM Unknown
93	i1102618a	480-143899-B-1-Dsd@5	10/26/18 02:47 PM Unknown
94	i1102618a	480-143899-B-1-Dpds	10/26/18 02:50 PM Unknown

95	i1102618a	480-143899-B-1-E MS	10/26/18 02:54 PM Unknown
96	i1102618a	480-143899-B-1-F MSD	10/26/18 02:58 PM Unknown
97	i1102618a	480-143899-B-2-B	10/26/18 03:01 PM Unknown
98	i1102618a	480-143899-B-3-B	10/26/18 03:05 PM Unknown
99	i1102618a	CCV-4954075	10/26/18 03:09 PM QC
100	i1102618a	CCB-4957862	10/26/18 03:13 PM QC
101	i1102618a	CCVL-4954076	10/26/18 03:17 PM QC
102	i1102618a	480-143899-B-4-B	10/26/18 03:20 PM Unknown
103	i1102618a	480-143899-B-5-B	10/26/18 03:24 PM Unknown
104	i1102618a	480-143733-A-15-B	10/26/18 03:28 PM Unknown
105	i1102618a	480-143432-A-1-B	10/26/18 03:32 PM Unknown
106	i1102618a	480-143432-A-1-B@5	10/26/18 03:36 PM Unknown
107	i1102618a	480-143794-A-1-B	10/26/18 03:40 PM Unknown
108	i1102618a	480-143641-E-4-B	10/26/18 03:44 PM Unknown
109	i1102618a	480-143641-E-8-B	10/26/18 03:48 PM Unknown
110	i1102618a	480-143641-E-9-B	10/26/18 03:52 PM Unknown
111	i1102618a	CCV-4954075	10/26/18 03:56 PM QC
112	i1102618a	CCB-4957862	10/26/18 03:59 PM QC
113	i1102618a	CCVL-4954076	10/26/18 04:03 PM QC
114	i1102618a	480-143803-C-1-B	10/26/18 04:07 PM Unknown
115	i1102618a	480-143474-D-3-B	10/26/18 04:11 PM Unknown
116	i1102618a	480-143474-F-1-B	10/26/18 04:15 PM Unknown
117	i1102618a	480-143474-F-1-B@5	10/26/18 04:19 PM Unknown
118	i1102618a	480-143539-B-1-B	10/26/18 04:23 PM Unknown
119	i1102618a	blank	10/26/18 04:27 PM Unknown
120	i1102618a	MB 480-441159/1-A	10/26/18 04:31 PM Unknown
121	i1102618a	LCSSRM 480-441159/2-	10/26/18 04:35 PM Unknown
122	i1102618a	480-143525-B-20-A	10/26/18 04:39 PM Unknown
123	i1102618a	CCV-4954075	10/26/18 04:43 PM QC
124	i1102618a	CCB-4957862	10/26/18 04:46 PM QC
125	i1102618a	CCVL-4954076	10/26/18 04:50 PM QC
126	i1102618a	480-143525-B-21-B	10/26/18 04:54 PM Unknown
127	i1102618a	480-143525-B-22-B	10/26/18 04:58 PM Unknown
128	i1102618a	480-143525-B-23-B	10/26/18 05:02 PM Unknown
129	i1102618a	480-143525-B-24-B	10/26/18 05:06 PM Unknown
130	i1102618a	480-143525-A-25-F	10/26/18 05:10 PM Unknown
131	i1102618a	143525-A-25-Fsd@5	10/26/18 05:14 PM Unknown
132	i1102618a	480-143525-A-25-Fpds	10/26/18 05:18 PM Unknown
133	i1102618a	480-143525-A-25-G MS	10/26/18 05:22 PM Unknown
134	i1102618a	blank	10/26/18 05:26 PM Unknown
135	i1102618a	CCV-4954075	10/26/18 05:30 PM QC
136	i1102618a	CCB-4957862	10/26/18 05:34 PM QC
137	i1102618a	CCVL-4954076	10/26/18 05:37 PM QC
138	i1102618a	143525-A-25-H MSd	10/26/18 05:41 PM Unknown
139	i1102618a	480-143525-B-26-B	10/26/18 05:45 PM Unknown
140	i1102618a	480-143525-A-27-C	10/26/18 05:49 PM Unknown
141	i1102618a	480-143525-A-28-C	10/26/18 05:53 PM Unknown
142	i1102618a	480-143525-A-29-C	10/26/18 05:57 PM Unknown
143	i1102618a	480-143525-A-30-C	10/26/18 06:01 PM Unknown
144	i1102618a	480-143525-B-31-B	10/26/18 06:05 PM Unknown
145	i1102618a	480-143525-B-32-B	10/26/18 06:09 PM Unknown
146	i1102618a	480-143525-B-33-B	10/26/18 06:13 PM Unknown

147	i1102618a	CCV-4954075	10/26/18 06:17 PM QC
148	i1102618a	CCB-4957862	10/26/18 06:21 PM QC
149	i1102618a	CCVL-4954076	10/26/18 06:25 PM QC
150	i1102618a	MB 480-441183/1-A	10/26/18 06:28 PM Unknown
151	i1102618a	LCSSRM 480-441183/2-	10/26/18 06:32 PM Unknown
152	i1102618a	480-143579-D-5-A	10/26/18 06:36 PM Unknown
153	i1102618a	480-143579-D-6-A	10/26/18 06:40 PM Unknown
154	i1102618a	480-143579-B-7-A	10/26/18 06:44 PM Unknown
155	i1102618a	480-143579-B-7-Asd@5	10/26/18 06:48 PM Unknown
156	i1102618a	480-143579-B-7-Apds	10/26/18 06:51 PM Unknown
157	i1102618a	480-143579-B-7-B MS	10/26/18 06:55 PM Unknown
158	i1102618a	480-143579-B-7-C MSD	10/26/18 06:59 PM Unknown
159	i1102618a	CCV-4954075	10/26/18 07:03 PM QC
160	i1102618a	CCB-4957862	10/26/18 07:07 PM QC
161	i1102618a	CCVL-4954076	10/26/18 07:11 PM QC
162	i1102618a	480-143588-B-2-A	10/26/18 07:15 PM Unknown
163	i1102618a	480-143588-B-4-A	10/26/18 07:18 PM Unknown
164	i1102618a	480-143588-A-6-A	10/26/18 07:22 PM Unknown
165	i1102618a	480-143588-A-7-A	10/26/18 07:26 PM Unknown
166	i1102618a	480-143588-B-8-A	10/26/18 07:30 PM Unknown
167	i1102618a	480-143588-B-9-A	10/26/18 07:34 PM Unknown
168	i1102618a	480-143588-B-10-A	10/26/18 07:38 PM Unknown
169	i1102618a	480-143588-B-11-A	10/26/18 07:42 PM Unknown
170	i1102618a	480-143588-B-12-A	10/26/18 07:46 PM Unknown
171	i1102618a	CCV-4954075	10/26/18 07:50 PM QC
172	i1102618a	CCB-4957862	10/26/18 07:53 PM QC
173	i1102618a	CCVL-4954076	10/26/18 07:57 PM QC
174	i1102618a	480-143588-B-13-A	10/26/18 08:01 PM Unknown
175	i1102618a	480-143588-B-14-A	10/26/18 08:05 PM Unknown
176	i1102618a	blank	10/26/18 08:09 PM Unknown
177	i1102618a	MB 480-440321/1-A	10/26/18 08:13 PM Unknown
178	i1102618a	LCS 480-440321/2-A	10/26/18 08:16 PM Unknown
179	i1102618a	480-143538-D-19-A	10/26/18 08:20 PM Unknown
180	i1102618a	480-143540-D-1-A	10/26/18 08:24 PM Unknown
181	i1102618a	480-143540-D-2-A	10/26/18 08:28 PM Unknown
182	i1102618a	480-143540-D-3-A	10/26/18 08:32 PM Unknown
183	i1102618a	CCV-4954075	10/26/18 08:36 PM QC
184	i1102618a	CCB-4957862	10/26/18 08:40 PM QC
185	i1102618a	CCVL-4954076	10/26/18 08:44 PM QC
186	i1102618a	480-143540-D-4-B	10/26/18 08:47 PM Unknown
187	i1102618a	480-143540-D-4-Bsd@5	10/26/18 08:51 PM Unknown
188	i1102618a	480-143540-D-4-Bpds	10/26/18 08:55 PM Unknown
189	i1102618a	480-143540-D-4-C MS	10/26/18 08:59 PM Unknown
190	i1102618a	480-143540-D-4-D MSD	10/26/18 09:03 PM Unknown
191	i1102618a	480-143540-D-5-A	10/26/18 09:07 PM Unknown
192	i1102618a	480-143546-D-1-A	10/26/18 09:11 PM Unknown
193	i1102618a	480-143546-D-2-A	10/26/18 09:15 PM Unknown
194	i1102618a	480-143550-D-1-A	10/26/18 09:18 PM Unknown
195	i1102618a	CCV-4954075	10/26/18 09:22 PM QC
196	i1102618a	CCB-4957862	10/26/18 09:26 PM QC
197	i1102618a	CCVL-4954076	10/26/18 09:30 PM QC
198	i1102618a	480-143550-D-2-A	10/26/18 09:34 PM Unknown

199	i1102618a	480-143550-D-3-A	10/26/18 09:38 PM Unknown
200	i1102618a	480-143550-D-4-A	10/26/18 09:41 PM Unknown
201	i1102618a	480-143550-D-5-A	10/26/18 09:45 PM Unknown
202	i1102618a	480-143550-D-6-A	10/26/18 09:49 PM Unknown
203	i1102618a	480-143550-D-7-A	10/26/18 09:53 PM Unknown
204	i1102618a	480-143550-D-8-A	10/26/18 09:57 PM Unknown
205	i1102618a	480-143252-A-1-A	10/26/18 10:01 PM Unknown
206	i1102618a	480-143252-B-2-A	10/26/18 10:04 PM Unknown
207	i1102618a	CCV-4954075	10/26/18 10:08 PM QC
208	i1102618a	CCB-4957862	10/26/18 10:12 PM QC
209	i1102618a	CCVL-4954076	10/26/18 10:16 PM QC
210	i1102618a	480-143252-B-3-A	10/26/18 10:20 PM Unknown
211	i1102618a	480-143252-A-4-A	10/26/18 10:24 PM Unknown
212	i1102618a	MB 480-441752/1-A	10/26/18 10:28 PM Unknown
213	i1102618a	LCSSRM 480-441752/2-	10/26/18 10:31 PM Unknown
214	i1102618a	480-143974-A-1-B	10/26/18 10:35 PM Unknown
215	i1102618a	480-143974-A-1-Bsd@5	10/26/18 10:39 PM Unknown
216	i1102618a	480-143974-A-1-Bpds	10/26/18 10:43 PM Unknown
217	i1102618a	480-143974-A-1-C MS	10/26/18 10:47 PM Unknown
218	i1102618a	480-143974-A-1-D MSD	10/26/18 10:51 PM Unknown
219	i1102618a	CCV-4954075	10/26/18 10:55 PM QC
220	i1102618a	CCB-4957862	10/26/18 10:59 PM QC
221	i1102618a	CCVL-4954076	10/26/18 11:03 PM QC
222	i1102618a	MB 480-441765/1-A	10/26/18 11:06 PM Unknown
223	i1102618a	LCS 480-441765/2-A	10/26/18 11:10 PM Unknown
224	i1102618a	480-143751-A-1-A	10/26/18 11:14 PM Unknown
225	i1102618a	480-143751-A-1-Asd@5	10/26/18 11:18 PM Unknown
226	i1102618a	480-143751-A-1-Apds	10/26/18 11:22 PM Unknown
227	i1102618a	480-143751-A-1-B MS	10/26/18 11:25 PM Unknown
228	i1102618a	480-143751-A-1-C MSD	10/26/18 11:29 PM Unknown
229	i1102618a	480-143755-C-1-A	10/26/18 11:33 PM Unknown
230	i1102618a	480-143755-A-2-A	10/26/18 11:36 PM Unknown
231	i1102618a	CCV-4954075	10/26/18 11:40 PM QC
232	i1102618a	CCB-4957862	10/26/18 11:44 PM QC
233	i1102618a	CCVL-4954076	10/26/18 11:48 PM QC
234	i1102618a	480-143756-D-1-A	10/26/18 11:52 PM Unknown
235	i1102618a	480-143756-D-2-A	10/26/18 11:55 PM Unknown
236	i1102618a	480-143781-C-1-A	10/26/18 11:59 PM Unknown
237	i1102618a	480-143782-A-1-A	10/27/18 12:03 AM Unknown
238	i1102618a	480-143782-A-2-A	10/27/18 12:07 AM Unknown
239	i1102618a	480-143782-A-3-A	10/27/18 12:11 AM Unknown
240	i1102618a	480-143782-A-4-A	10/27/18 12:14 AM Unknown
241	i1102618a	480-143782-A-5-A	10/27/18 12:18 AM Unknown
242	i1102618a	480-143782-A-6-A	10/27/18 12:22 AM Unknown
243	i1102618a	CCV-4954075	10/27/18 12:26 AM QC
244	i1102618a	CCB-4957862	10/27/18 12:29 AM QC
245	i1102618a	CCVL-4954076	10/27/18 12:33 AM QC
246	i1102618a	480-143782-A-7-A	10/27/18 12:37 AM Unknown
247	i1102618a	480-143782-A-8-A	10/27/18 12:41 AM Unknown
248	i1102618a	480-143132-F-2-C	10/27/18 12:45 AM Unknown
249	i1102618a	480-143132-F-3-C	10/27/18 12:48 AM Unknown
250	i1102618a	480-143132-F-4-C	10/27/18 12:52 AM Unknown

251	i1102618a	480-143294-A-1-A	10/27/18 12:56 AM Unknown
252	i1102618a	480-143294-A-1-A@5	10/27/18 01:00 AM Unknown
253	i1102618a	blank	10/27/18 01:04 AM Unknown
254	i1102618a	blank	10/27/18 01:08 AM Unknown
255	i1102618a	CCV-4954075	10/27/18 01:12 AM QC
256	i1102618a	CCB-4957862	10/27/18 01:16 AM QC
257	i1102618a	CCVL-4954076	10/27/18 01:19 AM QC
258	i1102618a	MB 480-440596/1-A	10/27/18 01:23 AM Unknown
259	i1102618a	LCS 480-440596/2-A	10/27/18 01:27 AM Unknown
260	i1102618a	480-143693-A-1-A	10/27/18 01:31 AM Unknown
261	i1102618a	480-143693-A-1-Asd@5	10/27/18 01:35 AM Unknown
262	i1102618a	480-143693-A-1-Apds	10/27/18 01:38 AM Unknown
263	i1102618a	480-143693-A-1-B MS	10/27/18 01:42 AM Unknown
264	i1102618a	480-143693-A-1-C MSD	10/27/18 01:46 AM Unknown
265	i1102618a	480-143693-A-2-A	10/27/18 01:49 AM Unknown
266	i1102618a	480-143693-A-3-A	10/27/18 01:53 AM Unknown
267	i1102618a	CCV-4954075	10/27/18 01:57 AM QC
268	i1102618a	CCB-4957862	10/27/18 02:01 AM QC
269	i1102618a	CCVL-4954076	10/27/18 02:04 AM QC
270	i1102618a	480-143693-A-4-A	10/27/18 02:08 AM Unknown
271	i1102618a	480-143693-A-6-A	10/27/18 02:12 AM Unknown
272	i1102618a	480-143693-A-7-A	10/27/18 02:16 AM Unknown
273	i1102618a	480-143693-A-8-A	10/27/18 02:20 AM Unknown
274	i1102618a	480-143693-A-9-A	10/27/18 02:23 AM Unknown
275	i1102618a	480-143693-A-10-A	10/27/18 02:27 AM Unknown
276	i1102618a	480-143639-E-1-A	10/27/18 02:31 AM Unknown
277	i1102618a	480-143639-E-2-A	10/27/18 02:35 AM Unknown
278	i1102618a	480-143641-D-1-B	10/27/18 02:39 AM Unknown
279	i1102618a	CCV-4954075	10/27/18 02:42 AM QC
280	i1102618a	CCB-4957862	10/27/18 02:46 AM QC
281	i1102618a	CCVL-4954076	10/27/18 02:50 AM QC
282	i1102618a	480-143641-D-2-B	10/27/18 02:54 AM Unknown
283	i1102618a	480-143641-D-3-B	10/27/18 02:58 AM Unknown
284	i1102618a	480-143641-D-4-B	10/27/18 03:01 AM Unknown
285	i1102618a	480-143641-D-5-D	10/27/18 03:05 AM Unknown
286	i1102618a	480-143641-D-6-B	10/27/18 03:09 AM Unknown
287	i1102618a	480-143641-D-9-B	10/27/18 03:13 AM Unknown
288	i1102618a	480-143641-D-10-B	10/27/18 03:17 AM Unknown
289	i1102618a	480-143506-C-3-A	10/27/18 03:21 AM Unknown
290	i1102618a	blank	10/27/18 03:25 AM Unknown
291	i1102618a	CCV-4954075	10/27/18 03:29 AM QC
292	i1102618a	CCB-4957862	10/27/18 03:32 AM QC
293	i1102618a	CCVL-4954076	10/27/18 03:36 AM QC
294	i1102618a	MB 480-441514/1-A	10/27/18 03:40 AM Unknown
295	i1102618a	LCS 480-441514/2-A	10/27/18 03:44 AM Unknown
296	i1102618a	480-143842-C-1-A	10/27/18 03:48 AM Unknown
297	i1102618a	480-143842-C-1-Asd@5	10/27/18 03:51 AM Unknown
298	i1102618a	480-143842-C-1-Apds	10/27/18 03:55 AM Unknown
299	i1102618a	480-143842-C-1-B MS	10/27/18 03:59 AM Unknown
300	i1102618a	480-143842-C-1-C MSD	10/27/18 04:03 AM Unknown
301	i1102618a	480-143842-D-2-A	10/27/18 04:06 AM Unknown
302	i1102618a	480-143842-C-3-A	10/27/18 04:10 AM Unknown

303	i1102618a	CCV-4954075	10/27/18 04:14 AM QC
304	i1102618a	CCB-4957862	10/27/18 04:18 AM QC
305	i1102618a	CCVL-4954076	10/27/18 04:21 AM QC
306	i1102618a	480-143842-C-4-A	10/27/18 04:25 AM Unknown
307	i1102618a	480-143842-C-5-B	10/27/18 04:29 AM Unknown
308	i1102618a	480-143842-C-6-A	10/27/18 04:33 AM Unknown
309	i1102618a	480-143842-C-7-A	10/27/18 04:37 AM Unknown
310	i1102618a	480-143842-C-8-A	10/27/18 04:41 AM Unknown
311	i1102618a	480-143842-C-9-A	10/27/18 04:44 AM Unknown
312	i1102618a	480-143842-C-10-A	10/27/18 04:48 AM Unknown
313	i1102618a	480-143842-C-11-A	10/27/18 04:52 AM Unknown
314	i1102618a	480-143842-C-13-A	10/27/18 04:56 AM Unknown
315	i1102618a	CCV-4954075	10/27/18 05:00 AM QC
316	i1102618a	CCB-4957862	10/27/18 05:03 AM QC
317	i1102618a	CCVL-4954076	10/27/18 05:07 AM QC
318	i1102618a	ICSA-4901305	10/27/18 05:11 AM QC
319	i1102618a	ICSAB-4954073	10/27/18 05:15 AM QC
320	i1102618a	CCV-4954075	10/27/18 05:19 AM QC
321	i1102618a	CCB-4957862	10/27/18 05:23 AM QC

i1102618a

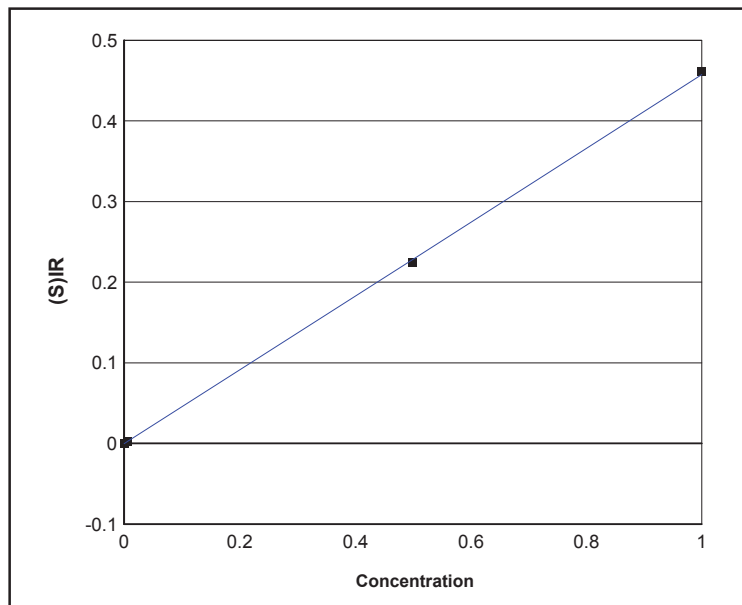
Author: emb

Published: 10/27/2018 8:06:32AM

Instrument Name: iCAP1

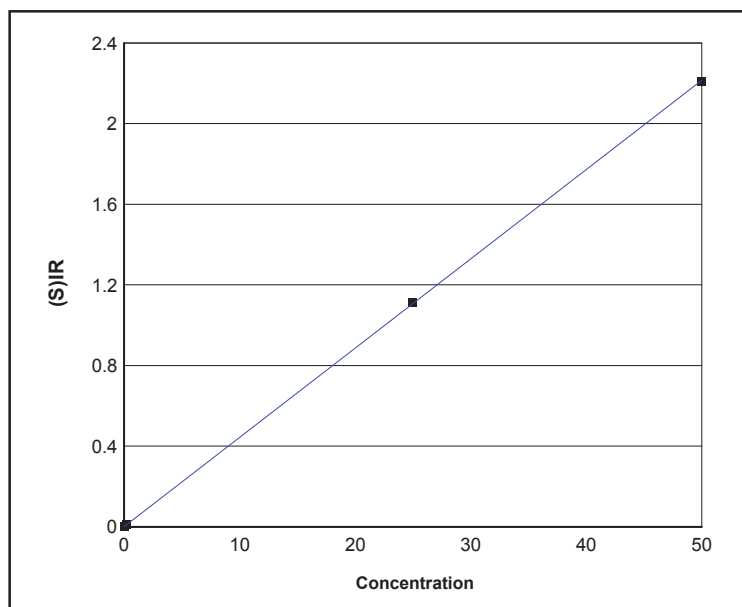
Serial Number: 20094603

Method Name: oct2018updatediecs (24)



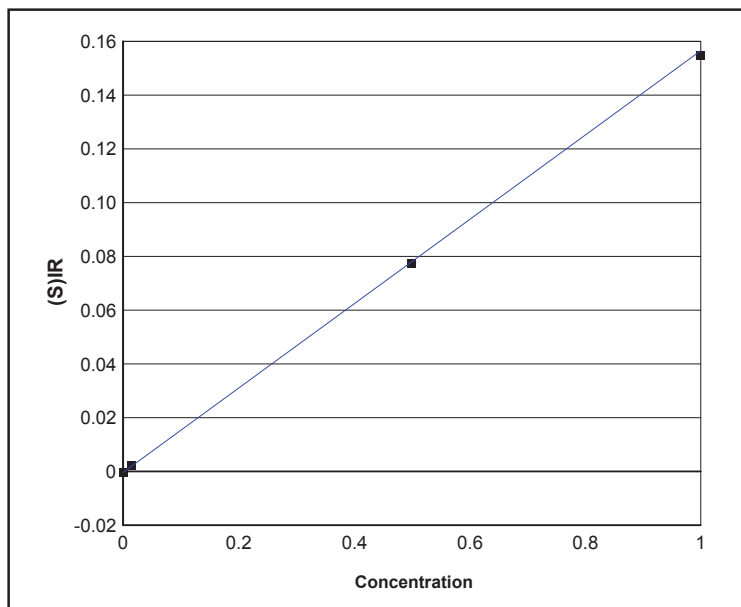
Element Name:		Ag	
Element Wavelength:		Ag 328.068 nm	
Concentration Units:		ppm	
Date of Calibration:		10/26/2018 8:51:33AM	
Date of Fit:		10/26/2018 9:44:35AM	
Type of Fit:		Linear	
Correlation:		0.99993	
A0 (Offset):		-0.00015442	
A1 (Gain):		0.45755	
A2 (Curvature):		0.00000	
n (Exponent):		1.0000	
Reslope		QC Normalize	
Slope:		1.0000	Slope factor: 1.0000
Y Int:		0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000003999	0.0000003999	0.00000	-0.00015423	0.000050848	1
IC-4954076	0.0060000	0.0056441	-0.00035594	-5.9323	0.0024280	0.000012092	1
IC-4927698	0.50000	0.49231	-0.0076850	-1.5370	0.22505	0.00021257	1
IC-4927697	1.0000	1.0080	0.0080411	0.80411	0.46097	0.0012028	1



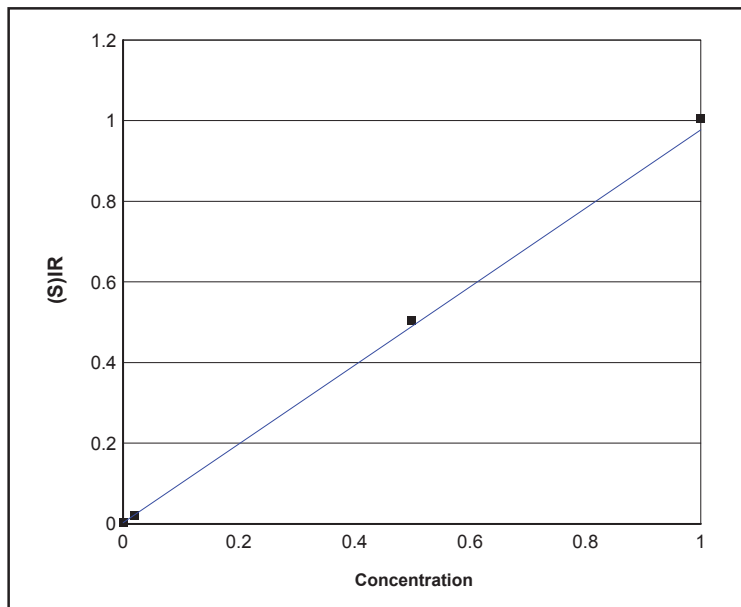
Element Name:		Al	
Element Wavelength:		Al 308.215 nm	
Concentration Units:		ppm	
Date of Calibration:		10/26/2018 8:51:33AM	
Date of Fit:		10/26/2018 9:44:35AM	
Type of Fit:		Linear	
Correlation:		0.99999	
A0 (Offset):		0.00062602	
A1 (Gain):		0.044293	
A2 (Curvature):		0.00000	
n (Exponent):		1.0000	
Reslope		QC Normalize	
Slope:		1.0000	Slope factor: 1.0000
Y Int:		0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000017493	-0.0000017493	0.00000	0.00062594	0.00019514	1
IC-4954076	0.20000	0.20114	0.0011443	0.57217	0.0095352	0.00053778	1
IC-4927698	25.000	25.152	0.15238	0.60952	1.1147	0.00077058	1
IC-4927697	50.000	49.846	-0.15352	-0.30705	2.2085	0.0017714	1



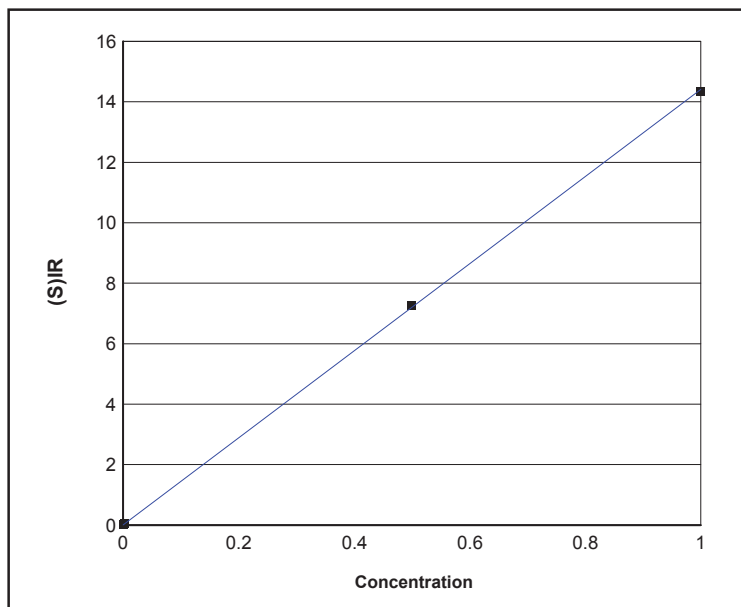
Element Name:		As
Element Wavelength:		As 189.042 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		1.00000
A0 (Offset):		-0.00030059
A1 (Gain):		0.15678
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000000295	-0.0000000295	0.00000	-0.00030059	0.00038087	1
IC-4954076	0.015000	0.015017	0.000017012	0.11341	0.0020468	0.000071660	1
IC-4927698	0.50000	0.50085	0.00085259	0.17052	0.077347	0.000098059	1
IC-4927697	1.0000	0.99913	-0.00086974	-0.086974	0.15459	0.000011306	1



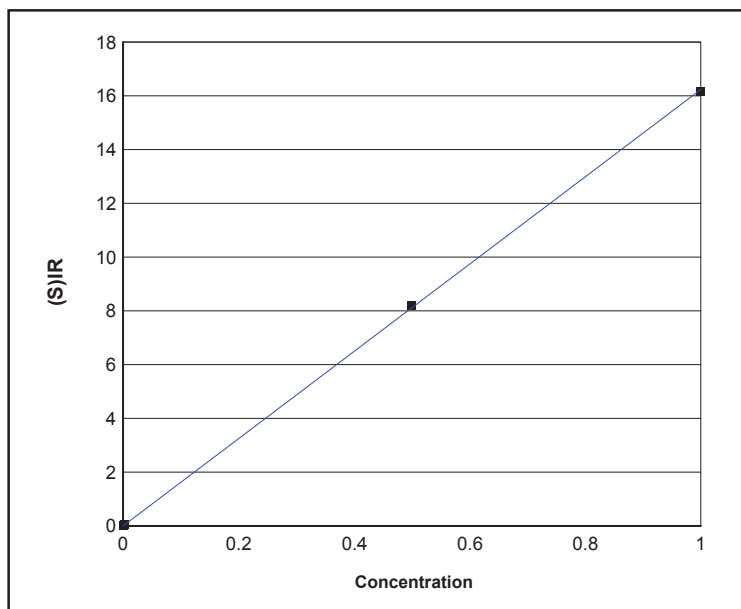
Element Name:		B
Element Wavelength:		B 208.959 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99998
A0 (Offset):		0.0026154
A1 (Gain):		0.97461
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000011192	0.0000011192	0.00000	0.0026165	0.000033949	1
IC-4954076	0.020000	0.018826	-0.0011744	-5.8722	0.021242	0.00019477	1
IC-4927698	0.50000	0.50160	0.0016036	0.32072	0.50546	0.00021726	1
IC-4927697	1.0000	0.99955	-0.00044554	-0.044554	1.0047	0.0027969	1



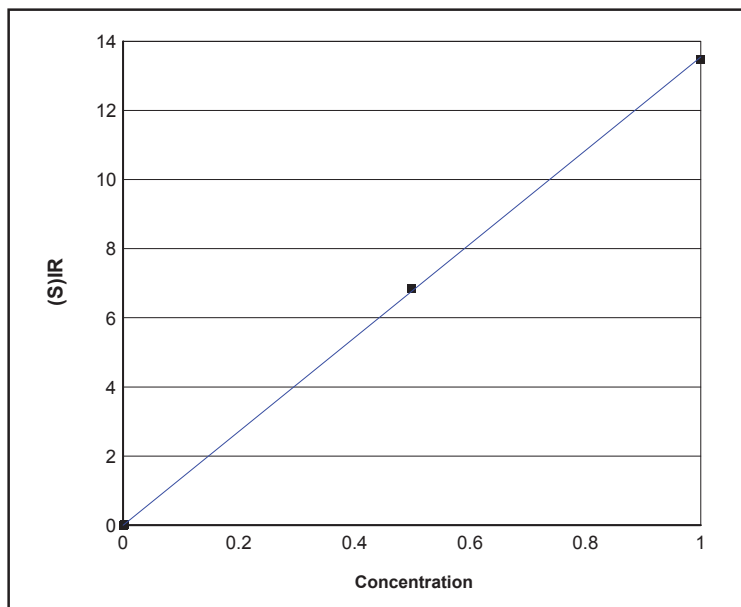
Element Name:	Ba		
Element Wavelength:	Ba 455.403 nm		
Concentration Units:	ppm		
Date of Calibration:	10/26/2018 8:51:33AM		
Date of Fit:	10/26/2018 9:44:35AM		
Type of Fit:	Linear		
Correlation:	0.99998		
A0 (Offset):	0.0083799		
A1 (Gain):	14.402		
A2 (Curvature):	0.00000		
n (Exponent):	1.0000		
Reslope		QC Normalize	
Slope:	1.0000	Slope factor:	1.0000
Y Int:	0.00000	Offset:	0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000001173	-0.0000001173	0.00000	0.0083782	0.00036238	1
IC-4954076	0.0020000	0.0021096	0.00010957	5.4786	0.038762	0.0022043	1
IC-4927698	0.50000	0.50397	0.0039671	0.79343	7.2665	0.015606	1
IC-4927697	1.0000	0.99592	-0.0040767	-0.40767	14.352	0.057644	1



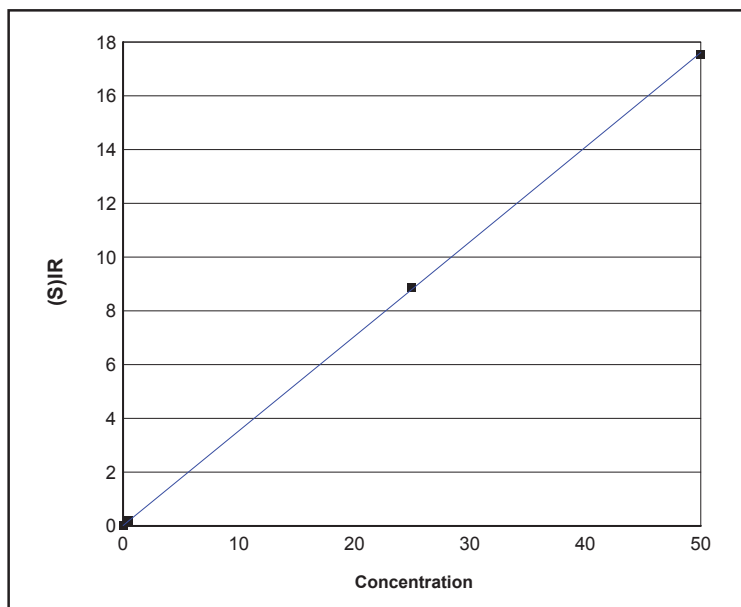
Element Name:	Ba		
Element Wavelength:	Ba 455.403 nm		
Concentration Units:	ppm		
Date of Calibration:	10/26/2018 8:51:33AM		
Date of Fit:	10/26/2018 9:44:35AM		
Type of Fit:	Linear		
Correlation:	0.99997		
A0 (Offset):	0.0018318		
A1 (Gain):	16.230		
A2 (Curvature):	0.00000		
n (Exponent):	1.0000		
Reslope		QC Normalize	
Slope:	1.0000	Slope factor:	1.0000
Y Int:	0.00000	Offset:	0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000000318	-0.0000000318	0.00000	0.0018313	0.000013536	1
IC-4954076	0.0020000	0.0020215	0.000021504	1.0752	0.034642	0.00036572	1
IC-4927698	0.50000	0.50516	0.0051611	1.0322	8.2008	0.050104	1
IC-4927697	1.0000	0.99482	-0.0051826	-0.51826	16.148	0.074230	1



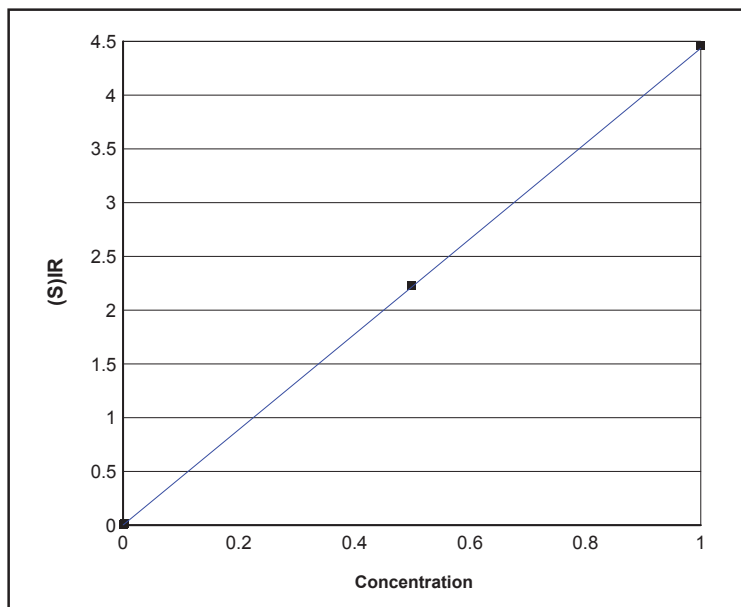
Element Name:		Be
Element Wavelength:		Be 313.042 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99996
A0 (Offset):		0.00023136
A1 (Gain):		13.547
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000000033	-0.0000000033	0.00000	0.00023131	0.00032796	1
IC-4954076	0.0020000	0.0019914	-0.0000086461	-0.43230	0.027184	0.00050342	1
IC-4927698	0.50000	0.50595	0.0059542	1.1908	6.8519	0.023882	1
IC-4927697	1.0000	0.99405	-0.0059455	-0.59455	13.462	0.0031561	1



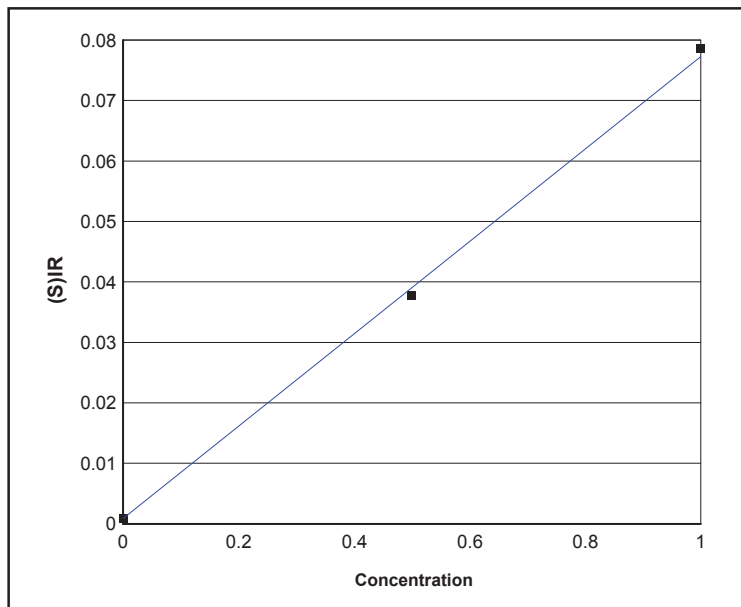
Element Name:		Ca
Element Wavelength:		Ca 317.933 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99999
A0 (Offset):		0.010001
A1 (Gain):		0.35188
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000045551	-0.0000045551	0.00000	0.0099997	0.00057278	1
IC-4954076	0.50000	0.50282	0.0028221	0.56442	0.18693	0.0010239	1
IC-4927698	25.000	25.176	0.17612	0.70449	8.8689	0.026189	1
IC-4927697	50.000	49.821	-0.17894	-0.35789	17.541	0.0088222	1



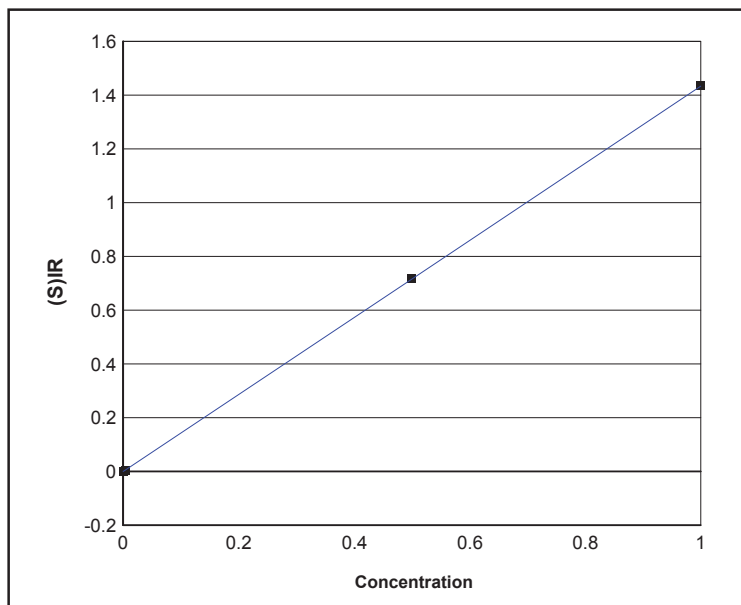
Element Name:		Cd
Element Wavelength:		Cd 228.802 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		1.00000
A0 (Offset):		0.0023389
A1 (Gain):		4.4324
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000000730	0.0000000730	0.00000	0.0023392	0.00029173	1
IC-4954076	0.0020000	0.0019268	-0.000073164	-3.6582	0.011255	0.00041681	1
IC-4927698	0.50000	0.50003	0.000030783	0.0061565	2.2307	0.0016889	1
IC-4927697	1.0000	1.0000	0.000045069	0.0045069	4.4590	0.0041656	1



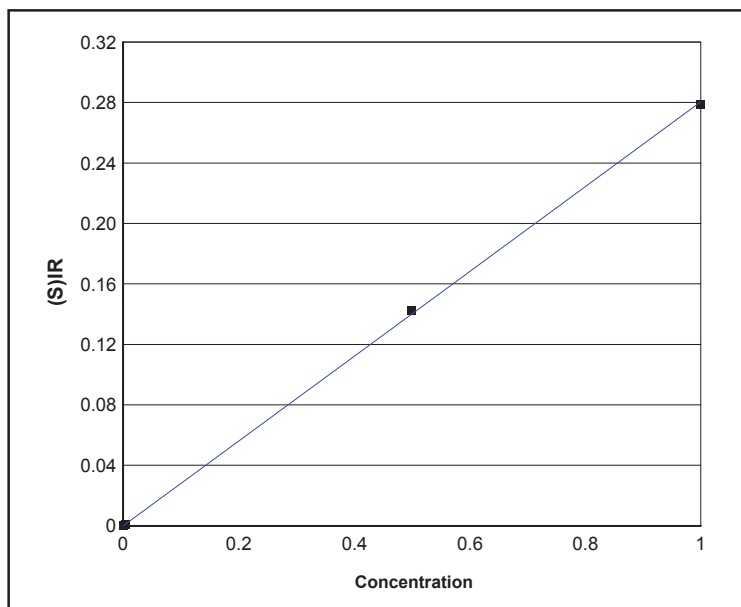
Element Name:		Ce
Element Wavelength:		Ce 404.076 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.9997
A0 (Offset):		0.0008759
A1 (Gain):		0.07640
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.0000	0.000008255	0.000008255	0.0000	0.0008765	0.0006325	1
IC-4927698	0.5000	0.4835	-0.01651	-3.302	0.03781	0.0005251	1
IC-4927697	1.000	1.017	0.01651	1.651	0.07853	0.0003304	1



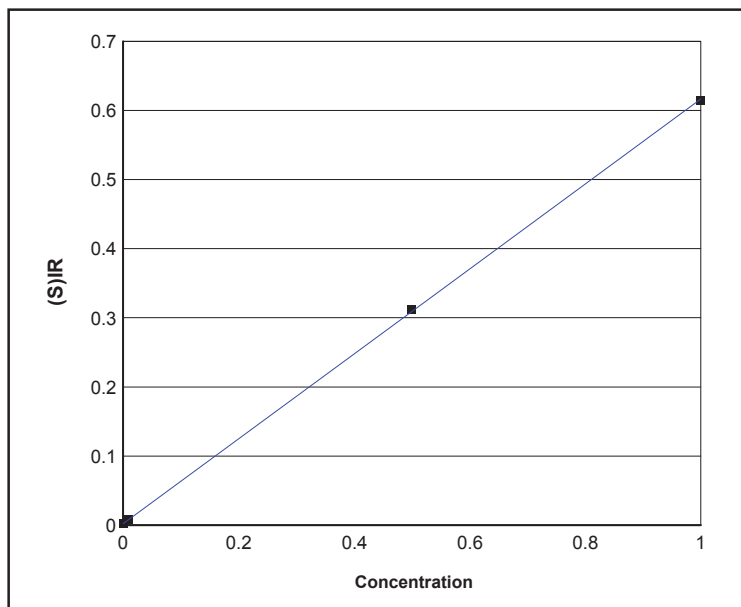
Element Name:	Co
Element Wavelength:	Co 228.616 nm
Concentration Units:	ppm
Date of Calibration:	10/26/2018 8:51:33AM
Date of Fit:	10/26/2018 9:44:35AM
Type of Fit:	Linear
Correlation:	0.99999
A0 (Offset):	-0.00016390
A1 (Gain):	1.4336
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000003798	0.0000003798	0.00000	-0.00016335	0.00016750	1
IC-4954076	0.0040000	0.0036147	-0.00038528	-9.6320	0.0050320	0.00036063	1
IC-4927698	0.50000	0.50099	0.00099351	0.19870	0.71944	0.00088279	1
IC-4927697	1.0000	0.99939	-0.00060804	-0.060804	1.4353	0.000049354	1



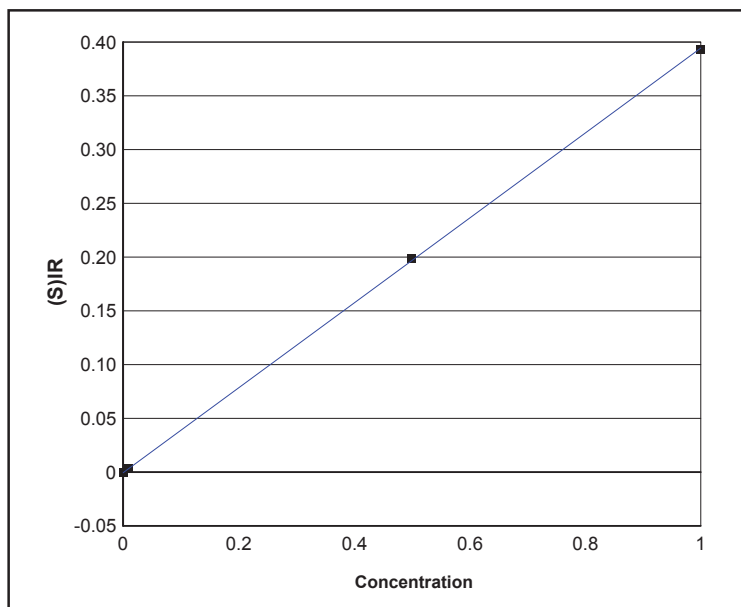
Element Name:	Cr
Element Wavelength:	Cr 267.716 nm
Concentration Units:	ppm
Date of Calibration:	10/26/2018 8:51:33AM
Date of Fit:	10/26/2018 9:44:35AM
Type of Fit:	Linear
Correlation:	0.99994
A0 (Offset):	0.000020639
A1 (Gain):	0.28039
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000001493	0.0000001493	0.00000	0.000020681	0.000083927	1
IC-4954076	0.0040000	0.0038206	-0.00017936	-4.4840	0.0010920	0.000028164	1
IC-4927698	0.50000	0.50734	0.0073447	1.4689	0.14229	0.000082297	1
IC-4927697	1.0000	0.99283	-0.0071654	-0.71654	0.27843	0.00055913	1



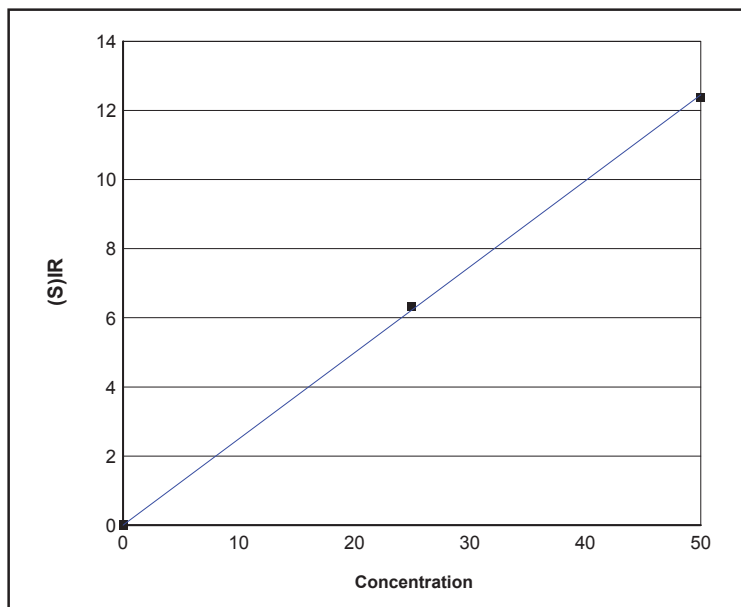
Element Name:		Cu
Element Wavelength:		Cu 324.754 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99996
A0 (Offset):		0.0019548
A1 (Gain):		0.61457
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000008032	0.0000008032	0.00000	0.0019553	0.00010950	1
IC-4954076	0.010000	0.0091414	-0.00085856	-8.5856	0.0075728	0.00017146	1
IC-4927698	0.50000	0.50468	0.0046780	0.93560	0.31211	0.00093458	1
IC-4927697	1.0000	0.99618	-0.0038194	-0.38194	0.61418	0.00054741	1



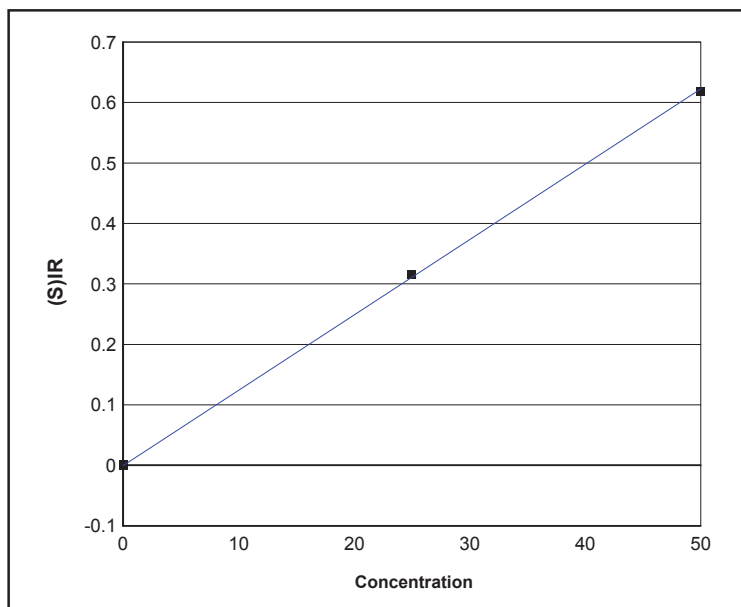
Element Name:		Cu
Element Wavelength:		Cu 327.396 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99997
A0 (Offset):		-0.00066623
A1 (Gain):		0.39501
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000006982	0.0000006982	0.00000	-0.00066595	0.00021295	1
IC-4954076	0.010000	0.0092588	-0.00074120	-7.4120	0.0029933	0.000017702	1
IC-4927698	0.50000	0.50355	0.0035548	0.71095	0.19835	0.00071895	1
IC-4927697	1.0000	0.99719	-0.0028136	-0.28136	0.39345	0.00021325	1



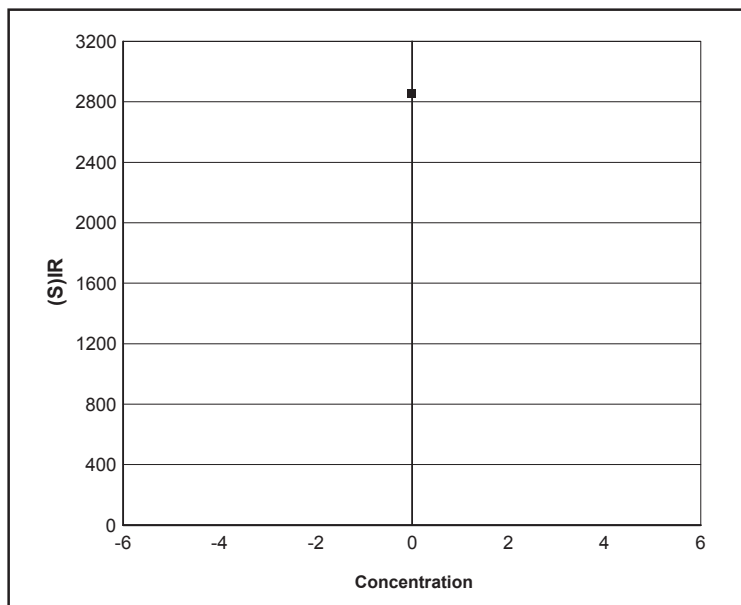
Element Name:		Fe
Element Wavelength:		Fe 259.940 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99995
A0 (Offset):		0.00087886
A1 (Gain):		0.24908
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000017216	0.0000017216	0.00000	0.00087929	0.00032571	1
IC-4954076	0.050000	0.047919	-0.0020811	-4.1622	0.012815	0.00017557	1
IC-4927698	25.000	25.357	0.35742	1.4297	6.3170	0.016264	1
IC-4927697	50.000	49.645	-0.35534	-0.71068	12.366	0.012327	1



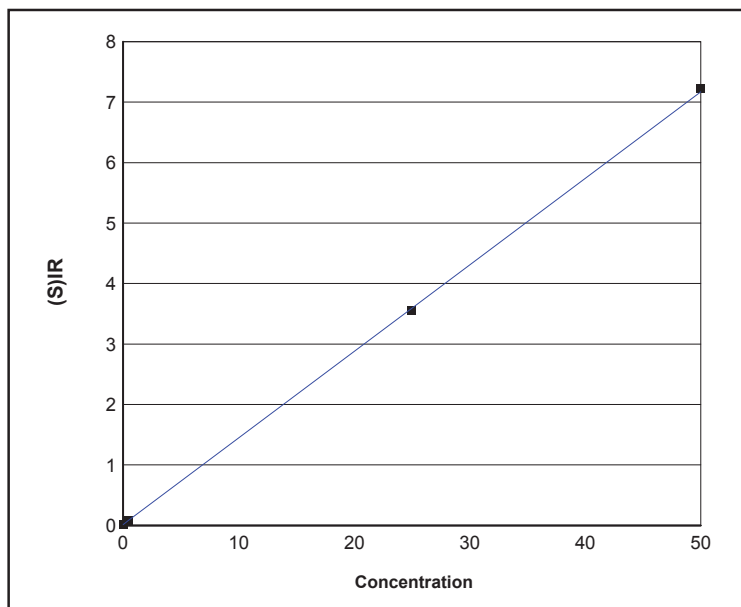
Element Name:		Fe
Element Wavelength:		Fe 271.441 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99978
A0 (Offset):		-0.00035774
A1 (Gain):		0.012457
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	-0.000037712	-0.000037712	0.00000	-0.00035821	0.00075537	1
IC-4954076	0.050000	0.087459	0.037459	74.919	0.00073177	0.00040848	1
IC-4927698	25.000	25.290	0.29029	1.1612	0.31469	0.0011419	1
IC-4927697	50.000	49.672	-0.32775	-0.65550	0.61842	0.0020338	1



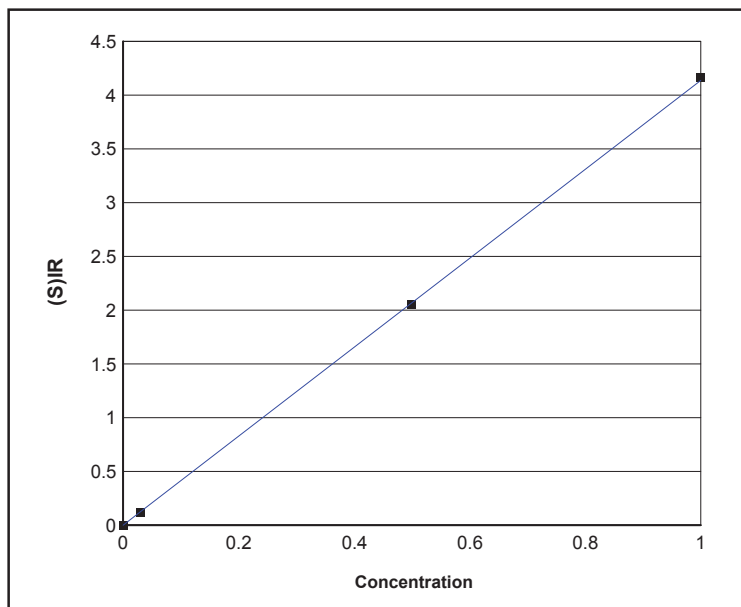
Element Name:		In
Element Wavelength:		In 230.606 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:40:19AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.0000			0.0000	2,857	1.123	1



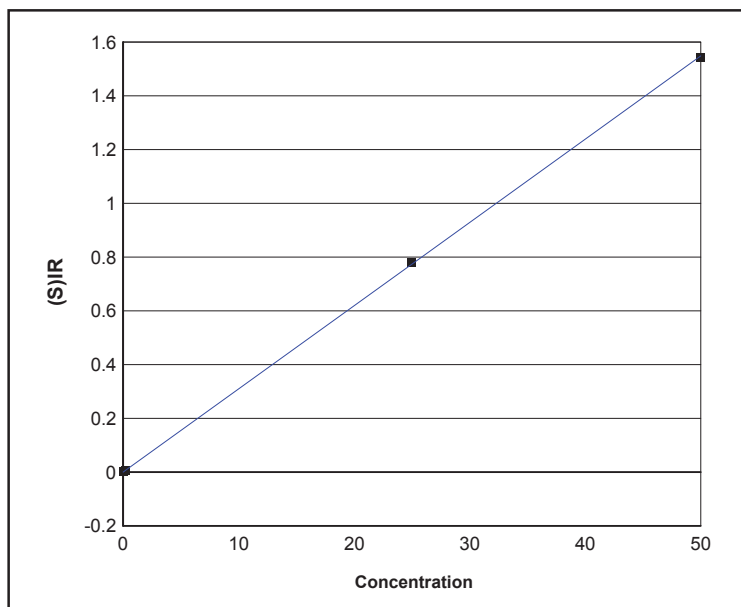
Element Name:		K
Element Wavelength:		K 766.490 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99992
A0 (Offset):		0.016681
A1 (Gain):		0.14309
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.000064449	0.000064449	0.00000	0.016690	0.0027950	1
IC-4954076	0.50000	0.43757	-0.062433	-12.487	0.079292	0.00050695	1
IC-4927698	25.000	24.736	-0.26403	-1.0561	3.5561	0.0032495	1
IC-4927697	50.000	50.326	0.32646	0.65293	7.2178	0.025504	1



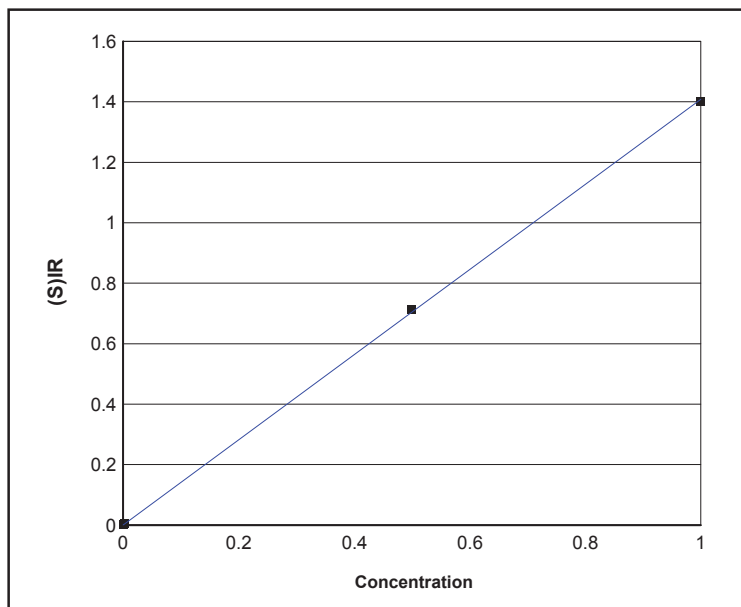
Element Name:		Li
Element Wavelength:		Li 670.784 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99994
A0 (Offset):		0.0010043
A1 (Gain):		4.1353
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000019035	0.0000019035	0.00000	0.0010122	0.00069967	1
IC-4954076	0.030000	0.028170	-0.0018300	-6.0999	0.11750	0.00074219	1
IC-4927698	0.50000	0.49572	-0.0042809	-0.85618	2.0509	0.0034702	1
IC-4927697	1.0000	1.0061	0.0061109	0.61109	4.1616	0.018676	1



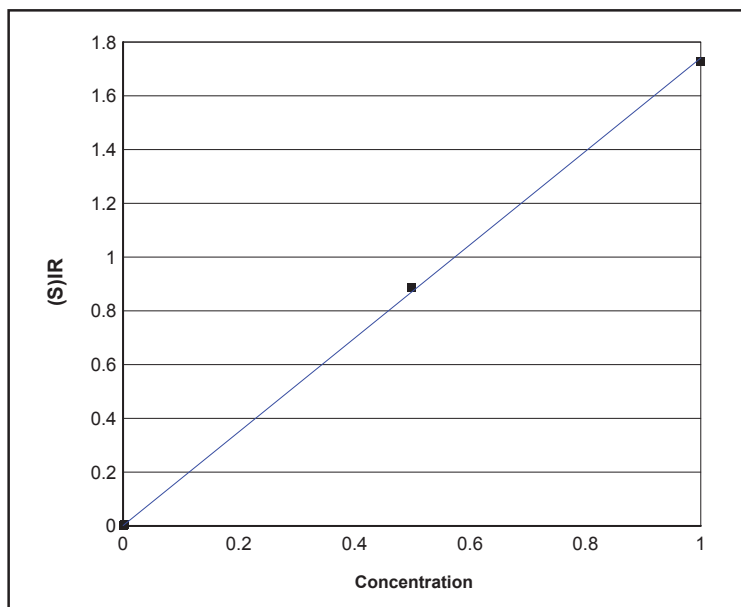
Element Name:		Mg
Element Wavelength:		Mg 279.079 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99998
A0 (Offset):		-0.000026317
A1 (Gain):		0.030980
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000011147	-0.0000011147	0.00000	-0.000026352	0.000026923	1
IC-4954076	0.20000	0.20028	0.00028328	0.14164	0.0061780	0.000041667	1
IC-4927698	25.000	25.208	0.20813	0.83252	0.78084	0.0014749	1
IC-4927697	50.000	49.792	-0.20841	-0.41683	1.5424	0.0031769	1



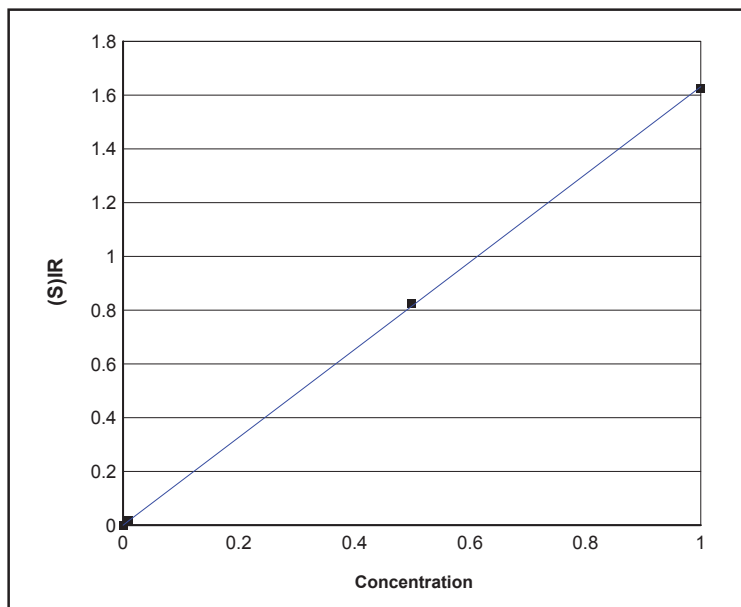
Element Name:		Mn
Element Wavelength:		Mn 257.610 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99996
A0 (Offset):		0.0010819
A1 (Gain):		1.4070
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000001629	0.0000001629	0.00000	0.0010821	0.00021106	1
IC-4954076	0.0030000	0.0028188	-0.00018117	-6.0390	0.0050481	0.00060946	1
IC-4927698	0.50000	0.50589	0.0058935	1.1787	0.71289	0.0030903	1
IC-4927697	1.0000	0.99429	-0.0057124	-0.57124	1.4001	0.00093103	1



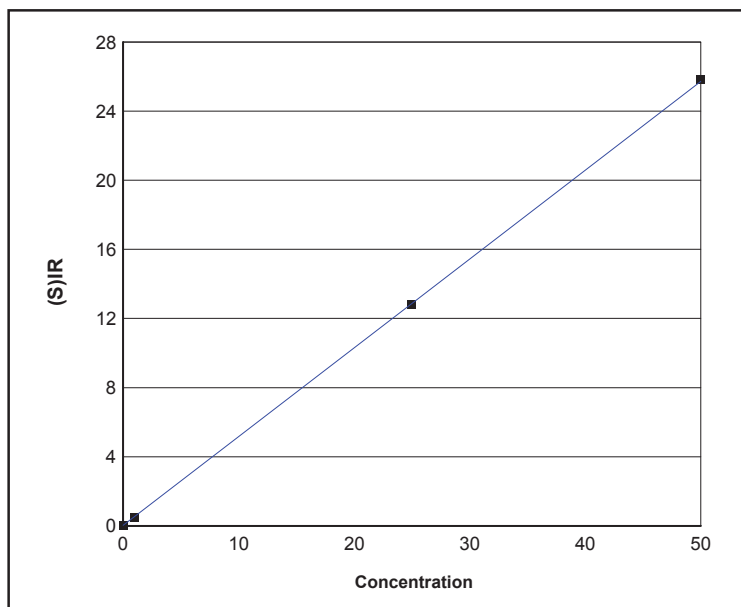
Element Name:		Mn
Element Wavelength:		Mn 257.610 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99993
A0 (Offset):		0.0011992
A1 (Gain):		1.7400
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000002035	0.0000002035	0.00000	0.0011996	0.000045936	1
IC-4954076	0.0030000	0.0027716	-0.00022843	-7.6145	0.0060251	0.000015021	1
IC-4927698	0.50000	0.50807	0.0080704	1.6141	0.88574	0.0014323	1
IC-4927697	1.0000	0.99216	-0.0078419	-0.78419	1.7286	0.0022615	1



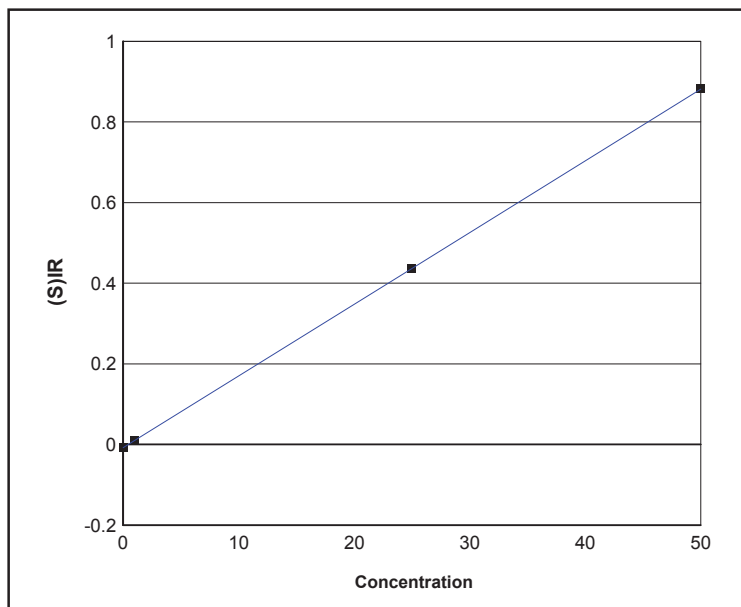
Element Name:	Mo
Element Wavelength:	Mo 202.030 nm
Concentration Units:	ppm
Date of Calibration:	10/26/2018 8:51:33AM
Date of Fit:	10/26/2018 9:44:35AM
Type of Fit:	Linear
Correlation:	0.99997
A0 (Offset):	0.00038861
A1 (Gain):	1.6311
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000003468	0.0000003468	0.00000	0.00038918	0.00024013	1
IC-4954076	0.010000	0.0095991	-0.00040090	-4.0090	0.016045	0.000015117	1
IC-4927698	0.50000	0.50501	0.0050098	1.0020	0.82409	0.0011767	1
IC-4927697	1.0000	0.99539	-0.0046089	-0.46089	1.6239	0.00077051	1



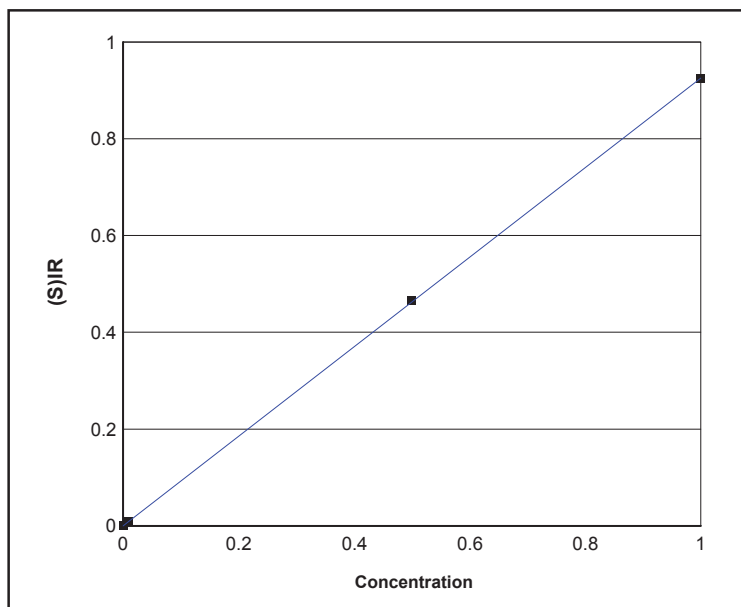
Element Name:	Na
Element Wavelength:	Na 589.592 nm
Concentration Units:	ppm
Date of Calibration:	10/26/2018 8:51:33AM
Date of Fit:	10/26/2018 9:44:35AM
Type of Fit:	Linear
Correlation:	0.99994
A0 (Offset):	0.027683
A1 (Gain):	0.51387
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.000089225	0.000089225	0.00000	0.027729	0.0028111	1
IC-4954076	1.0000	0.91068	-0.089316	-8.9316	0.49566	0.0019460	1
IC-4927698	25.000	24.915	-0.084769	-0.33908	12.831	0.021455	1
IC-4927697	50.000	50.174	0.17408	0.34817	25.811	0.084664	1



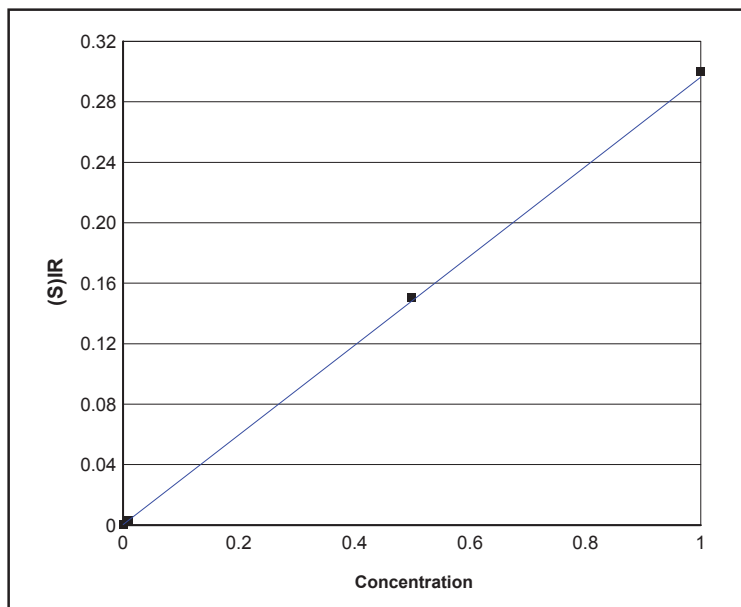
Element Name:		Na
Element Wavelength:		Na 818.326 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99999
A0 (Offset):		-0.0082020
A1 (Gain):		0.017794
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.000040069	0.000040069	0.00000	-0.0082013	0.0034096	1
IC-4954076	1.0000	0.95928	-0.040719	-4.0719	0.0088671	0.00078522	1
IC-4927698	25.000	24.992	-0.0082318	-0.032927	0.43649	0.0013590	1
IC-4927697	50.000	50.049	0.048951	0.097902	0.88235	0.0022273	1



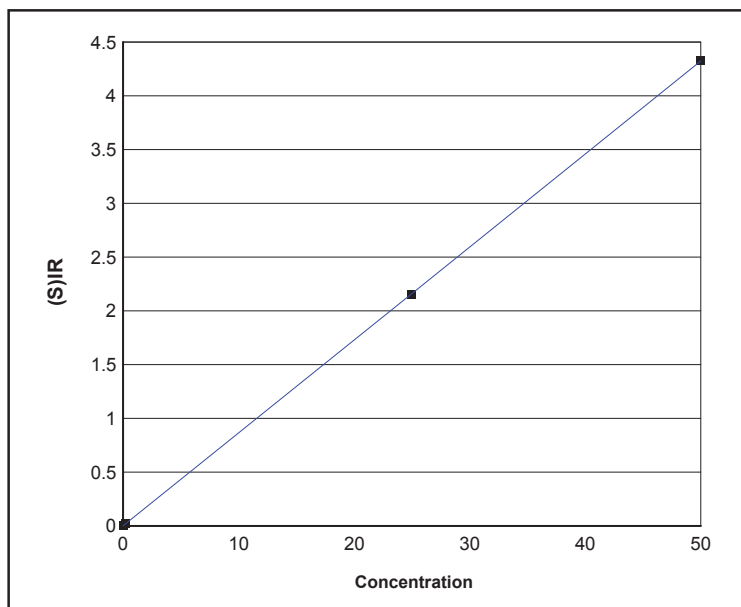
Element Name:		Ni
Element Wavelength:		Ni 231.604 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99999
A0 (Offset):		0.000035996
A1 (Gain):		0.92539
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000002533	0.0000002533	0.00000	0.000036231	0.00011745	1
IC-4954076	0.010000	0.0097138	-0.00028619	-2.8619	0.0090266	0.000042773	1
IC-4927698	0.50000	0.50300	0.0030025	0.60050	0.46627	0.00071220	1
IC-4927697	1.0000	0.99728	-0.0027168	-0.27168	0.92444	0.0013964	1



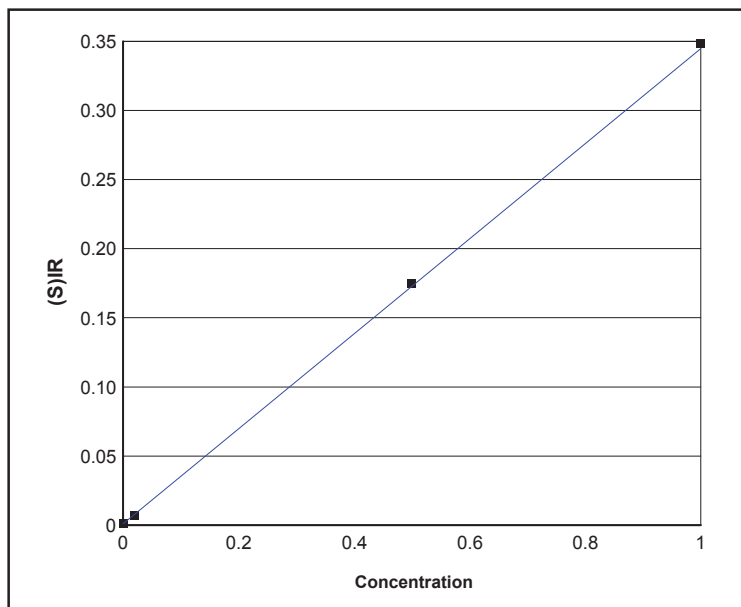
Element Name:		Pb
Element Wavelength:		Pb 220.353 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99999
A0 (Offset):		0.00040305
A1 (Gain):		0.29586
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000004905	0.0000004905	0.00000	0.00040319	0.00011209	1
IC-4954076	0.010000	0.0094936	-0.00050635	-5.0635	0.0032488	0.00013465	1
IC-4927698	0.50000	0.50108	0.0010814	0.21628	0.15052	0.000072907	1
IC-4927697	1.0000	0.99942	-0.00057511	-0.057511	0.29983	0.00010425	1



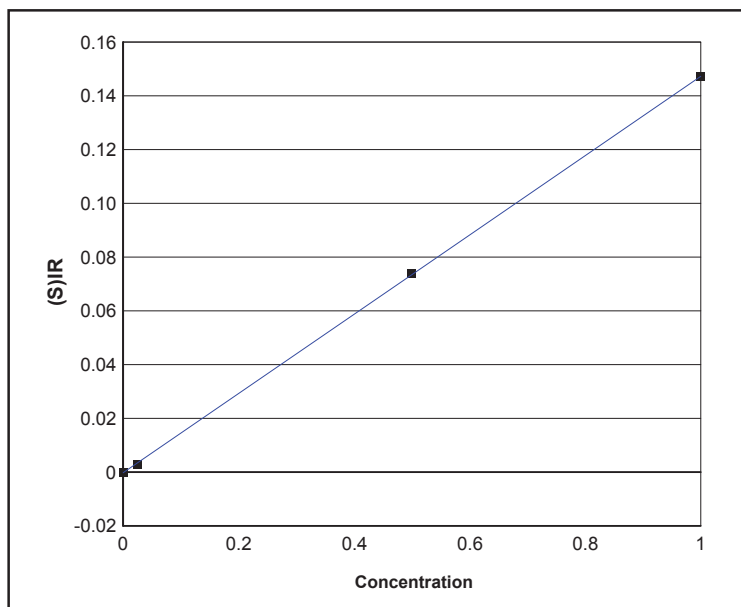
Element Name:		S
Element Wavelength:		S 182.034 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		1.0000
A0 (Offset):		0.0007340
A1 (Gain):		0.08644
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.0000	0.000008677	0.000008677	0.0000	0.0007348	0.0001128	1
IC-4954076	0.2000	0.1916	-0.008420	-4.210	0.01729	0.0003743	1
IC-4927698	25.00	24.93	-0.07248	-0.2899	2.155	0.0003264	1
IC-4927697	50.00	50.08	0.08090	0.1618	4.330	0.01522	1



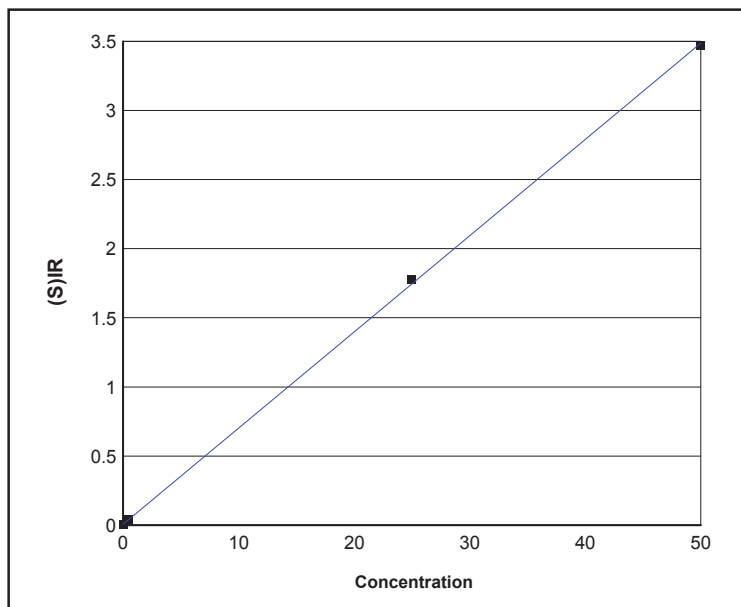
Element Name:		Sb
Element Wavelength:		Sb 206.833 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99984
A0 (Offset):		0.00096357
A1 (Gain):		0.34371
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000030102	0.0000030102	0.00000	0.00096460	0.00040176	1
IC-4954076	0.020000	0.016914	-0.0030862	-15.431	0.0067902	0.000081008	1
IC-4927698	0.50000	0.50074	0.00073612	0.14722	0.17471	0.00054857	1
IC-4927697	1.0000	1.0023	0.0023267	0.23267	0.34876	0.00050264	1



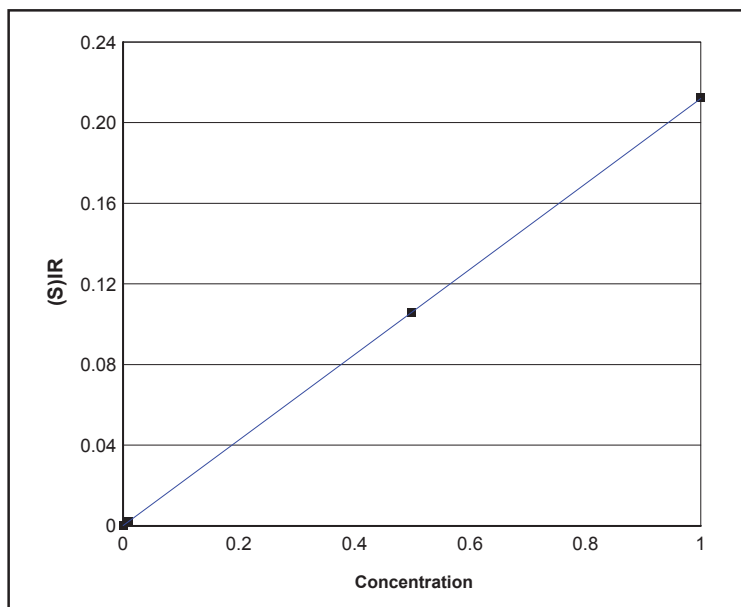
Element Name:		Se
Element Wavelength:		Se 196.090 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99978
A0 (Offset):		-0.00021108
A1 (Gain):		0.14752
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000039006	0.0000039006	0.00000	-0.00021050	0.00020248	1
IC-4954076	0.025000	0.020926	-0.0040741	-16.297	0.0028744	0.000013307	1
IC-4927698	0.50000	0.50286	0.0028598	0.57196	0.073791	0.000027534	1
IC-4927697	1.0000	1.0012	0.0012225	0.12225	0.14713	0.00090608	1



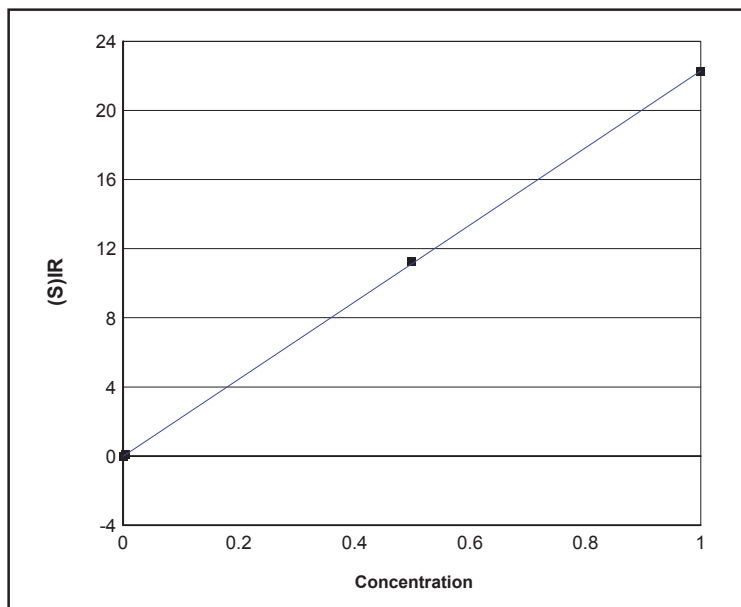
Element Name:		Si
Element Wavelength:		Si 288.158 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99991
A0 (Offset):		0.0062936
A1 (Gain):		0.069603
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.000051439	0.000051439	0.00000	0.0062972	0.00053842	1
IC-4954076	0.50000	0.44445	-0.055548	-11.110	0.037245	0.00038419	1
IC-4927698	25.000	25.355	0.35542	1.4217	1.7727	0.0081831	1
IC-4927697	50.000	49.700	-0.29990	-0.59979	3.4688	0.019449	1



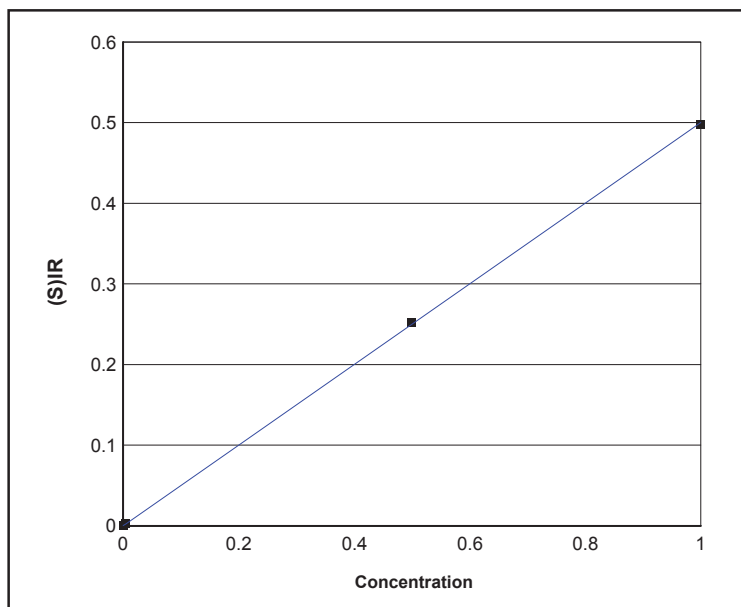
Element Name:		Sn
Element Wavelength:		Sn 189.989 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		1.00000
A0 (Offset):		0.000096670
A1 (Gain):		0.21187
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000002821	0.0000002821	0.00000	0.000096730	0.000042961	1
IC-4954076	0.010000	0.0097283	-0.00027171	-2.7171	0.0021578	0.000061335	1
IC-4927698	0.50000	0.49869	-0.0013134	-0.26268	0.10575	0.00055376	1
IC-4927697	1.0000	1.0016	0.0015851	0.15851	0.21231	0.000017493	1



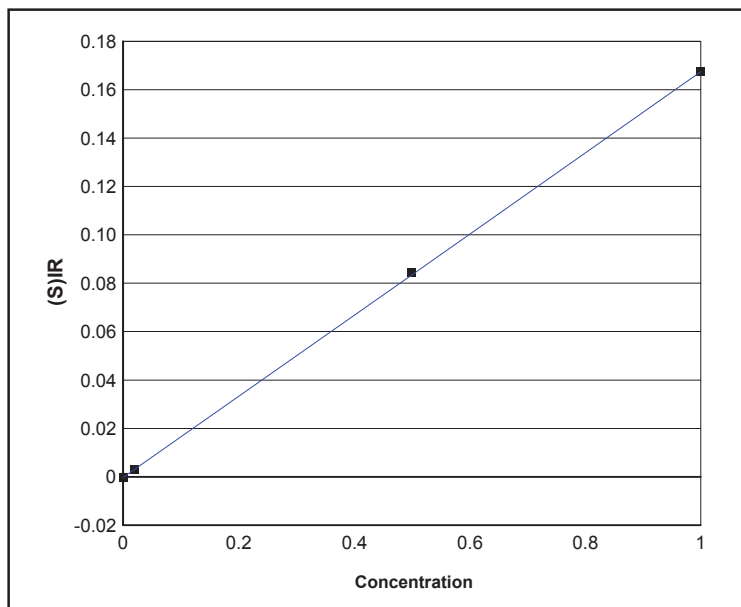
Element Name:		Sr
Element Wavelength:		Sr 407.771 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99999
A0 (Offset):		-0.0046999
A1 (Gain):		22.297
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000001889	0.0000001889	0.00000	-0.0046957	0.0010736	1
IC-4954076	0.0050000	0.0047936	-0.00020644	-4.1288	0.10259	0.0020777	1
IC-4927698	0.50000	0.50331	0.0033082	0.66163	11.238	0.028341	1
IC-4927697	1.0000	0.99690	-0.0031013	-0.31013	22.264	0.074115	1



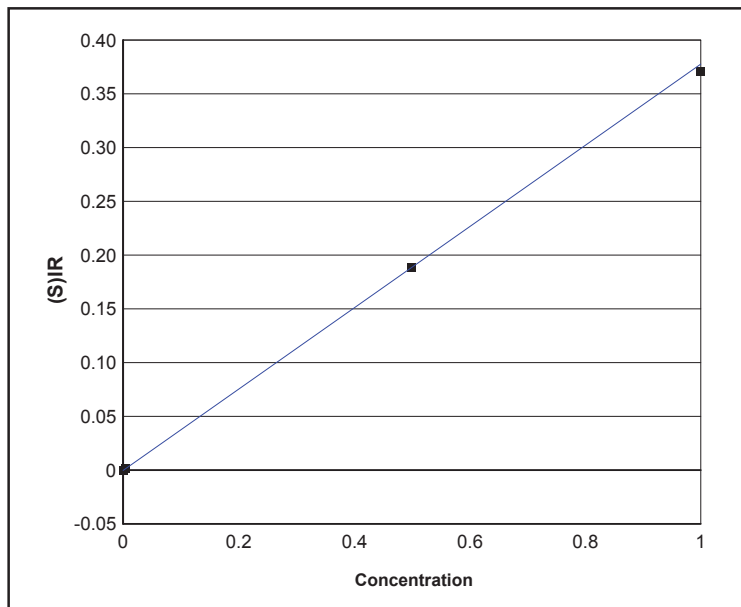
Element Name:		Ti
Element Wavelength:		Ti 334.904 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99996
A0 (Offset):		0.00021339
A1 (Gain):		0.50001
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000005323	0.0000005323	0.00000	0.00021366	0.00017847	1
IC-4954076	0.0050000	0.0044415	-0.00055850	-11.170	0.0024342	0.00011571	1
IC-4927698	0.50000	0.50469	0.0046864	0.93728	0.25256	0.00017683	1
IC-4927697	1.0000	0.99587	-0.0041279	-0.41279	0.49816	0.00010408	1



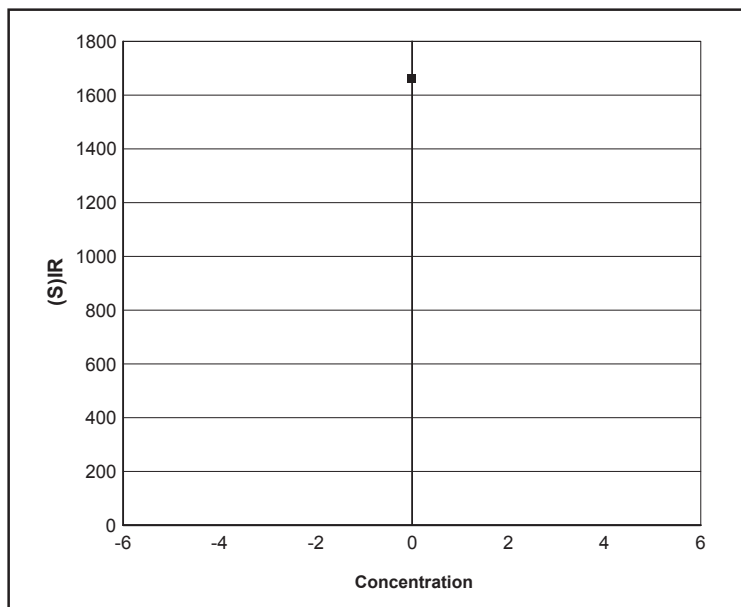
Element Name:		TI
Element Wavelength:		TI 190.856 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99996
A0 (Offset):		-0.00025203
A1 (Gain):		0.16767
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000011507	0.0000011507	0.00000	-0.00025184	0.000016734	1
IC-4954076	0.020000	0.018746	-0.0012540	-6.2702	0.0028938	0.00018170	1
IC-4927698	0.50000	0.50392	0.0039156	0.78312	0.084586	0.00010494	1
IC-4927697	1.0000	0.99733	-0.0026657	-0.26657	0.16766	0.000015745	1



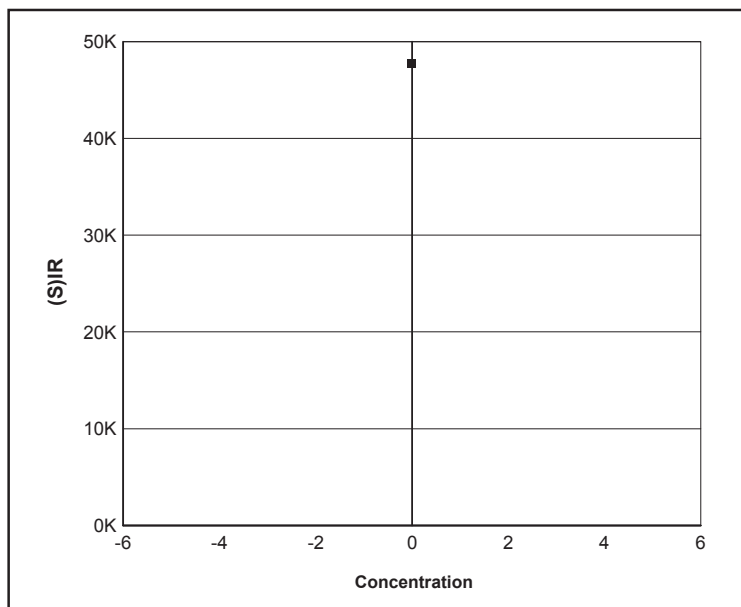
Element Name:		V
Element Wavelength:		V 292.402 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99997
A0 (Offset):		-0.00019671
A1 (Gain):		0.37796
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000002097	0.0000002097	0.00000	-0.00019663	0.000013540	1
IC-4954076	0.0050000	0.0047616	-0.00023843	-4.7687	0.0015535	0.000097988	1
IC-4927698	0.50000	0.50551	0.0055071	1.1014	0.18856	0.00076689	1
IC-4927697	1.0000	0.99473	-0.0052721	-0.52721	0.37116	0.00030145	1



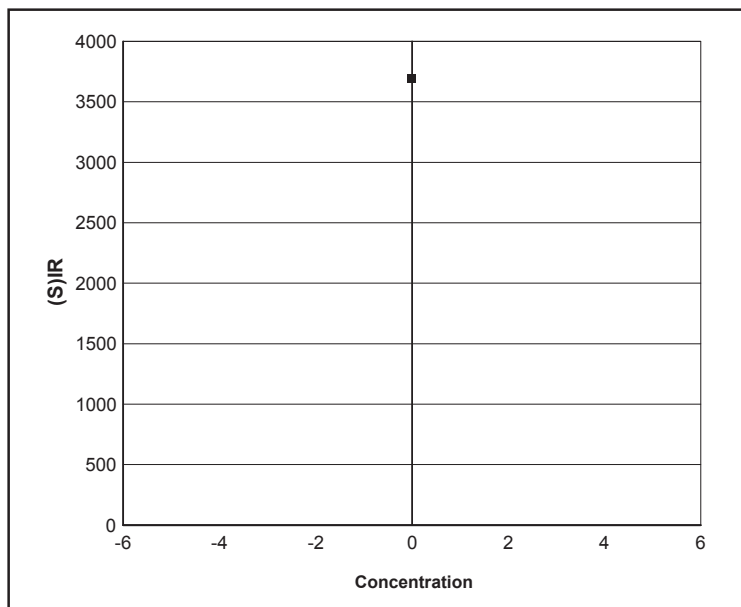
Element Name:		Y
Element Wavelength:		Y 224.306 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:40:19AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.0000			0.0000	1,662	0.5377	1



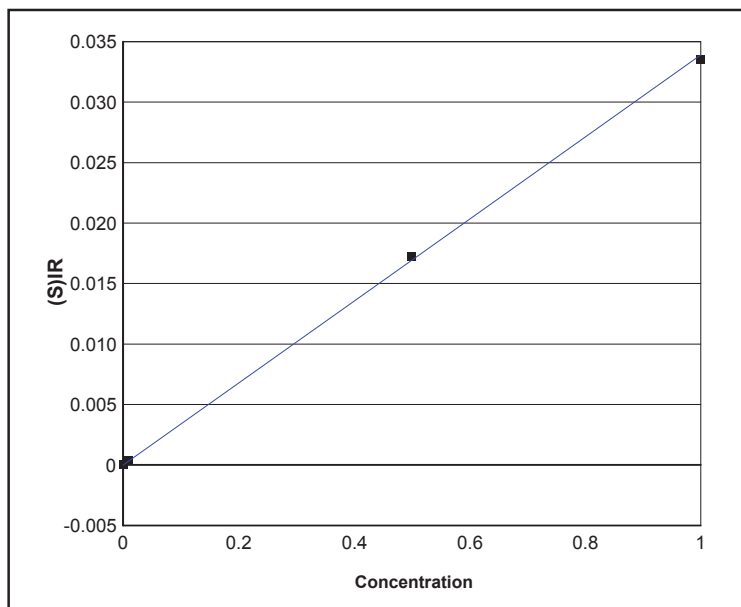
Element Name:		Y
Element Wavelength:		Y 360.073 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:40:19AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.0000			0.0000	47,750	5.209	1



Element Name:		Y
Element Wavelength:		Y 377.433 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:40:19AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.0000			0.0000	3,697	2.215	1



Element Name:		Zn
Element Wavelength:		Zn 206.200 nm
Concentration Units:		ppm
Date of Calibration:		10/26/2018 8:51:33AM
Date of Fit:		10/26/2018 9:44:35AM
Type of Fit:		Linear
Correlation:		0.99988
A0 (Offset):		-0.0000084993
A1 (Gain):		0.033916
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ICIS-4957862	0.00000	0.0000009931	-0.0000009931	0.00000	-0.0000085330	0.000012196	1
IC-4954076	0.010000	0.010911	0.00091070	9.1070	0.00036131	0.0000052260	1
IC-4927698	0.50000	0.50916	0.0091551	1.8310	0.017229	0.000056935	1
IC-4927697	1.0000	0.98993	-0.010067	-1.0067	0.033505	0.000038939	1

Sample Name: ICIS-4957862 Acquired: 10/26/2018 8:36:31 Type: Cal
Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00015	.00063	-.00030	.00262	.00838	.00183	.00023
Stddev	.00005	.00020	.00038	.00003	.00036	.00001	.00033
%RSD	32.968	31.175	126.71	1.2975	4.3252	.73916	141.78

#1	-.00012	.00049	-.00057	.00264	.00812	.00182	.00046
#2	-.00019	.00076	-.00003	.00259	.00863	.00184	-.00000

Elem	Ca3179	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01000	.00234	.0009	-.00016	.00002	-.00067	.00088
Stddev	.00057	.00029	.0006	.00017	.00008	.00021	.00033
%RSD	5.7280	12.471	72.15	102.54	405.83	31.977	37.043

#1	.00959	.00213	.0013	-.00004	.00008	-.00082	.00065
#2	.01040	.00255	.0004	-.00028	-.00004	-.00052	.00111

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00036	.01669	.00101	-.00003	.00108	.00120	.00039
Stddev	.00076	.00279	.00070	.00003	.00021	.00005	.00024
%RSD	210.87	16.746	69.124	102.16	19.504	3.8294	61.702

#1	-.00089	.01867	.00052	-.00005	.00093	.00117	.00056
#2	.00018	.01471	.00151	-.00001	.00123	.00123	.00022

Elem	Na5895	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02773	-.00820	.00004	.00040	.0007	.00096	-.00021
Stddev	.00281	.00341	.00012	.00011	.0001	.00040	.00020
%RSD	10.138	41.573	324.17	27.800	15.35	41.650	96.187

#1	.02574	-.01061	-.00005	.00032	.0008	.00068	-.00007
#2	.02972	-.00579	.00012	.00048	.0007	.00125	-.00035

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00630	.00010	-.00470	.00021	-.00025	-.00020	-.00001
Stddev	.00054	.00004	.00107	.00018	.00002	.00001	.00001
%RSD	8.5501	44.414	22.864	83.532	6.6446	6.8861	142.93

#1	.00592	.00013	-.00545	.00009	-.00024	-.00021	-.00002
#2	.00668	.00007	-.00394	.00034	-.00026	-.00019	.00000

Sample Name: ICIS-4957862 Acquired: 10/26/2018 8:36:31 Type: Cal
 Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2857.3	1662.1	47746.	3696.6
Stddev	1.1	.5	5.	2.2
%RSD	.03931	.03235	.01091	.05991
#1	2856.5	1662.4	47750.	3698.2
#2	2858.1	1661.7	47742.	3695.0

Sample Name: IC-4954076 Acquired: 10/26/2018 8:40:22 Type: Cal
Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00243	.00954	.00205	.02124	.03876	.03464	.02718
Stddev	.00001	.00054	.00007	.00019	.00220	.00037	.00050
%RSD	.49802	5.6399	3.5011	.91688	5.6868	1.0557	1.8519

#1	.00242	.00992	.00200	.02110	.03720	.03490	.02754
#2	.00244	.00915	.00210	.02138	.04032	.03438	.02683

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	Fe2714
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.18693	.01126	.00503	.00109	.00299	.01281	.00073
Stddev	.00102	.00042	.00036	.00003	.00002	.00018	.00041
%RSD	.54773	3.7033	7.1666	2.5791	.59140	1.3701	55.822

#1	.18766	.01155	.00529	.00111	.00298	.01269	.00102
#2	.18621	.01096	.00478	.00107	.00301	.01294	.00044

Elem	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.07929	.11750	.00618	.00505	.00603	.01605	.49566
Stddev	.00051	.00074	.00004	.00061	.00002	.00002	.00195
%RSD	.63935	.63168	.67444	12.073	.24931	.09421	.39261

#1	.07965	.11802	.00615	.00548	.00601	.01603	.49429
#2	.07893	.11697	.00621	.00462	.00604	.01606	.49704

Elem	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00887	.00903	.00325	.0173	.00679	.00287	.03725
Stddev	.00079	.00004	.00013	.0004	.00008	.00001	.00038
%RSD	8.8555	.47385	4.1445	2.164	1.1930	.46297	1.0315

#1	.00942	.00906	.00315	.0176	.00673	.00288	.03752
#2	.00831	.00900	.00334	.0170	.00685	.00286	.03697

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00216	.10259	.00243	.00289	.00155	.00036
Stddev	.00006	.00208	.00012	.00018	.00010	.00001
%RSD	2.8425	2.0253	4.7536	6.2789	6.3075	1.4464

#1	.00220	.10406	.00235	.00302	.00162	.00036
#2	.00211	.10112	.00252	.00277	.00148	.00037

Sample Name: IC-4954076 Acquired: 10/26/2018 8:40:22 Type: Cal
 Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.1	1652.6	47411.	3724.3
Stddev	.9	5.3	20.	1.4
%RSD	.03092	.32131	.04165	.03746
#1	2824.5	1648.9	47397.	3723.3
#2	2825.7	1656.4	47425.	3725.2

Sample Name: IC-4927698 Acquired: 10/26/2018 8:44:14 Type: Cal
Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.22505	1.1147	.07735	.50546	7.2665	8.2008	6.8519
Stddev	.00021	.0008	.00010	.00022	.0156	.0501	.0239
%RSD	.09445	.06913	.12678	.04298	.21476	.61096	.34855

#1	.22490	1.1141	.07742	.50561	7.2776	8.2362	6.8688
#2	.22520	1.1152	.07728	.50530	7.2555	8.1653	6.8350

Elem	Ca3179	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.8689	2.2307	.0378	.71944	.14229	.19835	6.3170
Stddev	.0262	.0017	.0005	.00088	.00008	.00072	.0163
%RSD	.29530	.07571	1.389	.12270	.05784	.36246	.25747

#1	8.8874	2.2295	.0382	.71882	.14223	.19784	6.3285
#2	8.8503	2.2319	.0374	.72007	.14235	.19886	6.3055

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.31469	3.5561	2.0509	.78084	.71289	.88574	.82409
Stddev	.00114	.0032	.0035	.00147	.00309	.00143	.00118
%RSD	.36286	.09138	.16920	.18888	.43348	.16171	.14279

#1	.31388	3.5584	2.0534	.77980	.71507	.88473	.82492
#2	.31550	3.5538	2.0485	.78189	.71070	.88675	.82325

Elem	Na5895	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	12.831	.43649	.46627	.15052	2.155	.17471	.07379
Stddev	.021	.00136	.00071	.00007	.000	.00055	.00003
%RSD	.16721	.31135	.15274	.04844	.0151	.31398	.03731

#1	12.846	.43745	.46577	.15047	2.155	.17510	.07381
#2	12.816	.43553	.46678	.15058	2.156	.17433	.07377

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.7727	.10575	11.238	.25256	.08459	.18856	.01723
Stddev	.0082	.00055	.028	.00018	.00010	.00077	.00006
%RSD	.46161	.52363	.25219	.07002	.12406	.40670	.33045

#1	1.7670	.10615	11.258	.25243	.08451	.18802	.01719
#2	1.7785	.10536	11.218	.25268	.08466	.18910	.01727

Sample Name: IC-4927698 Acquired: 10/26/2018 8:44:14 Type: Cal
 Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2646.6	1613.6	45703.	3639.8
Stddev	2.3	.9	163.	9.7
%RSD	.08538	.05506	.35645	.26660
#1	2648.2	1614.2	45818.	3632.9
#2	2645.0	1613.0	45588.	3646.7

Sample Name: IC-4927697 Acquired: 10/26/2018 8:47:56 Type: Cal
Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.46097	2.2085	.15459	1.0047	14.352	16.148	13.462
Stddev	.00120	.0018	.00001	.0028	.058	.074	.003
%RSD	.26093	.08021	.00731	.27837	.40165	.45968	.02345
#1	.46182	2.2072	.15458	1.0028	14.311	16.201	13.464
#2	.46012	2.2097	.15460	1.0067	14.392	16.096	13.459
Elem	Ca3179	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	17.541	4.4590	.0785	1.4353	.27843	.39345	12.366
Stddev	.009	.0042	.0003	.0001	.00056	.00021	.012
%RSD	.05030	.09342	.4207	.00344	.20081	.05420	.09968
#1	17.535	4.4561	.0783	1.4354	.27882	.39330	12.358
#2	17.547	4.4620	.0788	1.4353	.27803	.39360	12.375
Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.61842	7.2178	4.1616	1.5424	1.4001	1.7286	1.6239
Stddev	.00203	.0255	.0187	.0032	.0009	.0023	.0008
%RSD	.32887	.35334	.44877	.20598	.06650	.13083	.04745
#1	.61699	7.1998	4.1484	1.5446	1.4007	1.7302	1.6234
#2	.61986	7.2358	4.1748	1.5401	1.3994	1.7270	1.6245
Elem	Na5895	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	25.811	.88235	.92444	.29983	4.330	.34876	.14713
Stddev	.085	.00223	.00140	.00010	.015	.00050	.00091
%RSD	.32802	.25243	.15106	.03477	.3515	.14412	.61583
#1	25.751	.88077	.92543	.29991	4.319	.34840	.14649
#2	25.871	.88392	.92346	.29976	4.340	.34911	.14777
Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.4688	.21231	22.264	.49816	.16766	.37116	.03350
Stddev	.0194	.00002	.074	.00010	.00002	.00030	.00004
%RSD	.56068	.00824	.33289	.02089	.00939	.08122	.11622
#1	3.4551	.21232	22.212	.49823	.16768	.37138	.03353
#2	3.4826	.21229	22.316	.49808	.16765	.37095	.03348

Sample Name: IC-4927697 Acquired: 10/26/2018 8:47:56 Type: Cal
 Method: oct2018updatediecs(v23) Mode: IR Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2538.6	1576.8	44886.	3587.1
Stddev	4.0	.9	74.	5.5
%RSD	.15891	.05793	.16593	.15460
#1	2535.7	1576.1	44833.	3583.1
#2	2541.4	1577.4	44938.	3591.0

Sample Name: ICV-4954074 Acquired: 10/26/2018 8:51:36 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35862	W 17.433	W .34834	W .34052	W .35549	W .35527	18.029
Stddev	.00108	.001	.00004	.00163	.00172	.00013	.008
%RSD	.30197	.00481	.01286	.47957	.48326	.03620	.04341
#1	.35786	17.432	.34831	.34168	.35427	.35518	18.023
#2	.35939	17.434	.34837	.33937	.35670	.35536	18.034
Check ?	Chk Pass	Chk Warn	Chk Warn	Chk Warn	Chk Warn	Chk Warn	Chk Pass
Value		18.750	.37500	.37500	.37500	.37500	
Range		-5.0000%	-5.0000%	-5.0000%	-5.0000%	-5.0000%	
Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.35832	.0129	W .35119	.36089	.35779	17.900	W 17.564
Stddev	.00037	.0015	.00011	.00006	.00044	.005	.038
%RSD	.10439	11.59	.03174	.01778	.12425	.02619	.21788
#1	.35859	.0118	.35111	.36094	.35748	17.904	17.591
#2	.35806	.0139	.35127	.36085	.35811	17.897	17.537
Check ?	Chk Pass	None	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value			.37500				18.750
Range			-5.0000%				-5.0000%
Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W .34637	W 17.565	.36896	.36148	W 17.407	W .35100	W .35207
Stddev	.00004	.001	.00060	.00095	.033	.00039	.00150
%RSD	.01228	.00815	.16310	.26368	.18795	.11245	.42532
#1	.34634	17.566	.36853	.36216	17.430	.35072	.35312
#2	.34640	17.564	.36938	.36081	17.383	.35128	.35101
Check ?	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Warn	Chk Warn	Chk Warn
Value	.37500	18.750			18.750	.37500	.37500
Range	-5.0000%	-5.0000%			-5.0000%	-5.0000%	-5.0000%

Sample Name: ICV-4954074 Acquired: 10/26/2018 8:51:36 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W 17.71	W .34807	W .34998	18.649	.36099	.36012	.35803
Stddev	.05	.00104	.00749	.148	.00075	.00055	.00028
%RSD	.2684	.29889	2.1396	.79304	.20710	.15220	.07874

#1	17.75	.34880	.35527	18.545	.36046	.36051	.35783
#2	17.68	.34733	.34468	18.754	.36152	.35973	.35823

Check ?	Chk Warn	Chk Warn	Chk Warn	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	18.75	.37500	.37500				
Range	-5.000%	-5.0000%	-5.0000%				

Elem	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	W .34997	.35719	.37008
Stddev	.00186	.00047	.00423
%RSD	.53275	.13081	1.1436

#1	.35129	.35686	.36708
#2	.34865	.35752	.37307

Check ?	Chk Warn	Chk Pass	Chk Pass
Value	.37500		
Range	-5.0000%		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2709.6	1610.8	46275.	3660.6
Stddev	2.8	3.3	156.	12.6
%RSD	.10199	.20302	.33650	.34323

#1	2707.7	1608.5	46385.	3651.8
#2	2711.6	1613.1	46165.	3669.5

Sample Name: ICB-4957862 Acquired: 10/26/2018 8:55:20 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.00628	.00096	.00077	.00000	.00003	.00254	.00004
Stddev	.00009	.01240	.00072	.00024	.00000	.00001	.00119	.00004
%RSD	54.895	197.42	75.167	30.724	80.823	24.448	46.929	97.660

#1	-.00022	.00249	.00146	.00094	.00000	.00003	.00338	.00001
#2	-.00010	-.01505	.00045	.00060	.00000	.00004	.00170	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072	-.00020	.00014	-.00038	.00050	-.01605	-.00008	-.00037
Stddev	.0154	.00001	.00027	.00009	.00248	.01495	.00008	.00156
%RSD	215.4	5.7361	200.02	24.545	492.24	93.131	96.836	419.50

#1	.0181	-.00021	-.00006	-.00045	.00226	-.00548	-.00013	.00073
#2	-.0038	-.00019	.00033	-.00032	-.00125	-.02662	-.00002	-.00148

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00105	-.00899	-.00016	-.00033	.0001	-.00015	.00033
Stddev	.00001	.00020	.00170	.00009	.00185	.0010	.00234	.00177
%RSD	20.788	19.349	18.931	55.318	553.74	813.9	1516.0	539.15

#1	.00005	.00120	-.00779	-.00023	.00097	.0008	.00150	-.00092
#2	.00006	.00091	-.01020	-.00010	-.00164	-.0006	-.00181	.00158

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICB-4957862 Acquired: 10/26/2018 8:55:20 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00634	.00005	.00001	.00014	-.00041	.00004	.00078
Stddev	.01090	.00019	.00004	.00013	.00032	.00031	.00120
%RSD	171.87	399.44	470.41	94.997	79.220	864.09	154.24

#1	-.00137	.00018	-.00002	.00024	-.00063	.00026	.00162
#2	.01405	-.00009	.00004	.00005	-.00018	-.00018	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2854.0	1640.5	47938.	3706.5
Stddev	3.9	6.8	219.	6.2
%RSD	.13684	.41239	.45717	.16632

#1	2851.2	1635.7	47783.	3710.9
#2	2856.8	1645.3	48093.	3702.1

Sample Name: iCVL-4954076 Acquired: 10/26/2018 8:59:12 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00574	.19826	.01461	.01930	.00204	.00204	.50950	.00197
Stddev	.00006	.02170	.00180	.00006	.00001	.00004	.00082	.00001
%RSD	.96421	10.945	12.293	.32987	.48218	2.0208	.16002	.41519
#1	.00578	.21360	.01334	.01934	.00203	.00207	.51008	.00196
#2	.00570	.18291	.01588	.01925	.00204	.00201	.50893	.00198

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113	.00359	.00391	.00952	.04980	.44006	.02820	.20096
Stddev	.0097	.00022	.00031	.00016	.00203	.03377	.00017	.00048
%RSD	86.23	6.0330	7.9319	1.7151	4.0679	7.6728	.59710	.23969
#1	.0044	.00343	.00413	.00964	.05123	.41618	.02808	.20062
#2	.0181	.00374	.00369	.00940	.04837	.46393	.02832	.20130

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00289	.00984	.93051	.00974	.00994	.1898	.01668	.02149
Stddev	.00002	.00012	.00989	.00003	.00051	.0041	.00008	.00192
%RSD	.64595	1.2180	1.0631	.26079	5.1779	2.182	.48537	8.9122
#1	.00290	.00975	.93751	.00976	.01030	.1868	.01663	.02014
#2	.00287	.00992	.92352	.00972	.00957	.1927	.01674	.02285

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: iCVL-4954076 Acquired: 10/26/2018 8:59:12 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47640	.01015	.00496	.00448	.01905	.00471	.01132
Stddev	.01815	.00013	.00009	.00044	.00095	.00009	.00046
%RSD	3.8103	1.2790	1.7662	9.7596	4.9622	1.9062	4.0881

#1	.46356	.01006	.00502	.00417	.01838	.00477	.01099
#2	.48923	.01024	.00490	.00479	.01971	.00464	.01165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2829.6	1652.2	47371.	3710.0
Stddev	1.0	1.0	59.	15.8
%RSD	.03514	.06238	.12380	.42672

#1	2830.3	1652.9	47412.	3698.8
#2	2828.9	1651.5	47330.	3721.2

Sample Name: ICSA-4901305 Acquired: 10/26/2018 9:03:03 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	477.82	-.01111	.00029	.00091	.00009	451.10	.00073
Stddev	.00016	3.01	.00231	.00019	.00001	.00001	3.91	.00012
%RSD	24.162	.62904	20.770	65.207	1.3449	8.8173	.86657	16.139

#1	-.00054	479.94	-.01275	.00016	.00092	.00008	453.86	.00065
#2	-.00076	475.69	-.00948	.00043	.00090	.00009	448.33	.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0498	-.00026	-.00145	-.00014	181.51	.01717	.00561	478.78
Stddev	.0005	.00019	.00002	.00041	.90	.02210	.00007	.72
%RSD	.9735	72.370	1.6671	292.31	.49729	128.71	1.3132	.14934

#1	.0495	-.00040	-.00143	.00015	182.15	.03280	.00556	478.27
#2	.0502	-.00013	-.00147	-.00043	180.87	.00154	.00567	479.28

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00066	-.00060	.04232	-.00031	-.00344	.0388	-.01347	.00066
Stddev	.00008	.00034	.00563	.00002	.00326	.0010	.00217	.00304
%RSD	12.934	56.259	13.305	6.4099	94.756	2.529	16.101	457.62

#1	-.00072	-.00036	.03834	-.00032	-.00114	.0395	-.01501	-.00148
#2	-.00060	-.00084	.04630	-.00029	-.00575	.0381	-.01194	.00281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICSA-4901305 Acquired: 10/26/2018 9:03:03 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00015	-0.00149	.01482	-0.00083	.00018	-0.00067	.00347
Stddev	.00014	.00067	.00002	.00026	.00064	.00031	.00032
%RSD	95.387	45.202	.10947	30.870	348.90	46.365	9.2421

#1	-0.00005	-0.00101	.01481	-0.00065	.00064	-0.00089	.00369
#2	-0.00025	-0.00196	.01483	-0.00101	-0.00027	-0.00045	.00324

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2194.8	1443.1	41263.	3504.1
Stddev	3.1	.1	61.	26.1
%RSD	.14259	.00655	.14687	.74466

#1	2197.0	1443.2	41306.	3485.6
#2	2192.5	1443.1	41220.	3522.6

Sample Name: ICSAB-4954073 Acquired: 10/26/2018 9:07:02 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21054	489.95	.09049	.00515	.47540	.47662	453.62	.98368
Stddev	.00010	.16	.00258	.00002	.00216	.00012	1.25	.00422
%RSD	.04655	.03230	2.8503	.41950	.45411	.02500	.27614	.42903

#1	.21061	490.06	.08867	.00517	.47693	.47653	454.50	.98666
#2	.21047	489.84	.09231	.00514	.47388	.47670	452.73	.98069

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0234	.46747	.44297	.51945	88.737	.04080	.52097	491.82
Stddev	.0021	.00065	.00124	.00330	.174	.01248	.00017	2.69
%RSD	9.080	.13981	.28008	.63572	.19641	30.593	.03298	.54608

#1	.0219	.46793	.44385	.51712	88.860	.03197	.52109	489.92
#2	.0249	.46701	.44210	.52179	88.613	.04962	.52085	493.72

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44450	.00023	.20432	.91562	.04612	.9938	.56072	.04464
Stddev	.00073	.00010	.00531	.00091	.00074	.0024	.00531	.00555
%RSD	.16529	44.558	2.5971	.09910	1.6020	.2445	.94754	12.422

#1	.44398	.00016	.20807	.91498	.04664	.9956	.56447	.04857
#2	.44502	.00031	.20057	.91626	.04560	.9921	.55696	.04072

Check ?	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ICSAB-4954073 Acquired: 10/26/2018 9:07:02 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.92115	-.00162	.46874	.00038	.09349	.46635	.89241
Stddev	.00001	.00017	.00047	.00004	.00039	.00093	.00475
%RSD	.00113	10.223	.10118	11.754	.41769	.19958	.53231

#1	.92114	-.00150	.46908	.00041	.09322	.46701	.89576
#2	.92116	-.00174	.46841	.00035	.09377	.46570	.88905

Check ?	Chk Pass	None	None	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2200.9	1447.7	41343.	3519.7
Stddev	2.0	3.1	55.	5.8
%RSD	.09218	.21560	.13288	.16357

#1	2202.3	1445.5	41382.	3515.6
#2	2199.4	1449.9	41305.	3523.8

Sample Name: ICEX1 Acquired: 10/26/2018 9:10:59 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00040	4.8366	-.00029	.00031
Stddev	.00010	.02088	.0038	.00014	.00002
%RSD	703.48	5232.5	.07765	48.924	6.6471

#1	-.00006	-.01517	4.8392	-.00039	.00029
#2	.00009	.01437	4.8339	-.00019	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.03392	.00016	.0029	.00010
Stddev	.00007	.00372	.00011	.0032	.00007
%RSD	21.596	10.970	71.637	110.7	72.069

#1	-.00026	.03655	.00024	.0052	.00016
#2	-.00035	.03129	.00008	.0006	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	24.072	.00981	-.01407	.00058
Stddev	.00005	.019	.00096	.02071	.00012
%RSD	114.11	.07934	9.8255	147.18	21.294

#1	-.00001	24.085	.01049	-.02871	.00067
#2	-.00007	24.058	.00913	.00057	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX1 Acquired: 10/26/2018 9:10:59 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00911	-.00011	.00118	.01466	.00003
Stddev	.00161	.00002	.00014	.00311	.00017
%RSD	17.616	20.468	12.018	21.196	538.76

#1	.00798	-.00013	.00128	.01686	.00015
#2	.01025	-.00009	.00108	.01246	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00103	.0129	.00353	-.00333	-.01961
Stddev	.00002	.0001	.00024	.00150	.00503
%RSD	1.7752	.8549	6.8068	45.010	25.640

#1	.00102	.0129	.00370	-.00227	-.02316
#2	.00105	.0128	.00336	-.00439	-.01605

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00005	-.00189	.00979	4.5094
Stddev	.00067	.00007	.00002	.00025	.0161
%RSD	235.73	140.89	.80225	2.5295	.35698

#1	.00076	.00010	-.00187	.00961	4.4980
#2	-.00019	.00000	-.00190	.00996	4.5208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX1 Acquired: 10/26/2018 9:10:59 Type: Unk
 Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00367**
 Stddev .00043
 %RSD 11.769

#1 **.00337**
 #2 **.00398**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2822.2	1639.5	47318.	3680.0
Stddev	2.0	.9	24.	.1
%RSD	.06972	.05636	.05008	.00406

#1	2820.8	1640.2	47301.	3680.1
#2	2823.6	1638.9	47335.	3679.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.773%	98.645%	99.104%	99.551%
Range				

Sample Name: ICEx2 Acquired: 10/26/2018 9:14:59 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00096	.01593	-.00025	.00629	.00009
Stddev	.00037	.01296	.00037	.00011	.00002
%RSD	38.467	81.367	148.15	1.7921	28.217

#1	-.00122	.00676	.00001	.00621	.00007
#2	-.00070	.02509	-.00051	.00637	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.02602	.00056	-.0129	-.00057
Stddev	.00014	.00044	.00019	.0169	.00034
%RSD	9933.4	1.6926	33.929	131.5	59.169

#1	.00010	.02633	.00043	-.0248	-.00081
#2	-.00010	.02570	.00070	-.0009	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00067	-.00636	.00123	-.01223	9.4717
Stddev	.00015	.00019	.00119	.00334	.0157
%RSD	22.842	2.9679	97.012	27.300	.16546

#1	.00078	-.00622	.00039	-.00987	9.4606
#2	.00056	-.00649	.00207	-.01460	9.4828

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEx2 Acquired: 10/26/2018 9:14:59 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.03465	-.00001	.00020	.01268	.00689
Stddev	.00144	.00000	.00010	.00282	.00032
%RSD	4.1678	24.016	47.639	22.240	4.5948

#1	-.03363	-.00002	.00013	.01069	.00666
#2	-.03567	-.00001	.00027	.01467	.00711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00702	.0017	.00149	.00177	52.003
Stddev	.00097	.0001	.00050	.00200	.731
%RSD	13.751	6.207	33.244	112.99	1.4062

#1	-.00770	.0018	.00114	.00036	51.486
#2	-.00634	.0016	.00185	.00318	52.520

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00172	.00013	19.564	19.127	-.00022
Stddev	.00010	.00008	.115	.011	.00007
%RSD	5.5943	56.643	.59015	.05749	30.712

#1	-.00178	.00008	19.646	19.119	-.00027
#2	-.00165	.00019	19.483	19.135	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX2 Acquired: 10/26/2018 9:14:59 Type: Unk
 Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00283**
 Stddev .00051
 %RSD 18.089

#1 **.00247**
 #2 **.00320**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2726.9	1612.9	46696.	3681.5
Stddev	.9	1.5	110.	.4
%RSD	.03336	.09562	.23556	.01044

#1	2726.3	1611.8	46618.	3681.2
#2	2727.6	1614.0	46773.	3681.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.438%	97.044%	97.800%	99.592%
Range				

Sample Name: ICEX3 Acquired: 10/26/2018 9:18:54 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00096	.02494	.00343	.00042	.00003
Stddev	.00014	.01355	.00127	.00029	.00000
%RSD	14.218	54.346	37.074	68.471	2.8806

#1	-.00105	.01536	.00253	.00063	.00003
#2	-.00086	.03453	.00433	.00022	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.02726	.00002	-.1432	.00012
Stddev	.00001	.00024	.00002	.0239	.00002
%RSD	38.372	.86870	95.298	16.70	19.384

#1	.00004	.02742	.00004	-.1601	.00010
#2	.00002	.02709	.00001	-.1263	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00075	.00918	-.01231	.00395
Stddev	.00000	.00020	.00297	.01562	.00027
%RSD	.31935	26.013	32.332	126.88	6.7124

#1	-.00015	.00089	.00708	-.00127	.00377
#2	-.00015	.00062	.01128	-.02335	.00414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX3 Acquired: 10/26/2018 9:18:54 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	49.654	-.00164	.00877	.00055
Stddev	.00348	.065	.00001	.00218	.00014
%RSD	1092.3	.13041	.84221	24.907	25.010

#1	-.00214	49.608	-.00163	.00723	.00064
#2	.00278	49.699	-.00165	.01032	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00464	91.83	-.00244	.01491	.07001
Stddev	.00000	.26	.00053	.00156	.00973
%RSD	.01456	.2853	21.593	10.441	13.894

#1	.00464	92.01	-.00281	.01381	.06313
#2	.00464	91.64	-.00206	.01601	.07689

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.00000	F .01347	.00385	.00022
Stddev	.00013	.00006	.00075	.00111	.00016
%RSD	28.098	2421.9	5.6021	28.881	73.733

#1	-.00038	-.00004	.01293	.00464	.00034
#2	-.00056	.00005	.01400	.00307	.00011

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			.00500		
Low Limit			-.00500		

Sample Name: ICEX3 Acquired: 10/26/2018 9:18:54 Type: Unk
 Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00438**
 Stddev .00069
 %RSD 15.851

#1 **.00389**
 #2 **.00487**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2832.0	1655.4	47010.	3679.9
Stddev	2.4	1.8	55.	9.3
%RSD	.08475	.10929	.11780	.25239

#1	2830.3	1654.1	47049.	3686.5
#2	2833.7	1656.7	46971.	3673.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.114%	99.601%	98.459%	99.550%
Range				

Sample Name: ICEx4 Acquired: 10/26/2018 9:22:49 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00446	.00088	-.00099	.00006
Stddev	.00049	.01272	.00010	.00016	.00001
%RSD	224.65	285.57	11.023	15.785	10.159

#1	-.00013	-.00454	.00082	-.00110	.00006
#2	.00057	.01345	.00095	-.00088	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.01708	F -.00208	.0225	18.884
Stddev	.00007	.00138	.00005	.0115	.012
%RSD	417.95	8.0545	2.5384	50.98	.06456

#1	-.00003	.01806	-.00212	.0306	18.893
#2	.00006	.01611	-.00205	.0144	18.875

Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit			.00200		
Low Limit			-.00200		

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.044	.00460	.00269	-.04325	.00161
Stddev	.003	.00026	.00279	.01707	.00128
%RSD	.02704	5.7082	103.59	39.481	79.781

#1	10.042	.00442	.00466	-.03117	.00070
#2	10.046	.00479	.00072	-.05532	.00251

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEx4 Acquired: 10/26/2018 9:22:49 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00525	F .02198	.00050	-.00882	9.8570
Stddev	.00072	.00010	.00002	.00037	.0070
%RSD	13.762	.46951	4.6588	4.2273	.07098

#1	-.00474	.02206	.00048	-.00908	9.8619
#2	-.00576	.02191	.00051	-.00855	9.8520

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.00300			
Low Limit		-.00300			

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00204	.0490	-.01109	-.00255	-.07754
Stddev	.00076	.0042	.00104	.00158	.00351
%RSD	37.257	8.558	9.3909	61.883	4.5272

#1	-.00150	.0520	-.01183	-.00367	-.07506
#2	-.00258	.0460	-.01036	-.00143	-.08002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.00000	.00242	.00794	.00035
Stddev	.00011	.00004	.00030	.00181	.00004
%RSD	32.411	2617.5	12.203	22.844	12.266

#1	-.00026	.00003	.00221	.00922	.00039
#2	-.00041	-.00002	.00263	.00665	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX4 Acquired: 10/26/2018 9:22:49 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00418**
Stddev .00035
%RSD 8.3281

#1 **.00442**
#2 **.00393**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2815.9	1646.8	46970.	3632.5
Stddev	2.1	2.2	4.	8.0
%RSD	.07494	.13567	.00953	.21974

#1	2814.4	1648.4	46967.	3626.9
#2	2817.4	1645.2	46974.	3638.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.552%	99.083%	98.376%	98.267%
Range				

Sample Name: ICEX5 Acquired: 10/26/2018 9:26:37 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.07280	.00151	-.01496	-.00003
Stddev	.00016	.02255	.00224	.00005	.00001
%RSD	603.49	30.979	147.86	.30923	25.840

#1	.00014	.08874	-.00007	-.01493	-.00003
#2	-.00008	.05685	.00309	-.01499	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.01531	.00015	-.0003	.00297
Stddev	.00003	.00222	.00003	.0123	.00006
%RSD	13.151	14.532	19.255	4287.	1.9244

#1	-.00022	.01688	.00017	.0084	.00301
#2	-.00018	.01374	.00013	-.0090	.00293

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .00431	-.00101	.00025	-.03716	.00173
Stddev	.00021	.00002	.00053	.00384	.00017
%RSD	4.8719	1.8787	214.73	10.341	9.7097

#1	.00446	-.00099	.00062	-.03444	.00161
#2	.00416	-.00102	-.00013	-.03988	.00185

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00400				
Low Limit	-.00400				

Sample Name: ICEX5 Acquired: 10/26/2018 9:26:37 Type: Unk
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.06452	.00099	4.7243	.00325	.00458
Stddev	.00062	.00001	.0116	.00367	.00040
%RSD	.95544	.60040	.24568	113.15	8.8239

#1	-.06409	.00100	4.7161	.00585	.00487
#2	-.06496	.00099	4.7325	.00065	.00430

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00782	.0024	.00060	-.00005	-.02811
Stddev	.00069	.0021	.00027	.00416	.01616
%RSD	8.8017	87.75	44.944	8373.6	57.498

#1	-.00733	.0039	.00078	.00289	-.03953
#2	-.00830	.0009	.00041	-.00299	-.01668

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00004	.00389	-.00070	.00244
Stddev	.00072	.00001	.00028	.00012	.00034
%RSD	180.34	21.124	7.1212	17.731	14.121

#1	.00091	.00004	.00369	-.00078	.00269
#2	-.00011	.00003	.00409	-.00061	.00220

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX5 Acquired: 10/26/2018 9:26:37 Type: Unk
 Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00449**
 Stddev .00085
 %RSD 18.929

#1 **.00509**
 #2 **.00389**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.2	1650.1	47608.	3698.6
Stddev	4.4	5.4	82.	27.9
%RSD	.15556	.32532	.17138	.75504

#1	2821.3	1653.9	47666.	3678.9
#2	2815.1	1646.3	47551.	3718.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.632%	99.278%	99.712%	100.05%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 9:30:29 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47488	23.199	.46811	.45159	.47342	.46958	23.822	.47718
Stddev	.00076	.115	.00303	.00008	.00162	.00317	.099	.00034
%RSD	.15905	.49481	.64629	.01699	.34263	.67410	.41508	.07146
#1	.47435	23.280	.46597	.45154	.47227	.47182	23.892	.47742
#2	.47542	23.118	.47025	.45165	.47456	.46734	23.752	.47694

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055	.46703	.47787	.47620	23.659	23.506	.46493	23.243
Stddev	.0116	.00052	.00153	.00087	.155	.141	.00077	.036
%RSD	210.8	.11210	.31983	.18219	.65498	.59971	.16591	.15632
#1	-.0027	.46666	.47679	.47681	23.768	23.606	.46547	23.218
#2	.0137	.46740	.47895	.47558	23.549	23.407	.46438	23.269

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48707	.50726	23.303	.46754	.46887	23.74	.46538	.46298
Stddev	.00057	.00094	.113	.00046	.00268	.01	.00035	.00022
%RSD	.11632	.18463	.48703	.09795	.57097	.0541	.07426	.04763
#1	.48667	.50792	23.384	.46722	.46698	23.73	.46562	.46313
#2	.48747	.50660	23.223	.46786	.47076	23.75	.46513	.46282

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 9:30:29 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.851	.48145	.47971	.47922	.46536	.47573	.46936
Stddev	.019	.00030	.00301	.00073	.00128	.00126	.00192
%RSD	.08126	.06258	.62680	.15325	.27425	.26437	.40838

#1	23.865	.48167	.48184	.47870	.46626	.47484	.46801
#2	23.837	.48124	.47759	.47974	.46446	.47662	.47072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2681.3	1600.0	46132.	3641.0
Stddev	1.5	2.4	6.	6.4
%RSD	.05458	.14919	.01307	.17649

#1	2680.2	1598.4	46127.	3636.4
#2	2682.3	1601.7	46136.	3645.5

Sample Name: CCB-4957862 Acquired: 10/26/2018 9:34:12 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.01200	.00120	-.00018	.00001	.00003	.00099	.00000
Stddev	.00028	.00453	.00055	.00019	.00001	.00001	.00082	.00004
%RSD	152.02	37.747	45.615	105.15	43.725	48.471	82.347	1264.1
#1	-.00001	.01521	.00082	-.00005	.00001	.00002	.00041	.00003
#2	.00038	.00880	.00159	-.00031	.00002	.00004	.00157	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065	-.00013	.00033	-.00027	.00228	-.01858	.00052	.00002
Stddev	.0021	.00001	.00006	.00007	.00203	.00869	.00030	.00080
%RSD	32.67	6.2225	18.053	25.896	89.374	46.760	57.733	3460.2
#1	.0050	-.00012	.00038	-.00022	.00371	-.01244	.00031	-.00054
#2	.0080	-.00013	.00029	-.00032	.00084	-.02472	.00073	.00059

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00361	-.01840	.00002	-.00077	-.0001	-.00009	.00003
Stddev	.00001	.00014	.00434	.00002	.00058	.0001	.00015	.00331
%RSD	7.4668	3.8935	23.597	77.538	75.638	61.04	162.41	10132.
#1	.00009	.00351	-.02147	.00001	-.00036	-.0002	-.00020	.00237
#2	.00008	.00371	-.01533	.00004	-.00118	-.0001	.00001	-.00231

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 9:34:12 Type: QC
Method: oct2018updatediecs(v23) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00573	.00033	-.00005	.00023	-.00165	-.00001	.00025
Stddev	.00928	.00055	.00000	.00000	.00000	.00012	.00024
%RSD	161.88	167.75	10.229	.15648	.19288	2285.0	98.238

#1	-.00083	-.00006	-.00005	.00023	-.00165	-.00009	.00042
#2	.01230	.00072	-.00004	.00023	-.00165	.00008	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2848.2	1638.4	47848.	3682.2
Stddev	.1	.4	35.	5.7
%RSD	.00227	.02440	.07309	.15528

#1	2848.3	1638.7	47823.	3686.3
#2	2848.2	1638.1	47873.	3678.2

Sample Name: CCVL-4954076 Acquired: 10/26/2018 9:50:00 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00574	.19038	.01568	.01906	.00201	.00194	.50007	.00197
Stddev	.00004	.01773	.00364	.00019	.00002	.00007	.00172	.00000
%RSD	.68183	9.3122	23.202	1.0154	1.2153	3.7356	.34364	.02037

#1	.00571	.17785	.01825	.01892	.00199	.00199	.50129	.00197
#2	.00577	.20292	.01310	.01920	.00202	.00189	.49886	.00197

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198	.00380	.00392	.00927	.05118	.38179	.02744	.19677
Stddev	.0117	.00002	.00015	.00010	.00229	.00465	.00065	.00033
%RSD	59.34	.42387	3.7222	1.0253	4.4705	1.2177	2.3637	.16892

#1	.0115	.00381	.00403	.00934	.04956	.37851	.02699	.19654
#2	.0280	.00379	.00382	.00921	.05280	.38508	.02790	.19701

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00276	.01011	.90223	.00977	.01046	.1958	.01825	.02217
Stddev	.00002	.00006	.00348	.00006	.00124	.0011	.00129	.00049
%RSD	.80675	.56812	.38551	.57214	11.837	.5738	7.0721	2.2143

#1	.00274	.01015	.89977	.00973	.00958	.1950	.01734	.02183
#2	.00278	.01006	.90469	.00981	.01134	.1966	.01917	.02252

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 9:50:00 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46778	.00939	.00474	.00462	.01794	.00479	.01145
Stddev	.01035	.00072	.00000	.00001	.00039	.00019	.00134
%RSD	2.2119	7.6354	.09423	.21687	2.1655	3.9192	11.742

#1	.46047	.00989	.00475	.00462	.01766	.00465	.01050
#2	.47510	.00888	.00474	.00463	.01821	.00492	.01240

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2833.0	1620.8	47534.	3667.1
Stddev	3.1	.3	65.	15.3
%RSD	.11112	.01940	.13637	.41668

#1	2835.3	1621.0	47580.	3656.3
#2	2830.8	1620.6	47488.	3677.9

Sample Name: 480-143525-A-7-D@5 Acquired: 10/26/2018 9:53:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	20.820	.03733	.03532	.92655
Stddev	.00014	.092	.00034	.00032	.00067
%RSD	66.759	.44378	.90821	.90330	.07283

#1	.00011	20.886	.03709	.03510	.92703
#2	.00031	20.755	.03757	.03555	.92608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00270	123.08	.00403	.0902	.01190
Stddev	.00009	.01	.00002	.0065	.00006
%RSD	3.5129	.00857	.53887	7.169	.48844

#1	.00263	123.09	.00401	.0856	.01194
#2	.00277	123.07	.00404	.0948	.01185

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08514	.22558	143.36	2.5954	.02921
Stddev	.00052	.00040	.38	.0088	.00113
%RSD	.61014	.17739	.26832	.33763	3.8665

#1	.08477	.22530	143.09	2.6016	.02841
#2	.08551	.22586	143.64	2.5892	.03001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-7-D@5 Acquired: 10/26/2018 9:53:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.268	3.7745	.01115	.51615	.06609
Stddev	.009	.0199	.00037	.01087	.00005
%RSD	.04393	.52706	3.3587	2.1066	.07810

#1	20.262	3.7605	.01089	.50847	.06605
#2	20.275	3.7886	.01142	.52384	.06613

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3960	2.833	-.01137	.00065	2.1572
Stddev	.0019	.005	.00024	.00398	.0057
%RSD	.13575	.1629	2.0680	608.66	.26590

#1	1.3947	2.830	-.01121	.00347	2.1613
#2	1.3973	2.837	-.01154	-.00216	2.1532

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03372	.39709	.65271	-.00051	.06273
Stddev	.00040	.00013	.00213	.00044	.00046
%RSD	1.1868	.03257	.32688	86.509	.74010

#1	.03400	.39700	.65422	-.00083	.06306
#2	.03344	.39719	.65120	-.00020	.06240

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-7-D@5 Acquired: 10/26/2018 9:53:52 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **2.0575**
 Stddev .0024
 %RSD .11465

#1 2.0558
 #2 2.0592

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2600.4	1575.0	46332.	3677.1
Stddev	3.3	2.5	24.	.2
%RSD	.12778	.16185	.05122	.00557

#1	2598.1	1573.1	46349.	3676.9
#2	2602.8	1576.8	46315.	3677.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.010%	94.759%	97.038%	99.472%
Range				

Sample Name: 480-143525-A-8-D@5 Acquired: 10/26/2018 9:57:45 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	41.967	.03708	.09814	.30858
Stddev	.00011	.022	.00125	.00032	.00131
%RSD	154.58	.05360	3.3695	.32661	.42456

#1	-.00001	41.951	.03796	.09791	.30951
#2	.00015	41.983	.03619	.09837	.30766

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00761	220.26	.00663	.3421	.01052
Stddev	.00001	.70	.00001	.0049	.00013
%RSD	.14320	.31820	.12415	1.425	1.2669

#1	.00760	219.77	.00664	.3387	.01062
#2	.00761	220.76	.00662	.3456	.01043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06689	.08832	131.67	3.3582	.05493
Stddev	.00019	.00029	.55	.0234	.00036
%RSD	.28846	.32514	.42048	.69552	.65755

#1	.06702	.08812	131.28	3.3417	.05467
#2	.06675	.08852	132.06	3.3747	.05519

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-8-D@5 Acquired: 10/26/2018 9:57:45 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.079	3.5724	.00610	.62747	.04442
Stddev	.016	.0201	.00031	.00640	.00025
%RSD	.14819	.56232	5.0749	1.0203	.55838

#1	11.067	3.5866	.00632	.62294	.04459
#2	11.090	3.5582	.00588	.63199	.04424

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53983	7.375	-.01068	.00287	1.2308
Stddev	.00064	.013	.00177	.00233	.0188
%RSD	.11833	.1774	16.599	81.199	1.5274

#1	.53938	7.366	-.01194	.00122	1.2175
#2	.54028	7.384	-.00943	.00452	1.2441

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02646	.42622	1.0751	-.00067	.04596
Stddev	.00032	.00175	.0016	.00002	.00042
%RSD	1.1963	.41165	.14780	2.4203	.91763

#1	.02669	.42498	1.0740	-.00068	.04626
#2	.02624	.42746	1.0762	-.00066	.04566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-8-D@5 Acquired: 10/26/2018 9:57:45 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.2603**
 Stddev .0017
 %RSD .13217

#1 1.2615
 #2 1.2591

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2510.8	1718.2	50890.	4070.1
Stddev	1.2	1.0	254.	9.1
%RSD	.04675	.06054	.49838	.22459

#1	2511.6	1719.0	50711.	4076.5
#2	2510.0	1717.5	51069.	4063.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.873%	103.38%	106.58%	110.10%
Range				

Sample Name: 480-143525-A-11-D@5 Acquired: 10/26/2018 10:01:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	75.824	.00737	.17421	.55931
Stddev	.00045	.613	.00112	.00048	.00772
%RSD	79.116	.80892	15.247	.27687	1.3811

#1	-.00089	75.390	.00817	.17387	.55385
#2	-.00025	76.258	.00658	.17455	.56477

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01449	366.52	.00006	.3898	.00122
Stddev	.00011	2.23	.00001	.0095	.00006
%RSD	.73481	.60978	21.970	2.428	4.7689

#1	.01441	364.94	.00007	.3965	.00118
#2	.01456	368.10	.00005	.3831	.00126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00421	-.00029	9.2884	2.6591	.10777
Stddev	.00018	.00019	.0810	.0421	.00049
%RSD	4.2330	66.275	.87251	1.5833	.45432

#1	.00434	-.00015	9.2311	2.6293	.10743
#2	.00409	-.00042	9.3457	2.6888	.10812

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-11-D@5 Acquired: 10/26/2018 10:01:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.594	3.1235	.00059	2.0691	.00138
Stddev	.032	.0266	.00003	.0175	.00002
%RSD	.27994	.85071	4.8174	.84553	1.3931

#1	11.571	3.1047	.00061	2.0567	.00137
#2	11.617	3.1423	.00057	2.0814	.00140

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	23.16	-.00491	.00752	1.1171
Stddev	.00009	.04	.00085	.00233	.0249
%RSD	14.902	.1832	17.283	30.926	2.2298

#1	-.00055	23.13	-.00551	.00917	1.0995
#2	-.00068	23.19	-.00431	.00588	1.1348

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00815	.73710	1.9620	-.00127	.01666
Stddev	.00060	.00575	.0010	.00038	.00018
%RSD	7.3825	.78001	.05323	30.132	1.0870

#1	.00772	.73304	1.9628	-.00154	.01679
#2	.00857	.74117	1.9613	-.00100	.01654

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-11-D@5 Acquired: 10/26/2018 10:01:46 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00407**
 Stddev .00025
 %RSD 6.0603

#1 **.00425**
 #2 **.00390**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2439.2	1796.5	52715.	4299.4
Stddev	.1	.3	234.	30.8
%RSD	.00405	.01578	.44482	.71587

#1	2439.1	1796.7	52880.	4321.1
#2	2439.3	1796.3	52549.	4277.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.367%	108.09%	110.41%	116.31%
Range				

Sample Name: 480-143525-A-14-D@5 Acquired: 10/26/2018 10:05:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	13.248	.01307	.02159	.14888
Stddev	.00032	.019	.00131	.00069	.00022
%RSD	80.351	.14644	10.028	3.2001	.14485

#1	-.00017	13.235	.01400	.02110	.14873
#2	-.00063	13.262	.01215	.02208	.14903

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00152	267.42	.00069	.0519	.00757
Stddev	.00002	.86	.00002	.0102	.00016
%RSD	1.3451	.32318	2.2324	19.71	2.1054

#1	.00154	266.81	.00068	.0446	.00768
#2	.00151	268.03	.00070	.0591	.00746

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01942	.02588	36.208	1.6000	.02167
Stddev	.00003	.00009	.035	.0086	.00092
%RSD	.12965	.36340	.09748	.53606	4.2355

#1	.01940	.02594	36.183	1.6061	.02102
#2	.01944	.02581	36.233	1.5939	.02232

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-14-D@5 Acquired: 10/26/2018 10:05:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.716	1.9777	.00199	.34769	.02402
Stddev	.004	.0040	.00008	.00118	.00057
%RSD	.02337	.19979	4.0960	.34010	2.3537

#1	15.718	1.9805	.00205	.34685	.02442
#2	15.713	1.9749	.00193	.34852	.02362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06046	2.689	-.00697	-.00250	3.9825
Stddev	.00033	.002	.00041	.00199	.0077
%RSD	.53797	.0584	5.9182	79.629	.19332

#1	.06023	2.688	-.00726	-.00109	3.9879
#2	.06069	2.690	-.00667	-.00390	3.9770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01073	.20467	.36314	.00010	.02846
Stddev	.00000	.00013	.00083	.00042	.00014
%RSD	.03544	.06509	.22924	422.28	.48569

#1	.01074	.20457	.36255	.00039	.02856
#2	.01073	.20476	.36372	-.00020	.02837

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-14-D@5 Acquired: 10/26/2018 10:05:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.20324**
Stddev .00117
%RSD .57664

#1 **.20241**
#2 **.20406**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2531.8	1544.3	45959.	3667.0
Stddev	1.7	1.1	39.	4.1
%RSD	.06762	.07177	.08478	.11121

#1	2533.0	1545.1	45931.	3664.1
#2	2530.6	1543.5	45986.	3669.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.608%	92.916%	96.257%	99.201%
Range				

Sample Name: 480-143525-A-15-D@5 Acquired: 10/26/2018 10:09:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00189	35.862	.06850	.14919	.37706
Stddev	.00059	.003	.00141	.00007	.00050
%RSD	31.312	.00774	2.0551	.04810	.13158

#1	-.00148	35.860	.06949	.14924	.37741
#2	-.00231	35.864	.06750	.14914	.37670

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00543	262.15	.00073	.1885	.02238
Stddev	.00005	.78	.00026	.0043	.00012
%RSD	.89797	.29887	35.242	2.256	.51983

#1	.00547	262.70	.00055	.1915	.02229
#2	.00540	261.60	.00092	.1854	.02246

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.14186	.02584	352.44	1.6034	.05701
Stddev	.00054	.00007	.02	.0173	.00000
%RSD	.38059	.28459	.00624	1.0781	.00035

#1	.14148	.02589	352.46	1.5911	.05701
#2	.14225	.02578	352.43	1.6156	.05701

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-15-D@5 Acquired: 10/26/2018 10:09:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	56.598	6.3626	.00292	.51043	.02945
Stddev	.078	.0238	.00017	.00222	.00061
%RSD	.13717	.37453	5.8214	.43491	2.0699

#1	56.543	6.3795	.00304	.50886	.02988
#2	56.653	6.3458	.00280	.51200	.02902

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01181	19.38	F -.03218	.00296	1.2222
Stddev	.00012	.07	.00086	.00384	.0017
%RSD	1.0155	.3762	2.6654	129.75	.13871

#1	.01190	19.33	-.03158	.00024	1.2210
#2	.01173	19.43	-.03279	.00568	1.2234

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01255	.38357	1.6025	-.00078	.08641
Stddev	.00048	.00032	.0021	.00127	.00057
%RSD	3.8415	.08375	.12781	163.86	.66364

#1	.01289	.38334	1.6011	-.00168	.08682
#2	.01221	.38380	1.6040	.00012	.08601

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-15-D@5 Acquired: 10/26/2018 10:09:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.03973**
Stddev .00079
%RSD 1.9958

#1 **.04029**
#2 **.03917**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2428.1	1535.7	46295.	3681.1
Stddev	.5	2.0	46.	6.6
%RSD	.02260	.13024	.09984	.17970

#1	2428.5	1537.1	46262.	3676.4
#2	2427.7	1534.3	46327.	3685.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.980%	92.396%	96.960%	99.581%
Range				

Sample Name: 480-143525-A-17-D@5 Acquired: 10/26/2018 10:13:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	18.790	.01376	.03296	.28863
Stddev	.00040	.025	.00156	.00003	.00051
%RSD	726.83	.13048	11.361	.10605	.17753

#1	-0.00034	18.807	.01266	.03294	.28827
#2	.00023	18.772	.01487	.03299	.28899

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00197	94.988	.00164	.0846	.01125
Stddev	.00007	.192	.00016	.0094	.00001
%RSD	3.7883	.20180	9.7444	11.11	.11529

#1	.00203	95.124	.00175	.0912	.01124
#2	.00192	94.853	.00153	.0779	.01126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05046	.07728	79.636	3.2455	.02953
Stddev	.00024	.00038	.284	.0243	.00021
%RSD	.46946	.49045	.35638	.74864	.70901

#1	.05029	.07701	79.837	3.2626	.02968
#2	.05062	.07755	79.435	3.2283	.02938

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-17-D@5 Acquired: 10/26/2018 10:13:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.270	2.1774	.00410	.36890	.06621
Stddev	.010	.0027	.00007	.00527	.00015
%RSD	.05863	.12199	1.6727	1.4273	.23343

#1	16.263	2.1755	.00415	.36517	.06610
#2	16.276	2.1793	.00405	.37262	.06632

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33775	2.326	-.00863	-.00350	2.2573
Stddev	.00255	.000	.00036	.00004	.0040
%RSD	.75530	.0036	4.2029	1.0506	.17867

#1	.33594	2.326	-.00888	-.00348	2.2601
#2	.33955	2.326	-.00837	-.00353	2.2544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03831	.19722	.55025	-.00038	.04452
Stddev	.00080	.00078	.00061	.00005	.00018
%RSD	2.0791	.39666	.11063	11.972	.40125

#1	.03775	.19667	.54982	-.00042	.04465
#2	.03888	.19777	.55068	-.00035	.04440

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-17-D@5 Acquired: 10/26/2018 10:13:46 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.69333**
 Stddev .00091
 %RSD .13057

#1 **.69397**
 #2 **.69269**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.4	1581.7	46691.	3674.1
Stddev	2.2	.4	75.	.5
%RSD	.08356	.02682	.16000	.01390

#1	2643.9	1581.4	46639.	3673.7
#2	2647.0	1582.0	46744.	3674.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.585%	95.163%	97.791%	99.392%
Range				

Sample Name: 480-143525-A-18-D@5 Acquired: 10/26/2018 10:17:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	73.456	.00905	.22136	.73424
Stddev	.00006	.287	.00017	.00051	.00036
%RSD	9.9585	.39130	1.8327	.23021	.04953

#1	-.00064	73.252	.00894	.22099	.73450
#2	-.00056	73.659	.00917	.22172	.73399

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01247	421.80	.00023	.1644	.00157
Stddev	.00008	.34	.00001	.0139	.00009
%RSD	.63051	.07973	2.4005	8.459	5.8644

#1	.01253	421.56	.00023	.1743	.00164
#2	.01242	422.04	.00022	.1546	.00150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00744	.00063	23.091	1.3900	.13110
Stddev	.00007	.00021	.034	.0189	.00034
%RSD	.95113	33.555	.14724	1.3607	.25606

#1	.00749	.00078	23.067	1.4034	.13086
#2	.00739	.00048	23.115	1.3766	.13134

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-18-D@5 Acquired: 10/26/2018 10:17:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.653	5.4693	.00102	.72570	.00342
Stddev	.031	.0129	.00002	.00156	.00013
%RSD	.20906	.23499	2.2520	.21429	3.8207

#1	14.631	5.4602	.00104	.72680	.00352
#2	14.674	5.4784	.00101	.72460	.00333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00154	18.80	-.00513	.00433	1.3522
Stddev	.00034	.11	.00036	.00193	.0052
%RSD	21.942	.5714	7.0465	44.465	.38448

#1	-.00130	18.72	-.00488	.00297	1.3559
#2	-.00178	18.87	-.00539	.00570	1.3486

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01007	1.3407	2.1563	-.00047	.03150
Stddev	.00049	.0000	.0004	.00119	.00039
%RSD	4.8415	.00313	.01983	250.56	1.2441

#1	.00973	1.3407	2.1566	-.00131	.03178
#2	.01042	1.3407	2.1560	.00037	.03122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-18-D@5 Acquired: 10/26/2018 10:17:29 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00263**
 Stddev .00115
 %RSD 43.777

#1 **.00344**
 #2 **.00182**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2433.2	1601.8	47634.	3901.2
Stddev	3.3	1.3	42.	2.4
%RSD	.13397	.07822	.08877	.06145

#1	2430.9	1602.7	47664.	3899.5
#2	2435.5	1600.9	47604.	3902.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.159%	96.374%	99.766%	105.53%
Range				

Sample Name: 480-143842-D-9-B Acquired: 10/26/2018 10:21:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.04939	.00064	.16984	.04592
Stddev	.00013	.00729	.00418	.00024	.00002
%RSD	46.137	14.766	649.10	.14144	.05108

#1	-.00037	.05454	.00360	.16967	.04590
#2	-.00019	.04423	-.00231	.17001	.04594

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	117.97	.00010	-.0050	.00017
Stddev	.00005	.40	.00012	.0180	.00008
%RSD	116.39	.33650	127.83	359.1	45.188

#1	.00008	118.25	.00019	-.0177	.00012
#2	.00001	117.69	.00001	.0077	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00179	.12599	3.3475	.00409
Stddev	.00004	.00024	.00212	.0383	.00096
%RSD	5.5925	13.227	1.6861	1.1433	23.388

#1	.00077	.00162	.12449	3.3204	.00341
#2	.00083	.00196	.12749	3.3745	.00476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-D-9-B Acquired: 10/26/2018 10:21:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.701	.05434	.00059	146.02	.00270
Stddev	.012	.00006	.00001	.52	.00008
%RSD	.03896	.11658	1.3497	.35920	2.8512

#1	30.710	.05439	.00060	146.39	.00276
#2	30.693	.05430	.00059	145.65	.00265

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	5.772	-.00111	-.00348	6.4384
Stddev	.00074	.003	.00213	.00029	.0098
%RSD	588.46	.0473	191.87	8.2385	.15283

#1	.00040	5.770	.00040	-.00328	6.4315
#2	-.00065	5.774	-.00262	-.00369	6.4454

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00168	.20537	.00161	.00007	-.00010
Stddev	.00069	.00063	.00007	.00010	.00056
%RSD	40.700	.30608	4.5127	134.17	576.91

#1	.00217	.20582	.00166	.00000	.00030
#2	.00120	.20493	.00156	.00014	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-D-9-B Acquired: 10/26/2018 10:21:31 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01291**
 Stddev .00028
 %RSD 2.1483

#1 **.01271**
 #2 **.01310**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2520.1	1493.5	44726.	3598.0
Stddev	.8	.8	39.	13.3
%RSD	.03300	.05070	.08668	.36972

#1	2520.7	1494.1	44754.	3588.5
#2	2519.5	1493.0	44699.	3607.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.198%	89.861%	93.676%	97.332%
Range				

Sample Name: 480-143803-C-4-A Acquired: 10/26/2018 10:25:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.05684	-.00044	.03240	.03960
Stddev	.00027	.00506	.00078	.00031	.00011
%RSD	55.511	8.9111	178.45	.96546	.27163

#1	-.00067	.05326	.00011	.03262	.03967
#2	-.00029	.06042	-.00099	.03218	.03952

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	24.747	.00015	.0041	.01150
Stddev	.00003	.104	.00006	.0026	.00006
%RSD	111.05	.42039	43.205	63.18	.48823

#1	.00001	24.674	.00010	.0059	.01146
#2	.00005	24.821	.00019	.0023	.01154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00183	13.018	2.5590	.00156
Stddev	.00006	.00035	.045	.0054	.00066
%RSD	130.42	19.170	.34293	.21017	42.464

#1	-.00000	.00158	12.986	2.5552	.00109
#2	-.00008	.00208	13.049	2.5628	.00203

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143803-C-4-A Acquired: 10/26/2018 10:25:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	13.631	1.9192	-.00010	10.173	.00146
Stddev	.036	.0014	.00004	.061	.00029
%RSD	.26083	.07340	43.762	.59857	20.027

#1	13.656	1.9202	-.00007	10.130	.00126
#2	13.606	1.9182	-.00013	10.216	.00167

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	47.18	-.00290	-.00222	3.6209
Stddev	.00069	.13	.00057	.00171	.0260
%RSD	200.76	.2798	19.524	76.689	.71850

#1	.00014	47.27	-.00330	-.00102	3.6026
#2	-.00083	47.08	-.00250	-.00343	3.6393

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.11143	.00034	-.00076	.00005
Stddev	.00088	.00041	.00001	.00059	.00012
%RSD	298.11	.36948	3.8535	77.628	228.97

#1	-.00033	.11113	.00033	-.00034	.00014
#2	.00092	.11172	.00035	-.00118	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143803-C-4-A Acquired: 10/26/2018 10:25:25 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01803**
 Stddev .00093
 %RSD 5.1776

#1 **.01737**
 #2 **.01869**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2765.9	1571.4	46884.	3681.2
Stddev	1.2	1.1	31.	27.4
%RSD	.04470	.06829	.06571	.74378

#1	2765.0	1570.6	46862.	3700.6
#2	2766.7	1572.1	46906.	3661.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.799%	94.544%	98.195%	99.585%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 10:29:14 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47717	23.357	.47540	.47119	.47617	.46239	24.004	.49952
Stddev	.00050	.192	.00126	.00153	.00345	.00267	.143	.00164
%RSD	.10419	.82348	.26450	.32458	.72355	.57803	.59496	.32854
#1	.47752	23.493	.47628	.47011	.47860	.46428	24.105	.49836
#2	.47681	23.221	.47451	.47227	.47373	.46050	23.903	.50068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035	.47309	.47481	.47347	23.414	23.242	.46486	23.285
Stddev	.0144	.00026	.00134	.00093	.108	.077	.00138	.009
%RSD	414.9	.05503	.28305	.19610	.45985	.33178	.29760	.03789
#1	.0137	.47328	.47576	.47281	23.491	23.297	.46584	23.291
#2	-.0067	.47291	.47386	.47412	23.338	23.188	.46388	23.279

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48041	.48380	22.896	.45919	.47846	25.12	.48293	.47796
Stddev	.00061	.00050	.061	.00083	.00032	.10	.00160	.00759
%RSD	.12642	.10371	.26657	.18045	.06693	.4120	.33204	1.5876
#1	.48084	.48345	22.939	.45978	.47869	25.04	.48180	.47260
#2	.47998	.48416	22.853	.45861	.47824	25.19	.48407	.48333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 10:29:14 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.951	.49089	.47182	.47217	.45551	.46978	.47521
Stddev	.026	.00144	.00253	.00125	.00111	.00360	.00390
%RSD	.10784	.29265	.53626	.26485	.24260	.76537	.81979
#1	23.969	.48988	.47361	.47129	.45473	.47232	.47797
#2	23.932	.49191	.47003	.47306	.45629	.46724	.47246

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2693.0	1552.6	46481.	3635.1
Stddev	2.0	3.8	242.	18.1
%RSD	.07366	.24559	.52171	.49845
#1	2691.6	1555.3	46309.	3622.2
#2	2694.4	1549.9	46652.	3647.9

Sample Name: CCB-4957862 Acquired: 10/26/2018 10:32:57 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.00588	-.00006	.00021	.00000	.00003	-.00153	-.00001
Stddev	.00015	.02127	.00144	.00018	.00001	.00001	.00018	.00001
%RSD	37.014	361.99	2424.1	86.451	508.58	29.402	11.567	169.77

#1	-.00031	.02092	.00096	.00008	-.00000	.00004	-.00140	.00000
#2	-.00053	-.00917	-.00108	.00034	.00001	.00003	-.00165	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0139	-.00016	-.00003	-.00039	.00058	-.02894	.00051	.00021
Stddev	.0072	.00004	.00018	.00034	.00079	.00225	.00051	.00064
%RSD	51.94	23.939	528.75	87.736	136.57	7.7749	99.863	301.61

#1	.0088	-.00014	-.00016	-.00015	.00113	-.03053	.00015	-.00024
#2	.0190	-.00019	.00009	-.00063	.00002	-.02735	.00088	.00066

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00065	-.02720	-.00024	-.00124	.0007	-.00021	-.00316
Stddev	.00000	.00002	.00126	.00013	.00000	.0009	.00139	.00063
%RSD	13.440	2.9865	4.6505	53.099	.27172	128.6	655.15	19.994

#1	.00003	.00064	-.02809	-.00033	-.00124	.0013	.00077	-.00361
#2	.00002	.00066	-.02631	-.00015	-.00125	.0001	-.00119	-.00272

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 10:32:57 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00424	.00108	-.00002	.00015	-.00047	.00002	-.00021
Stddev	.00054	.00021	.00000	.00020	.00053	.00004	.00014
%RSD	12.823	19.080	21.773	136.61	112.59	190.24	67.386

#1	-.00385	.00093	-.00001	.00001	-.00010	-.00001	-.00031
#2	-.00462	.00122	-.00002	.00029	-.00085	.00005	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2866.6	1598.7	48101.	3668.4
Stddev	1.8	3.6	216.	12.7
%RSD	.06334	.22774	.44896	.34591

#1	2867.9	1596.2	47949.	3659.4
#2	2865.3	1601.3	48254.	3677.4

Sample Name: CCVL-4954076 Acquired: 10/26/2018 10:36:50 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00554	.19739	.01388	.01938	.00200	.00196	.50540	.00209
Stddev	.00001	.00671	.00094	.00003	.00000	.00002	.00113	.00003
%RSD	.15149	3.4011	6.7431	.16870	.00882	.94260	.22405	1.2585
#1	.00554	.19264	.01322	.01936	.00200	.00195	.50460	.00211
#2	.00553	.20213	.01455	.01940	.00200	.00197	.50620	.00207

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	.00385	.00395	.00902	.04802	.42460	.02752	.19748
Stddev	.0040	.00000	.00021	.00026	.00037	.01145	.00041	.00019
%RSD	911.8	.11739	5.2160	2.8532	.77287	2.6969	1.4880	.09394
#1	-.0033	.00385	.00410	.00884	.04775	.43270	.02781	.19735
#2	.0024	.00385	.00381	.00920	.04828	.41650	.02723	.19761

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00277	.00940	.86838	.00933	.01054	.1999	.01824	.02151
Stddev	.00007	.00015	.00830	.00004	.00084	.0024	.00168	.00057
%RSD	2.5405	1.5785	.95611	.44529	7.9394	1.190	9.2210	2.6576
#1	.00282	.00951	.87426	.00935	.00994	.1982	.01705	.02192
#2	.00272	.00930	.86251	.00930	.01113	.2016	.01943	.02111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 10:36:50 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44488	.00903	.00470	.00444	.01720	.00483	.01038
Stddev	.00540	.00030	.00003	.00020	.00002	.00017	.00003
%RSD	1.2147	3.2821	.73332	4.4061	.10316	3.5754	.33468
#1	.44106	.00924	.00468	.00430	.01721	.00496	.01040
#2	.44870	.00882	.00473	.00458	.01719	.00471	.01035

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2849.3	1596.7	47838.	3672.4
Stddev	.7	3.1	55.	6.6
%RSD	.02432	.19415	.11507	.17986
#1	2848.8	1598.9	47876.	3667.7
#2	2849.8	1594.5	47799.	3677.1

Sample Name: 480-143844-C-1-A@2 Acquired: 10/26/2018 10:40:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	51.052	.01346	.12585	.41032
Stddev	.00009	.110	.00405	.00049	.00025
%RSD	3037.2	.21463	30.089	.39310	.06049

#1	-.00007	51.130	.01633	.12550	.41014
#2	.00006	50.975	.01060	.12620	.41049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00591	613.85	.00080	.1513	.01042
Stddev	.00006	2.14	.00003	.0034	.00009
%RSD	1.0757	.34872	4.2832	2.265	.84137

#1	.00596	612.33	.00082	.1489	.01036
#2	.00587	615.36	.00077	.1538	.01048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04117	.03144	31.261	3.5670	.06520
Stddev	.00044	.00010	.019	.0367	.00016
%RSD	1.0673	.32455	.05941	1.0299	.24978

#1	.04086	.03136	31.248	3.5930	.06531
#2	.04148	.03151	31.274	3.5411	.06508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143844-C-1-A@2 Acquired: 10/26/2018 10:40:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	46.783	2.0786	.00473	1.9502	.02639
Stddev	.134	.0073	.00011	.0088	.00028
%RSD	.28630	.34923	2.3395	.44932	1.0594

#1	46.688	2.0734	.00465	1.9440	.02619
#2	46.877	2.0837	.00480	1.9563	.02659

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10184	21.95	-.00521	-.00006	3.9379
Stddev	.00003	.02	.00179	.00028	.0366
%RSD	.02950	.1006	34.292	432.92	.92929

#1	.10182	21.96	-.00395	.00013	3.9120
#2	.10186	21.93	-.00648	-.00026	3.9638

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01637	1.7587	2.0072	-.00210	.04443
Stddev	.00144	.0014	.0037	.00047	.00021
%RSD	8.8281	.08154	.18549	22.510	.46974

#1	.01535	1.7597	2.0046	-.00176	.04429
#2	.01739	1.7577	2.0099	-.00243	.04458

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143844-C-1-A@2 Acquired: 10/26/2018 10:40:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.41505**
 Stddev .00269
 %RSD .64896

#1 **.41314**
 #2 **.41695**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2329.5	1538.5	46424.	3823.8
Stddev	3.8	1.5	107.	2.4
%RSD	.16463	.09792	.23111	.06177

#1	2326.8	1537.5	46500.	3822.1
#2	2332.2	1539.6	46349.	3825.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.527%	92.568%	97.232%	103.44%
Range				

Sample Name: 480-143598-A-4-D@5 Acquired: 10/26/2018 10:44:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	34.402	.01432	.01276	.29800
Stddev	.00016	.098	.00098	.00002	.00008
%RSD	26.910	.28588	6.8541	.16460	.02542

#1	-.00072	34.333	.01502	.01277	.29806
#2	-.00049	34.472	.01363	.01274	.29795

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00178	3.9855	.00025	.1005	.02617
Stddev	.00012	.0128	.00004	.0013	.00003
%RSD	6.6253	.32198	13.982	1.271	.12055

#1	.00186	3.9946	.00023	.1014	.02615
#2	.00170	3.9764	.00028	.0996	.02619

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04227	.06176	66.398	4.7229	.06022
Stddev	.00060	.00049	.032	.0015	.00051
%RSD	1.4269	.78872	.04877	.03260	.85301

#1	.04185	.06210	66.421	4.7240	.05986
#2	.04270	.06141	66.375	4.7218	.06059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143598-A-4-D@5 Acquired: 10/26/2018 10:44:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.154	2.4969	.00061	.34524	.05275
Stddev	.011	.0029	.00015	.00568	.00056
%RSD	.08891	.11538	23.985	1.6440	1.0664

#1	12.162	2.4990	.00072	.34123	.05235
#2	12.146	2.4949	.00051	.34926	.05315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03881	.0551	-.00722	-.00298	1.5405
Stddev	.00006	.0017	.00075	.00014	.0197
%RSD	.15771	3.033	10.379	4.8541	1.2773

#1	.03877	.0563	-.00669	-.00288	1.5544
#2	.03886	.0539	-.00775	-.00308	1.5266

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00797	.02520	.18078	.00020	.04722
Stddev	.00059	.00009	.00035	.00070	.00013
%RSD	7.3842	.33789	.19600	357.95	.26500

#1	.00839	.02526	.18103	-.00030	.04713
#2	.00756	.02514	.18053	.00069	.04731

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143598-A-4-D@5 Acquired: 10/26/2018 10:44:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.18562**
 Stddev .00167
 %RSD .89910

#1 **.18444**
 #2 **.18680**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2736.0	1633.4	48590.	3783.7
Stddev	1.1	.9	78.	3.6
%RSD	.04097	.05700	.15991	.09566

#1	2736.8	1632.8	48645.	3781.1
#2	2735.2	1634.1	48535.	3786.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.753%	98.278%	101.77%	102.36%
Range				

Sample Name: MB 480-440995/1-A Acquired: 10/26/2018 10:48:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00382	.00014	.00057	.00004
Stddev	.00026	.01621	.00121	.00025	.00000
%RSD	320.11	424.41	845.81	44.053	6.8592

#1	-.00010	-.00764	.00100	.00075	.00005
#2	.00027	.01528	-.00071	.00039	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.01450	-.00021	-.0189	-.00003
Stddev	.00002	.00288	.00003	.0068	.00001
%RSD	46.182	19.840	16.184	35.87	17.833

#1	.00006	.01653	-.00024	-.0141	-.00004
#2	.00003	.01247	-.00019	-.0237	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00017	.00381	-.03658	.00043
Stddev	.00011	.00007	.00205	.01293	.00061
%RSD	115.27	41.481	53.827	35.340	139.67

#1	-.00002	-.00012	.00236	-.02744	.00001
#2	-.00017	-.00022	.00526	-.04572	.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440995/1-A Acquired: 10/26/2018 10:48:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00190	-.00011	.00003	-.02704	-.00017
Stddev	.00251	.00001	.00015	.00434	.00001
%RSD	132.06	11.203	547.09	16.043	8.4766

#1	.00013	-.00010	.00013	-.03010	-.00016
#2	.00368	-.00012	-.00008	-.02397	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.0049	-.00211	-.00048	-.05035
Stddev	.00032	.0006	.00011	.00005	.01272
%RSD	162.88	12.80	5.1729	11.189	25.255

#1	-.00042	.0045	-.00204	-.00044	-.05934
#2	.00003	.0054	-.00219	-.00051	-.04136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00009	.00012	-.00010	.00007
Stddev	.00002	.00004	.00037	.00022	.00035
%RSD	9.7054	40.292	308.11	216.51	541.21

#1	.00023	.00011	-.00014	.00005	-.00018
#2	.00026	.00006	.00038	-.00025	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440995/1-A Acquired: 10/26/2018 10:48:24 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00253**
 Stddev .00028
 %RSD 11.133

#1 **.00273**
 #2 **.00233**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2856.7	1605.5	48062.	3706.6
Stddev	5.2	4.8	1.	11.5
%RSD	.18123	.30023	.00222	.31100

#1	2860.3	1608.9	48061.	3714.7
#2	2853.0	1602.1	48062.	3698.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.978%	96.598%	100.66%	100.27%
Range				

Sample Name: LCS 480-440995/2-A Acquired: 10/26/2018 10:52:14 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04942	9.8359	.20545	.20423	.19976
Stddev	.00028	.0432	.00243	.00012	.00067
%RSD	.57429	.43896	1.1840	.05637	.33486

#1	.04922	9.8054	.20717	.20432	.19928
#2	.04962	9.8664	.20373	.20415	.20023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20104	10.028	.21336	.0180	.19510
Stddev	.00039	.015	.00021	.0108	.00009
%RSD	.19285	.15216	.09624	60.00	.04457

#1	.20132	10.039	.21350	.0256	.19503
#2	.20077	10.017	.21321	.0103	.19516

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20018	.19268	9.9026	9.4437	.19006
Stddev	.00097	.00106	.0311	.0187	.00058
%RSD	.48494	.55060	.31426	.19786	.30364

#1	.20087	.19193	9.9246	9.4305	.18965
#2	.19949	.19343	9.8806	9.4569	.19046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440995/2-A Acquired: 10/26/2018 10:52:14 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9748	.19682	.19814	9.3186	.19884
Stddev	.0154	.00031	.00027	.0052	.00048
%RSD	.15441	.15978	.13861	.05597	.24284

#1	9.9639	.19660	.19795	9.3223	.19918
#2	9.9857	.19704	.19834	9.3149	.19850

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20068	10.53	.20055	.20013	9.5575
Stddev	.00055	.01	.00163	.00031	.0056
%RSD	.27410	.1268	.81496	.15648	.05850

#1	.20107	10.52	.19940	.19991	9.5615
#2	.20029	10.54	.20171	.20035	9.5536

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20383	.19399	.19522	.19422	.19533
Stddev	.00029	.00012	.00167	.00165	.00021
%RSD	.14243	.06349	.85717	.84745	.10689

#1	.20363	.19408	.19403	.19538	.19518
#2	.20404	.19390	.19640	.19306	.19548

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440995/2-A Acquired: 10/26/2018 10:52:14 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21284**
 Stddev .00094
 %RSD .44189

#1 **.21218**
 #2 **.21351**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2755.4	1573.6	46955.	3680.3
Stddev	5.1	3.8	159.	15.4
%RSD	.18353	.24065	.33780	.41930

#1	2759.0	1576.3	47067.	3669.4
#2	2751.9	1570.9	46843.	3691.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.435%	94.678%	98.343%	99.561%
Range				

Sample Name: 480-143169-M-1-B Acquired: 10/26/2018 10:55:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.01909	-.00314	.05769	.14299
Stddev	.00045	.01243	.00078	.00025	.00080
%RSD	101.57	65.087	24.896	.43817	.55667

#1	-.00013	.01031	-.00369	.05787	.14355
#2	-.00077	.02788	-.00258	.05752	.14242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	135.38	.00028	.0246	-.00036
Stddev	.00000	.30	.00000	.0032	.00015
%RSD	2.8362	.21793	.59201	12.95	40.736

#1	.00004	135.59	.00028	.0268	-.00026
#2	.00005	135.17	.00028	.0223	-.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00028	.06963	1.1909	.00341
Stddev	.00028	.00013	.00196	.0077	.00042
%RSD	38.872	47.379	2.8218	.64498	12.254

#1	.00093	.00037	.07102	1.1855	.00311
#2	.00053	.00018	.06824	1.1963	.00370

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-B Acquired: 10/26/2018 10:55:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	88.276	.01218	.00046	34.514	.00064
Stddev	.031	.00005	.00012	.086	.00006
%RSD	.03465	.38786	25.160	.25002	9.1596

#1	88.298	.01215	.00038	34.575	.00068
#2	88.255	.01222	.00055	34.453	.00060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	31.91	-.00265	-.00510	10.103
Stddev	.00089	.06	.00147	.00110	.001
%RSD	108.31	.1799	55.267	21.628	.00988

#1	-.00145	31.95	-.00369	-.00588	10.103
#2	-.00019	31.87	-.00162	-.00432	10.102

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.08455	.00053	.00073	-.00040
Stddev	.00009	.00022	.00023	.00016	.00038
%RSD	76.274	.25483	42.323	22.423	95.113

#1	-.00017	.08470	.00037	.00085	-.00013
#2	-.00005	.08439	.00069	.00061	-.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-B Acquired: 10/26/2018 10:55:53 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00295**
 Stddev .00041
 %RSD 14.012

#1 **.00324**
 #2 **.00266**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2552.7	1493.9	45034.	3609.2
Stddev	2.9	.3	306.	19.1
%RSD	.11459	.01791	.68011	.52969

#1	2550.7	1494.1	44818.	3595.6
#2	2554.8	1493.7	45251.	3622.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.340%	89.884%	94.320%	97.635%
Range				

Sample Name: 480-143169-M-1-Bsd@5 Acquired: 10/26/2018 10:59:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.01127	-.00068	.01085	.02833
Stddev	.00004	.00553	.00076	.00008	.00010
%RSD	18.059	49.089	110.82	.72698	.34198

#1	-.00023	.01518	-.00015	.01079	.02840
#2	-.00017	.00735	-.00122	.01090	.02827

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	27.114	.00003	-.0011	-.00023
Stddev	.00005	.038	.00016	.0283	.00005
%RSD	146.47	.14013	539.88	2653.	22.320

#1	.00007	27.140	-.00009	-.0211	-.00026
#2	-.00000	27.087	.00015	.0190	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.00010	.01431	.19614	.00092
Stddev	.00003	.00011	.00096	.01432	.00017
%RSD	30.002	102.11	6.6935	7.2986	18.738

#1	.00009	.00018	.01363	.20626	.00105
#2	.00013	.00003	.01499	.18601	.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-Bsd@5 Acquired: 10/26/2018 10:59:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.989	.00224	.00012	6.6109	-.00011
Stddev	.023	.00004	.00000	.0245	.00026
%RSD	.13708	1.8216	2.6989	.37121	241.10

#1	17.005	.00227	.00013	6.6282	.00008
#2	16.972	.00221	.00012	6.5935	-.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	5.954	-.00161	-.00514	1.9567
Stddev	.00022	.066	.00050	.00225	.0119
%RSD	191.39	1.107	30.929	43.751	.60952

#1	-.00004	6.000	-.00126	-.00355	1.9482
#2	.00027	5.907	-.00197	-.00673	1.9651

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.01699	-.00002	-.00072	.00026
Stddev	.00027	.00003	.00011	.00008	.00038
%RSD	196.36	.15626	691.69	11.734	144.18

#1	.00032	.01701	-.00010	-.00077	.00053
#2	-.00005	.01698	.00006	-.00066	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-Bsd@5 Acquired: 10/26/2018 10:59:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00044**
 Stddev .00060
 %RSD 136.72

#1 **.00087**
 #2 **.00001**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2752.4	1567.5	46711.	3601.7
Stddev	2.2	.6	126.	7.3
%RSD	.07836	.03831	.26891	.20291

#1	2750.8	1567.1	46622.	3596.5
#2	2753.9	1567.9	46800.	3606.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.327%	94.310%	97.832%	97.432%
Range				

Sample Name: 480-143169-M-1-Bpds Acquired: 10/26/2018 11:03:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08277	16.359	.34143	.39894	.45381
Stddev	.00044	.298	.00252	.00170	.00098
%RSD	.53469	1.8194	.73945	.42639	.21611

#1	.08245	16.149	.34321	.39774	.45311
#2	.08308	16.570	.33964	.40014	.45450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.32900	144.31	.34408	.0089	.32079
Stddev	.00497	2.43	.00089	.0164	.00005
%RSD	1.5097	1.6861	.25749	183.8	.01515

#1	.32549	142.59	.34345	-.0027	.32083
#2	.33251	146.04	.34471	.0206	.32076

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.31913	.31985	15.959	17.703	.33573
Stddev	.00083	.00025	.261	.303	.00595
%RSD	.26062	.07752	1.6373	1.7113	1.7723

#1	.31971	.32002	15.774	17.489	.33152
#2	.31854	.31967	16.144	17.917	.33994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-Bpds Acquired: 10/26/2018 11:03:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Na8183
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	818.326 { 41}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	98.995	.32089	.32285	49.249	50.050
Stddev	.033	.00004	.00016	.803	1.062
%RSD	.03358	.01212	.04801	1.6311	2.1226

#1	99.019	.32086	.32274	48.681	49.299
#2	98.972	.32092	.32296	49.817	50.801

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33249	.34893	47.73	.34420	.33815
Stddev	.00046	.00124	.00	.00064	.00136
%RSD	.13858	.35527	.0102	.18550	.40087

#1	.33216	.34806	47.73	.34375	.33719
#2	.33281	.34981	47.73	.34465	.33910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.256	.33950	.40123	.32316	.32327
Stddev	.504	.00108	.00652	.00035	.00082
%RSD	1.9947	.31741	1.6250	.10866	.25502

#1	24.900	.34026	.39662	.32291	.32269
#2	25.612	.33874	.40584	.32341	.32386

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-Bpds Acquired: 10/26/2018 11:03:29 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	.32744	.32658
Stddev	.00112	.00081
%RSD	.34220	.24720

#1	.32823	.32601
#2	.32665	.32715

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2501.5	1493.1	44826.	3562.5
Stddev	4.0	4.0	39.	53.5
%RSD	.15898	.26539	.08744	1.5020

#1	2504.3	1495.9	44854.	3600.3
#2	2498.7	1490.3	44798.	3524.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.548%	89.837%	93.884%	96.373%
Range				

Sample Name: 480-143169-M-1-C MS Acquired: 10/26/2018 11:07:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05150	10.021	.21246	.27153	.34798
Stddev	.00058	.019	.00047	.00019	.00039
%RSD	1.1220	.19416	.22049	.07052	.11232

#1	.05109	10.035	.21279	.27139	.34826
#2	.05191	10.007	.21213	.27166	.34770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20229	148.02	.22155	.0072	.19870
Stddev	.00065	.43	.00015	.0009	.00044
%RSD	.32101	.29230	.06833	12.44	.22089

#1	.20275	148.33	.22145	.0078	.19901
#2	.20183	147.71	.22166	.0066	.19839

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19788	.19752	9.7982	11.496	.20797
Stddev	.00033	.00027	.0406	.002	.00072
%RSD	.16874	.13810	.41453	.01867	.34436

#1	.19765	.19772	9.8269	11.494	.20847
#2	.19812	.19733	9.7694	11.497	.20746

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-C MS Acquired: 10/26/2018 11:07:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	100.39	.20546	.20328	44.958	.20186
Stddev	.19	.00058	.00010	.151	.00005
%RSD	.18816	.28199	.04797	.33528	.02375

#1	100.25	.20505	.20334	45.064	.20189
#2	100.52	.20587	.20321	44.851	.20183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20648	44.01	.20862	.20955	19.048
Stddev	.00147	.18	.00186	.00018	.091
%RSD	.71191	.4125	.89192	.08725	.47756

#1	.20544	43.88	.20994	.20968	19.112
#2	.20752	44.13	.20731	.20943	18.983

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21347	.27883	.19776	.19692	.19740
Stddev	.00014	.00062	.00017	.00001	.00066
%RSD	.06586	.22282	.08827	.00323	.33353

#1	.21357	.27927	.19788	.19691	.19693
#2	.21337	.27839	.19764	.19692	.19787

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-C MS Acquired: 10/26/2018 11:07:13 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20677**
 Stddev .00076
 %RSD .36877

#1 **.20623**
 #2 **.20731**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2495.6	1482.5	44685.	3601.6
Stddev	1.2	3.5	109.	24.2
%RSD	.04841	.23670	.24467	.67252

#1	2496.5	1485.0	44762.	3584.5
#2	2494.8	1480.1	44607.	3618.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.341%	89.199%	93.589%	97.431%
Range				

Sample Name: 480-143169-M-1-D MSD Acquired: 10/26/2018 11:10:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04970	9.7772	.20778	.25770	.33011
Stddev	.00061	.0542	.00545	.00055	.00170
%RSD	1.2221	.55406	2.6228	.21509	.51504

#1	.04927	9.8155	.21164	.25809	.33131
#2	.05013	9.7389	.20393	.25731	.32890

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19379	135.94	.21477	-.0006	.19276
Stddev	.00017	.41	.00028	.0000	.00036
%RSD	.08635	.29932	.13114	7.200	.18500

#1	.19391	136.23	.21497	-.0006	.19302
#2	.19368	135.65	.21457	-.0006	.19251

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19194	.19004	9.4521	11.090	.19925
Stddev	.00065	.00017	.0500	.019	.00022
%RSD	.33711	.09141	.52919	.17557	.10821

#1	.19240	.19017	9.4875	11.077	.19940
#2	.19148	.18992	9.4168	11.104	.19910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-D MSD Acquired: 10/26/2018 11:10:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	92.927	.19943	.19449	41.921	.19560
Stddev	.064	.00051	.00034	.143	.00004
%RSD	.06900	.25489	.17483	.34158	.02136

#1	92.882	.19907	.19473	42.022	.19557
#2	92.973	.19979	.19425	41.820	.19563

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20124	41.12	.20055	.20168	8.5375
Stddev	.00164	.02	.00019	.00193	.0069
%RSD	.81490	.0503	.09232	.95461	.08096

#1	.20240	41.10	.20042	.20032	8.5424
#2	.20008	41.13	.20068	.20304	8.5326

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20387	.26774	.19119	.19081	.19152
Stddev	.00068	.00109	.00024	.00044	.00082
%RSD	.33318	.40893	.12708	.23313	.42841

#1	.20435	.26851	.19102	.19050	.19211
#2	.20339	.26696	.19137	.19113	.19094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-1-D MSD Acquired: 10/26/2018 11:10:51 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20501**
 Stddev .00190
 %RSD .92496

#1 **.20367**
 #2 **.20635**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2525.3	1495.9	45068.	3614.2
Stddev	.4	1.3	7.	23.2
%RSD	.01607	.08976	.01469	.64242

#1	2525.6	1496.8	45073.	3597.8
#2	2525.1	1494.9	45063.	3630.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.382%	90.000%	94.391%	97.771%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 11:14:32 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47800	23.451	.47550	.47131	.48208	.46247	23.997	.49856
Stddev	.00099	.156	.00025	.00078	.00278	.00185	.107	.00033
%RSD	.20729	.66387	.05290	.16540	.57761	.39972	.44605	.06552
#1	.47870	23.561	.47568	.47076	.48011	.46378	24.072	.49832
#2	.47730	23.340	.47532	.47186	.48405	.46116	23.921	.49879

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0056	.47350	.47737	.47564	23.418	23.328	.46685	23.333
Stddev	.0011	.00005	.00064	.00089	.067	.111	.00050	.006
%RSD	19.06	.01082	.13346	.18749	.28816	.47390	.10756	.02361
#1	-.0048	.47353	.47692	.47501	23.465	23.406	.46720	23.330
#2	-.0063	.47346	.47782	.47627	23.370	23.249	.46649	23.337

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48149	.48522	22.982	.46123	.47843	25.31	.48523	.48052
Stddev	.00043	.00093	.035	.00028	.00073	.03	.00144	.00366
%RSD	.08891	.19139	.15065	.06134	.15187	.1232	.29710	.76226
#1	.48119	.48456	23.007	.46143	.47894	25.29	.48421	.47793
#2	.48179	.48588	22.958	.46103	.47791	25.33	.48624	.48311

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 11:14:32 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.041	.48945	.47327	.47186	.45723	.47385	.47793
Stddev	.037	.00315	.00049	.00110	.00037	.00193	.00018
%RSD	.15598	.64271	.10293	.23336	.08184	.40808	.03746
#1	24.015	.49167	.47361	.47108	.45750	.47248	.47805
#2	24.068	.48722	.47293	.47264	.45697	.47522	.47780

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2681.2	1546.3	46046.	3638.4
Stddev	.6	.8	103.	23.0
%RSD	.02193	.05473	.22312	.63307
#1	2680.8	1546.9	46119.	3622.1
#2	2681.6	1545.7	45974.	3654.6

Sample Name: CCB-4957862 Acquired: 10/26/2018 11:18:16 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.00669	-.00105	.00032	.00001	.00006	.00144	.00001
Stddev	.00049	.00737	.00072	.00006	.00000	.00006	.00209	.00004
%RSD	298.51	110.24	68.879	20.207	11.821	91.451	145.09	304.44

#1	-.00051	-.01190	-.00155	.00027	.00001	.00002	.00293	-.00002
#2	.00018	-.00147	-.00054	.00037	.00001	.00010	-.00004	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	-.00005	.00025	.00007	.00112	-.01175	-.00014	-.00145
Stddev	.0111	.00007	.00006	.00014	.00185	.02556	.00013	.00287
%RSD	931.7	132.38	22.827	193.42	165.97	217.63	91.779	197.72

#1	-.0066	-.00010	.00029	.00017	.00243	-.02982	-.00005	-.00348
#2	.0090	-.00000	.00021	-.00003	-.00019	.00633	-.00023	.00058

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00094	-.01198	-.00022	.00036	.0051	.00104	-.00039
Stddev	.00006	.00012	.00193	.00010	.00106	.0009	.00168	.00351
%RSD	243.86	12.868	16.088	43.460	297.94	16.93	161.37	906.58

#1	-.00002	.00086	-.01061	-.00015	-.00039	.0045	-.00015	.00209
#2	.00007	.00103	-.01334	-.00029	.00111	.0057	.00223	-.00287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 11:18:16 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00330	.00073	.00004	.00014	-.00016	-.00019	.00020
Stddev	.02459	.00023	.00001	.00006	.00112	.00011	.00001
%RSD	745.33	31.888	19.203	40.559	709.01	57.068	3.9951
#1	-.02069	.00090	.00005	.00010	.00063	-.00011	.00021
#2	.01409	.00057	.00004	.00018	-.00095	-.00026	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2852.7	1590.7	47982.	3672.8
Stddev	.4	2.9	20.	.8
%RSD	.01336	.18292	.04183	.02267
#1	2852.4	1592.7	47968.	3673.4
#2	2852.9	1588.6	47996.	3672.2

Sample Name: CCVL-4954076 Acquired: 10/26/2018 11:22:08 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00575	.19293	.01509	.01996	.00202	.00198	.50246	.00200
Stddev	.00050	.00943	.00224	.00046	.00000	.00007	.00123	.00002
%RSD	8.6951	4.8864	14.843	2.3034	.17663	3.3185	.24561	.98534
#1	.00540	.18626	.01667	.02028	.00202	.00202	.50333	.00199
#2	.00611	.19959	.01351	.01963	.00202	.00193	.50158	.00202

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	.00372	.00403	.00934	.04759	.41636	.02696	.20053
Stddev	.0086	.00004	.00004	.00025	.00192	.00877	.00072	.00004
%RSD	358.1	1.0347	.95338	2.6784	4.0423	2.1055	2.6600	.02204
#1	.0085	.00369	.00400	.00916	.04623	.41017	.02747	.20056
#2	-.0037	.00374	.00406	.00951	.04895	.42256	.02645	.20049

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00275	.00963	.88638	.00950	.00992	.2081	.01906	.02370
Stddev	.00009	.00005	.00254	.00005	.00058	.0009	.00002	.00134
%RSD	3.1837	.54137	.28623	.47556	5.8750	.4526	.08976	5.6444
#1	.00269	.00967	.88817	.00953	.01033	.2074	.01905	.02276
#2	.00281	.00959	.88459	.00947	.00951	.2088	.01907	.02465

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 11:22:08 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44135	.00989	.00473	.00437	.01770	.00457	.01079
Stddev	.01590	.00006	.00010	.00009	.00069	.00006	.00016
%RSD	3.6019	.55626	2.0842	1.9734	3.8878	1.3790	1.4945

#1	.43011	.00993	.00466	.00443	.01818	.00461	.01068
#2	.45259	.00985	.00480	.00431	.01721	.00452	.01091

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2830.6	1592.7	47654.	3666.0
Stddev	1.9	.1	69.	7.5
%RSD	.06859	.00341	.14555	.20323

#1	2832.0	1592.8	47605.	3671.2
#2	2829.2	1592.7	47703.	3660.7

Sample Name: 480-143169-M-2-B Acquired: 10/26/2018 11:26:00 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.02123	.00141	.01119	.17470
Stddev	.00001	.01237	.00273	.00009	.00018
%RSD	12.415	58.255	193.36	.78867	.10135

#1	-.00010	.01249	-.00052	.01125	.17457
#2	-.00009	.02998	.00334	.01113	.17482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	85.883	.00011	.0083	-.00038
Stddev	.00003	.165	.00013	.0034	.00021
%RSD	224.85	.19225	121.71	40.99	54.282

#1	.00004	85.999	.00001	.0059	-.00023
#2	-.00001	85.766	.00020	.0107	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00145	.00047	.02337	.89452	.00254
Stddev	.00020	.00024	.00056	.04120	.00002
%RSD	13.764	51.280	2.3866	4.6056	.91432

#1	.00159	.00030	.02298	.92365	.00252
#2	.00131	.00064	.02376	.86539	.00256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-2-B Acquired: 10/26/2018 11:26:00 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	48.230	.00021	.00008	6.7925	-.00008
Stddev	.024	.00004	.00004	.0394	.00005
%RSD	.04944	18.064	57.614	.58024	71.289

#1	48.213	.00018	.00005	6.8204	-.00004
#2	48.247	.00024	.00011	6.7646	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00126	11.77	-.00189	-.00272	9.2291
Stddev	.00001	.01	.00009	.00316	.0441
%RSD	.61506	.0966	4.4995	116.27	.47783

#1	-.00126	11.77	-.00195	-.00048	9.2602
#2	-.00127	11.78	-.00183	-.00496	9.1979

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00072	.07356	-.00002	-.00022	.00002
Stddev	.00030	.00037	.00003	.00024	.00014
%RSD	41.758	.50578	124.91	106.88	689.38

#1	-.00051	.07382	-.00000	-.00005	.00012
#2	-.00094	.07329	-.00004	-.00039	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143169-M-2-B Acquired: 10/26/2018 11:26:00 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00312**
 Stddev .00137
 %RSD 43.867

#1 **.00215**
 #2 **.00408**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2646.1	1525.9	45791.	3637.8
Stddev	3.3	4.2	179.	4.0
%RSD	.12598	.27296	.39003	.11047

#1	2648.4	1528.8	45664.	3635.0
#2	2643.7	1522.9	45917.	3640.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.606%	91.807%	95.905%	98.411%
Range				

Sample Name: 480-143133-J-1-B Acquired: 10/26/2018 11:29:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	6.5814	.00502	.07605	.09355
Stddev	.00022	.0233	.00146	.00064	.00018
%RSD	56.634	.35437	29.059	.84326	.19552

#1	-0.00023	6.5649	.00605	.07560	.09368
#2	-0.00054	6.5979	.00399	.07651	.09342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	135.05	.00071	.0087	.00588
Stddev	.00001	.15	.00004	.0058	.00004
%RSD	4.3772	.11092	5.6524	66.83	.72981

#1	.00030	134.95	.00068	.0129	.00585
#2	.00032	135.16	.00074	.0046	.00591

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00978	.00842	12.505	2.6653	.01078
Stddev	.00006	.00037	.013	.0259	.00028
%RSD	.61981	4.4000	.10640	.97071	2.5634

#1	.00974	.00869	12.495	2.6470	.01058
#2	.00983	.00816	12.514	2.6836	.01097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143133-J-1-B Acquired: 10/26/2018 11:29:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	48.329	1.7385	.00284	17.565	.02042
Stddev	.133	.0026	.00021	.071	.00023
%RSD	.27554	.14869	7.5077	.40140	1.1362

#1	48.235	1.7367	.00299	17.516	.02026
#2	48.423	1.7404	.00269	17.615	.02059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00404	F 132.5	-.00495	-.00041	12.412
Stddev	.00006	.0	.00104	.00111	.079
%RSD	1.3923	.0245	21.032	271.32	.63925

#1	.00408	132.5	-.00421	-.00120	12.468
#2	.00400	132.5	-.00569	.00038	12.356

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.26258	.11961	.00016	.01484
Stddev	.00091	.00112	.00009	.00086	.00055
%RSD	150.99	.42822	.07752	548.27	3.7109

#1	.00125	.26179	.11967	.00076	.01445
#2	-.00004	.26338	.11954	-.00045	.01523

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143133-J-1-B Acquired: 10/26/2018 11:29:48 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02499**
 Stddev .00165
 %RSD 6.6231

#1 **.02382**
 #2 **.02616**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2605.9	1525.0	46029.	3670.7
Stddev	3.1	3.7	2.	19.8
%RSD	.11857	.24565	.00434	.53876

#1	2608.1	1527.7	46027.	3684.7
#2	2603.7	1522.4	46030.	3656.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.200%	91.756%	96.403%	99.299%
Range				

Sample Name: 480-143133-J-2-B Acquired: 10/26/2018 11:33:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.11685	.00111	.16238	.06680
Stddev	.00059	.00581	.00036	.00137	.00025
%RSD	163.61	4.9754	32.056	.84097	.36829

#1	.00006	.12097	.00136	.16334	.06697
#2	-.00077	.11274	.00086	.16141	.06662

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	102.90	.00018	.0149	.00368
Stddev	.00001	.58	.00003	.0155	.00016
%RSD	17.207	.56570	14.696	104.0	4.3973

#1	-.00004	102.49	.00016	.0258	.00380
#2	-.00005	103.31	.00019	.0039	.00357

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00019	.37327	1.4272	.02862
Stddev	.00004	.00003	.00314	.0130	.00124
%RSD	23.123	16.166	.84015	.91067	4.3344

#1	.00021	.00017	.37105	1.4364	.02775
#2	.00015	.00021	.37548	1.4180	.02950

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143133-J-2-B Acquired: 10/26/2018 11:33:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	42.724	.89687	.00061	50.711	.00843
Stddev	.016	.00055	.00016	.202	.00010
%RSD	.03845	.06104	26.181	.39923	1.2428

#1	42.736	.89648	.00049	50.568	.00850
#2	42.713	.89726	.00072	50.855	.00836

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00150	34.72	-.00259	-.00697	12.905
Stddev	.00108	.14	.00048	.00012	.054
%RSD	72.026	.4138	18.465	1.7587	.42167

#1	-.00227	34.82	-.00225	-.00688	12.866
#2	-.00074	34.61	-.00293	-.00706	12.943

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.20531	.00145	.00024	-.00014
Stddev	.00041	.00105	.00001	.00040	.00023
%RSD	311.95	.51093	.75675	165.29	158.54

#1	.00042	.20457	.00146	-.00004	.00002
#2	-.00016	.20606	.00144	.00053	-.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143133-J-2-B Acquired: 10/26/2018 11:33:33 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01039**
 Stddev .00084
 %RSD 8.0594

#1 **.00979**
 #2 **.01098**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2590.0	1514.3	45485.	3639.9
Stddev	.4	3.0	117.	13.6
%RSD	.01577	.19905	.25688	.37441

#1	2590.3	1512.2	45567.	3649.5
#2	2589.7	1516.5	45402.	3630.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.644%	91.112%	95.264%	98.466%
Range				

Sample Name: 480-143133-J-3-B Acquired: 10/26/2018 11:37:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.02389	.00283	.02072	.10068
Stddev	.00021	.02011	.00187	.00030	.00006
%RSD	60.350	84.198	65.997	1.4439	.05930

#1	-.00020	.00967	.00415	.02093	.10064
#2	-.00050	.03811	.00151	.02050	.10072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	57.433	.00024	.0098	.00075
Stddev	.00006	.106	.00004	.0099	.00008
%RSD	167.67	.18536	16.680	100.7	10.970

#1	-.00001	57.358	.00021	.0168	.00069
#2	.00008	57.508	.00027	.0028	.00081

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00014	5.4044	.62508	.00795
Stddev	.00021	.00007	.0106	.02888	.00015
%RSD	133.63	52.742	.19559	4.6207	1.8745

#1	.00001	-.00019	5.3969	.60466	.00806
#2	.00031	-.00009	5.4119	.64550	.00785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143133-J-3-B Acquired: 10/26/2018 11:37:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.395	.30998	.00010	19.603	.00076
Stddev	.025	.00027	.00017	.030	.00008
%RSD	.10652	.08567	172.41	.15220	9.9792

#1	23.377	.30979	-.00002	19.582	.00071
#2	23.412	.31016	.00022	19.624	.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00049	32.74	-.00412	-.00490	11.389
Stddev	.00168	.11	.00050	.00126	.033
%RSD	342.90	.3452	12.096	25.665	.29021

#1	-.00167	32.82	-.00447	-.00579	11.366
#2	.00070	32.66	-.00376	-.00401	11.413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.14799	.00031	-.00018	.00005
Stddev	.00062	.00001	.00009	.00022	.00017
%RSD	1824.2	.00499	27.551	119.73	378.79

#1	.00048	.14798	.00025	-.00033	.00017
#2	-.00041	.14799	.00038	-.00003	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143133-J-3-B Acquired: 10/26/2018 11:37:20 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00652**
 Stddev .00063
 %RSD 9.6899

#1 **.00607**
 #2 **.00697**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2685.1	1552.6	46267.	3648.3
Stddev	.8	2.6	35.	1.5
%RSD	.03090	.16994	.07613	.04045

#1	2684.5	1550.7	46291.	3649.3
#2	2685.7	1554.4	46242.	3647.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.974%	93.411%	96.901%	98.693%
Range				

Sample Name: 480-143810-C-1-A Acquired: 10/26/2018 11:41:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.66236	.00427	.04501	.26203
Stddev	.00074	.00631	.00012	.00025	.00048
%RSD	254.59	.95340	2.8299	.56640	.18258

#1	.00023	.66682	.00436	.04483	.26236
#2	-.00081	.65789	.00418	.04519	.26169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	76.387	.00011	.0131	.00010
Stddev	.00006	.088	.00003	.0008	.00012
%RSD	259.37	.11581	27.060	6.045	121.23

#1	.00007	76.450	.00009	.0126	.00018
#2	-.00002	76.324	.00014	.0137	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00290	.00144	.63848	4.8601	.02190
Stddev	.00002	.00008	.00441	.0053	.00051
%RSD	.82629	5.5708	.69062	.10796	2.3222

#1	.00288	.00150	.63536	4.8638	.02226
#2	.00292	.00139	.64159	4.8564	.02154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-1-A Acquired: 10/26/2018 11:41:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.522	.00506	.00161	35.264	.00122
Stddev	.004	.00000	.00001	.053	.00023
%RSD	.03493	.02372	.59953	.15068	18.644

#1	10.520	.00506	.00160	35.227	.00139
#2	10.525	.00506	.00162	35.302	.00106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	9.013	-.00287	.00915	16.771
Stddev	.00068	.032	.00119	.00156	.245
%RSD	205.12	.3506	41.377	17.078	1.4597

#1	.00015	8.991	-.00371	.00805	16.944
#2	-.00081	9.035	-.00203	.01026	16.598

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.30602	.01583	.00052	.01529
Stddev	.00074	.00051	.00079	.00169	.00006
%RSD	279.47	.16821	5.0022	323.34	.41667

#1	-.00026	.30566	.01639	.00172	.01533
#2	.00079	.30639	.01527	-.00067	.01524

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-1-A Acquired: 10/26/2018 11:41:06 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00526**
 Stddev .00096
 %RSD 18.226

#1 **.00458**
 #2 **.00594**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.5	1543.8	46051.	3668.3
Stddev	4.6	4.9	11.	3.3
%RSD	.17207	.31492	.02282	.08894

#1	2670.7	1547.2	46044.	3670.6
#2	2664.2	1540.3	46059.	3666.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.357%	92.883%	96.451%	99.234%
Range				

Sample Name: 480-143810-C-2-A Acquired: 10/26/2018 11:44:54 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	.11085	.05271	.02503	1.3263
Stddev	.00016	.00421	.00166	.00012	.0004
%RSD	42.402	3.8005	3.1472	.48480	.02650

#1	-.00026	.10788	.05388	.02511	1.3261
#2	-.00049	.11383	.05154	.02494	1.3266

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	217.72	.00036	-.0224	.01798
Stddev	.00001	.90	.00008	.0155	.00006
%RSD	28.830	.41415	22.516	69.01	.31672

#1	.00004	217.08	.00030	-.0333	.01802
#2	.00006	218.35	.00041	-.0115	.01794

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.00864	21.195	4.4556	.01685
Stddev	.00004	.00004	.035	.0030	.00078
%RSD	14.859	.44133	.16445	.06777	4.6433

#1	-.00023	.00867	21.170	4.4534	.01629
#2	-.00028	.00861	21.219	4.4577	.01740

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-2-A Acquired: 10/26/2018 11:44:54 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.320	13.119	.00445	55.916	.00705
Stddev	.035	.139	.00014	.012	.00001
%RSD	.06188	1.0576	3.1151	.02056	.12694

#1	57.345	13.217	.00455	55.924	.00705
#2	57.295	13.021	.00435	55.908	.00704

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.1810	-.00581	-.00196	13.589
Stddev	.00023	.0034	.00064	.00043	.201
%RSD	34.503	1.869	11.041	22.165	1.4803

#1	.00050	.1833	-.00627	-.00227	13.731
#2	.00082	.1786	-.00536	-.00165	13.447

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00111	.97714	.00242	.00053	.00081
Stddev	.00013	.00047	.00014	.00014	.00024
%RSD	12.081	.04760	5.9581	26.939	29.684

#1	.00101	.97681	.00253	.00043	.00098
#2	.00120	.97747	.00232	.00063	.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-2-A Acquired: 10/26/2018 11:44:54 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03346**
 Stddev .00132
 %RSD 3.9568

#1 **.03440**
 #2 **.03253**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2505.9	1500.5	44590.	3618.1
Stddev	2.5	.1	208.	18.8
%RSD	.10009	.00488	.46544	.52016

#1	2504.2	1500.5	44443.	3631.4
#2	2507.7	1500.6	44736.	3604.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.703%	90.280%	93.389%	97.876%
Range				

Sample Name: 480-143810-C-3-A Acquired: 10/26/2018 11:48:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.66889	.00513	.04493	.25888
Stddev	.00007	.00122	.00005	.00020	.00032
%RSD	97.065	.18279	.95007	.44517	.12319

#1	-.00012	.66803	.00516	.04508	.25866
#2	-.00002	.66976	.00509	.04479	.25911

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	75.764	.00010	.0084	-.00013
Stddev	.00007	.130	.00001	.0025	.00008
%RSD	113.58	.17156	10.550	29.76	58.771

#1	.00001	75.672	.00011	.0066	-.00019
#2	.00010	75.856	.00009	.0101	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00315	.00114	.62522	4.8004	.02140
Stddev	.00027	.00025	.00282	.0777	.00038
%RSD	8.6585	21.981	.45107	1.6187	1.7897

#1	.00296	.00096	.62323	4.7454	.02113
#2	.00335	.00132	.62722	4.8553	.02167

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-3-A Acquired: 10/26/2018 11:48:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.447	.00439	.00150	34.889	.00124
Stddev	.023	.00003	.00013	.094	.00034
%RSD	.22152	.73251	8.5661	.26900	27.501

#1	10.431	.00442	.00141	34.823	.00148
#2	10.463	.00437	.00160	34.956	.00100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00160	8.960	-.00312	.00390	17.176
Stddev	.00070	.012	.00028	.00012	.160
%RSD	43.785	.1381	8.8312	3.0091	.93355

#1	-.00111	8.951	-.00293	.00382	17.289
#2	-.00210	8.969	-.00332	.00399	17.063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.30248	.01513	-.00020	.01523
Stddev	.00051	.00101	.00027	.00024	.00005
%RSD	251.00	.33323	1.7552	123.52	.33835

#1	-.00016	.30177	.01532	-.00002	.01519
#2	.00057	.30320	.01495	-.00037	.01527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-3-A Acquired: 10/26/2018 11:48:59 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00483**
 Stddev .00035
 %RSD 7.3501

#1 **.00458**
 #2 **.00508**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2657.2	1538.4	45918.	3669.8
Stddev	2.8	2.8	78.	.7
%RSD	.10437	.18469	.16949	.02011

#1	2659.1	1540.4	45973.	3669.3
#2	2655.2	1536.4	45863.	3670.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.995%	92.558%	96.172%	99.277%
Range				

Sample Name: 480-143810-C-4-A Acquired: 10/26/2018 11:52:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.02556	.00436	.04610	.15791
Stddev	.00012	.01540	.00044	.00003	.00039
%RSD	33.271	60.240	10.139	.07083	.24655

#1	-.00046	.01467	.00404	.04608	.15764
#2	-.00029	.03645	.00467	.04612	.15819

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	76.033	.00012	.0110	-.00035
Stddev	.00004	.023	.00002	.0194	.00011
%RSD	59.770	.03006	13.012	176.8	32.672

#1	.00010	76.049	.00011	.0246	-.00042
#2	.00004	76.016	.00013	-.0027	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00174	.00644	.01334	4.9014	.02032
Stddev	.00027	.00005	.00016	.0029	.00072
%RSD	15.304	.78461	1.1962	.05884	3.5635

#1	.00193	.00647	.01323	4.8994	.01981
#2	.00155	.00640	.01345	4.9035	.02084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-4-A Acquired: 10/26/2018 11:52:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.656	.00019	.00151	31.349	.00018
Stddev	.039	.00001	.00013	.057	.00007
%RSD	.36827	5.8988	8.6936	.18171	38.974

#1	10.684	.00019	.00160	31.389	.00013
#2	10.628	.00020	.00142	31.309	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	9.065	-.00442	.00103	15.001
Stddev	.00083	.008	.00146	.00067	.133
%RSD	171.24	.0860	32.988	64.885	.88829

#1	-.00107	9.071	-.00339	.00150	15.096
#2	.00010	9.060	-.00546	.00056	14.907

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.31474	.00022	.00023	.00897
Stddev	.00051	.00008	.00034	.00046	.00014
%RSD	148.36	.02648	153.35	200.31	1.5870

#1	-.00070	.31480	.00046	-.00010	.00907
#2	.00002	.31468	-.00002	.00056	.00887

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-4-A Acquired: 10/26/2018 11:52:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00673**
Stddev .00028
%RSD 4.1112

#1 **.00692**
#2 **.00653**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2663.6	1549.1	45865.	3659.1
Stddev	2.9	1.0	169.	8.4
%RSD	.10834	.06503	.36901	.22827

#1	2665.6	1549.8	45984.	3653.2
#2	2661.6	1548.4	45745.	3665.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.221%	93.202%	96.060%	98.987%
Range				

Sample Name: 480-143810-C-5-A Acquired: 10/26/2018 11:56:34 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.06817	.00572	.05731	.81417
Stddev	.00014	.00651	.00138	.00031	.00198
%RSD	28.935	9.5530	24.170	.54739	.24276

#1	-.00038	.07277	.00474	.05753	.81557
#2	-.00058	.06356	.00670	.05708	.81277

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	149.10	.00051	-.0059	.00061
Stddev	.00010	.07	.00004	.0082	.00026
%RSD	263.18	.05021	8.0955	138.4	42.714

#1	.00011	149.05	.00048	-.0117	.00079
#2	-.00003	149.16	.00054	-.0001	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00730	.41759	5.3021	.03783
Stddev	.00013	.00002	.00417	.0015	.00095
%RSD	64.340	.30639	.99740	.02870	2.5130

#1	.00030	.00732	.42054	5.3011	.03850
#2	.00011	.00729	.41465	5.3032	.03715

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-5-A Acquired: 10/26/2018 11:56:34 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.443	.54583	.00089	95.616	.01519
Stddev	.017	.00023	.00007	.294	.00007
%RSD	.10134	.04147	7.7090	.30700	.43768

#1	16.431	.54599	.00084	95.824	.01514
#2	16.455	.54567	.00094	95.409	.01524

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	5.683	-.00317	-.00205	16.398
Stddev	.00097	.013	.00033	.00175	.185
%RSD	121.30	.2210	10.441	85.523	1.1267

#1	.00011	5.674	-.00294	-.00329	16.529
#2	.00149	5.692	-.00341	-.00081	16.267

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.53710	.00125	.00105	.00911
Stddev	.00029	.00219	.00006	.00014	.00001
%RSD	136.07	.40683	5.0703	12.947	.10714

#1	.00001	.53864	.00129	.00096	.00910
#2	.00042	.53555	.00120	.00115	.00911

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-5-A Acquired: 10/26/2018 11:56:34 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01394**
 Stddev .00094
 %RSD 6.7673

#1 **.01461**
 #2 **.01327**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2544.7	1509.0	45101.	3618.5
Stddev	3.0	.9	2.	1.6
%RSD	.11955	.06153	.00545	.04510

#1	2546.9	1508.4	45102.	3617.3
#2	2542.6	1509.7	45099.	3619.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.061%	90.793%	94.459%	97.888%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 12:00:28 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47976	23.593	.47264	.46516	.48132	.46720	24.060	.49229
Stddev	.00110	.137	.00165	.00027	.00255	.00101	.069	.00046
%RSD	.22970	.58258	.34830	.05702	.52962	.21634	.28506	.09414
#1	.47898	23.496	.47147	.46534	.48313	.46648	24.011	.49262
#2	.48054	23.690	.47380	.46497	.47952	.46791	24.108	.49196

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0038	.47299	.48079	.47592	23.701	23.446	.46596	23.386
Stddev	.0168	.00016	.00035	.00119	.052	.027	.00023	.058
%RSD	438.1	.03277	.07297	.24948	.22057	.11538	.04842	.24698
#1	.0081	.47310	.48103	.47508	23.664	23.426	.46580	23.345
#2	-.0158	.47289	.48054	.47676	23.738	23.465	.46612	23.427

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48478	.48376	23.312	.46459	.47512	24.89	.47797	.47433
Stddev	.00049	.00103	.090	.00085	.00124	.08	.00047	.00150
%RSD	.10082	.21340	.38618	.18298	.26112	.3391	.09843	.31706
#1	.48444	.48449	23.248	.46399	.47600	24.95	.47831	.47326
#2	.48513	.48303	23.376	.46519	.47424	24.83	.47764	.47539

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 12:00:28 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.294	.48715	.48042	.47314	.46329	.47566	.47675
Stddev	.204	.00043	.00271	.00063	.00002	.00293	.00185
%RSD	.84086	.08879	.56371	.13416	.00337	.61577	.38823
#1	24.150	.48746	.47851	.47269	.46330	.47774	.47544
#2	24.439	.48684	.48234	.47359	.46328	.47359	.47806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2674.7	1560.8	45880.	3587.0
Stddev	3.9	3.4	11.	10.5
%RSD	.14477	.21857	.02457	.29161
#1	2671.9	1558.4	45873.	3594.4
#2	2677.4	1563.2	45888.	3579.6

Sample Name: CCB-4957862 Acquired: 10/26/2018 12:04:11 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00687	.00229	.00005	.00002	-.00004	.00238	-.00011
Stddev	.00001	.02315	.00338	.00009	.00000	.00004	.00260	.00012
%RSD	18.896	337.03	147.54	167.14	4.6172	86.508	109.28	110.52

#1	-.00005	.02324	-.00010	.00012	.00002	-.00007	.00054	-.00002
#2	-.00004	-.00950	.00468	-.00001	.00002	-.00002	.00422	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032	-.00001	.00028	-.00004	-.00079	-.03745	-.00001	.00199
Stddev	.0024	.00001	.00008	.00058	.00015	.02762	.00059	.00149
%RSD	75.74	71.556	27.529	1615.8	18.591	73.757	4554.6	74.781

#1	.0048	-.00001	.00033	.00038	-.00090	-.05699	-.00043	.00304
#2	.0015	-.00002	.00022	-.00045	-.00069	-.01792	.00040	.00094

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00090	-.00935	-.00006	.00023	-.0013	-.00161	-.00217
Stddev	.00002	.00014	.00309	.00037	.00033	.0017	.00037	.00091
%RSD	27.898	15.110	33.057	644.03	143.90	137.5	22.659	41.970

#1	.00005	.00100	-.00717	-.00032	.00046	-.0000	-.00136	-.00153
#2	.00008	.00081	-.01154	.00020	-.00000	-.0025	-.00187	-.00282

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 12:04:11 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03303	.00001	-.00001	-.00001	-.00149	.00005	.00048
Stddev	.01873	.00066	.00002	.00020	.00014	.00024	.00053
%RSD	56.717	4392.8	302.89	1517.8	9.1394	490.59	110.04

#1	.01978	-.00045	.00001	.00013	-.00159	-.00012	.00086
#2	.04627	.00048	-.00002	-.00016	-.00140	.00022	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.2	1599.4	47700.	3670.0
Stddev	2.7	5.0	31.	9.6
%RSD	.09511	.31033	.06454	.26120

#1	2846.1	1602.9	47722.	3663.2
#2	2842.2	1595.9	47678.	3676.8

Sample Name: CCVL-4954076 Acquired: 10/26/2018 12:08:03 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00562	.18580	.01500	.01908	.00201	.00204	.50354	.00200
Stddev	.00035	.01349	.00328	.00009	.00002	.00002	.00459	.00007
%RSD	6.2807	7.2624	21.841	.49154	1.1194	1.1776	.91192	3.4161
#1	.00587	.19534	.01268	.01902	.00199	.00206	.50030	.00205
#2	.00537	.17626	.01731	.01915	.00202	.00202	.50679	.00196

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0126	.00369	.00388	.00897	.04855	.43236	.02761	.20077
Stddev	.0024	.00011	.00003	.00005	.00063	.00002	.00078	.00048
%RSD	19.03	2.9279	.65836	.60391	1.2983	.00351	2.8204	.23776
#1	.0109	.00377	.00390	.00893	.04811	.43235	.02816	.20111
#2	.0143	.00361	.00386	.00900	.04900	.43237	.02706	.20043

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00275	.00961	.89205	.00971	.00990	.2005	.01820	.02255
Stddev	.00007	.00011	.01148	.00008	.00106	.0002	.00024	.00067
%RSD	2.3944	1.1782	1.2864	.86198	10.711	.0846	1.3270	2.9513
#1	.00280	.00969	.88394	.00965	.00915	.2006	.01837	.02208
#2	.00270	.00953	.90017	.00977	.01065	.2004	.01802	.02302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 12:08:03 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45342	.00959	.00475	.00446	.01779	.00511	.01041
Stddev	.01637	.00075	.00002	.00007	.00030	.00027	.00007
%RSD	3.6102	7.8325	.42380	1.6544	1.6993	5.3440	.68809
#1	.44185	.01012	.00474	.00451	.01801	.00491	.01046
#2	.46500	.00906	.00477	.00441	.01758	.00530	.01036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2821.7	1607.7	47386.	3657.8
Stddev	3.8	5.7	.	6.1
%RSD	.13527	.35184	.00039	.16722
#1	2824.4	1603.7	47386.	3662.1
#2	2819.0	1611.7	47386.	3653.5

Sample Name: 480-143810-C-6-A Acquired: 10/26/2018 12:11:54 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	1.1368	.00553	.04410	.23969
Stddev	.00022	.0124	.00106	.00023	.00120
%RSD	93.771	1.0890	19.143	.51752	.49950

#1	-.00008	1.1455	.00478	.04394	.24054
#2	-.00038	1.1280	.00628	.04427	.23885

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	91.086	.00021	.0064	.00047
Stddev	.00007	.203	.00005	.0210	.00002
%RSD	152.45	.22329	25.240	328.9	4.2720

#1	.00010	90.943	.00017	-.0085	.00046
#2	-.00000	91.230	.00024	.0213	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01939	.00184	1.1585	5.3527	.02226
Stddev	.00003	.00024	.0023	.0130	.00112
%RSD	.15047	13.224	.20138	.24195	5.0207

#1	.01941	.00201	1.1601	5.3435	.02305
#2	.01937	.00166	1.1568	5.3619	.02147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-6-A Acquired: 10/26/2018 12:11:54 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.230	.02208	.00332	30.865	.02664
Stddev	.033	.00013	.00006	.131	.00005
%RSD	.27321	.58337	1.6935	.42413	.19533

#1	12.253	.02199	.00328	30.957	.02660
#2	12.206	.02217	.00336	30.772	.02667

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00085	5.916	-.00292	.00150	19.250
Stddev	.00098	.007	.00006	.00264	.003
%RSD	115.38	.1253	2.0041	175.51	.01777

#1	.00016	5.910	-.00288	-.00036	19.253
#2	.00154	5.921	-.00296	.00337	19.248

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00233	.36606	.02257	-.00070	.01367
Stddev	.00100	.00211	.00023	.00306	.00027
%RSD	43.133	.57665	1.0325	437.03	1.9494

#1	.00162	.36755	.02273	-.00287	.01386
#2	.00304	.36457	.02240	.00147	.01348

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-6-A Acquired: 10/26/2018 12:11:54 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00525**
 Stddev .00027
 %RSD 5.2256

#1 **.00506**
 #2 **.00545**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2647.2	1538.0	45824.	3639.8
Stddev	1.0	2.3	281.	12.9
%RSD	.03825	.14811	.61286	.35378

#1	2647.9	1539.6	45625.	3648.9
#2	2646.5	1536.4	46023.	3630.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.647%	92.538%	95.975%	98.463%
Range				

Sample Name: 480-143810-C-7-A Acquired: 10/26/2018 12:15:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.58560	.00537	.04360	.24315
Stddev	.00005	.00319	.00130	.00056	.00099
%RSD	31.975	.54508	24.262	1.2734	.40819

#1	.00012	.58785	.00445	.04320	.24385
#2	.00019	.58334	.00629	.04399	.24244

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	86.372	.00012	.0193	-.00030
Stddev	.00001	.045	.00006	.0011	.00004
%RSD	16.069	.05248	53.675	5.816	13.544

#1	.00005	86.340	.00007	.0185	-.00033
#2	.00004	86.404	.00016	.0201	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00470	.00137	2.3398	4.8901	.01933
Stddev	.00019	.00043	.0072	.0256	.00068
%RSD	4.0419	31.655	.30941	.52253	3.5334

#1	.00457	.00106	2.3347	4.9082	.01981
#2	.00483	.00167	2.3449	4.8720	.01884

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-7-A Acquired: 10/26/2018 12:15:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.838	.01226	.00225	34.818	.00053
Stddev	.029	.00007	.00016	.249	.00035
%RSD	.24444	.60226	7.2622	.71483	67.060

#1	11.859	.01231	.00213	34.642	.00078
#2	11.818	.01221	.00236	34.994	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	6.924	-.00324	.00527	14.257
Stddev	.00004	.017	.00060	.00182	.131
%RSD	17.305	.2457	18.460	34.587	.92133

#1	.00020	6.936	-.00282	.00656	14.350
#2	.00026	6.912	-.00366	.00398	14.164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.34733	.00826	.00032	.00967
Stddev	.00051	.00238	.00039	.00045	.00029
%RSD	84.471	.68450	4.7223	141.27	3.0014

#1	.00096	.34565	.00799	.00064	.00987
#2	.00024	.34901	.00854	.00000	.00946

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-7-A Acquired: 10/26/2018 12:15:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01191**
 Stddev .00046
 %RSD 3.8632

#1 **.01223**
 #2 **.01158**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2670.0	1561.3	46180.	3675.8
Stddev	7.4	3.0	102.	6.9
%RSD	.27636	.19192	.22072	.18865

#1	2675.2	1563.4	46108.	3680.7
#2	2664.8	1559.2	46252.	3670.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.446%	93.938%	96.720%	99.438%
Range				

Sample Name: 480-143810-C-8-A Acquired: 10/26/2018 12:19:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.02956	.00609	.04527	.20539
Stddev	.00013	.00271	.00214	.00008	.00030
%RSD	94.999	9.1791	35.138	.17013	.14455

#1	-.00004	.03148	.00760	.04521	.20518
#2	-.00022	.02764	.00458	.04532	.20560

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	73.034	.00004	.0134	-.00045
Stddev	.00005	.267	.00000	.0215	.00011
%RSD	191.01	.36501	8.5061	160.1	23.788

#1	.00006	72.845	.00004	-.0018	-.00037
#2	-.00001	73.222	.00003	.0286	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00281	.00031	.01567	4.5107	.01913
Stddev	.00020	.00030	.00010	.0033	.00019
%RSD	6.9780	99.261	.62487	.07349	.96750

#1	.00295	.00009	.01560	4.5084	.01900
#2	.00267	.00052	.01574	4.5131	.01926

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-8-A Acquired: 10/26/2018 12:19:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9935	.00438	.00206	30.571	-.00029
Stddev	.0391	.00006	.00016	.141	.00017
%RSD	.39152	1.3610	7.8491	.46184	58.736

#1	10.021	.00442	.00195	30.472	-.00017
#2	9.9659	.00434	.00218	30.671	-.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	8.363	-.00371	.00872	14.498
Stddev	.00112	.003	.00043	.00083	.011
%RSD	202.75	.0370	11.519	9.4786	.07556

#1	.00024	8.361	-.00341	.00931	14.506
#2	-.00134	8.366	-.00401	.00814	14.490

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.29138	-.00016	-.00029	.01097
Stddev	.00061	.00187	.00010	.00097	.00021
%RSD	627.78	.64005	61.375	339.03	1.8703

#1	-.00053	.29007	-.00009	.00040	.01083
#2	.00033	.29270	-.00023	-.00097	.01112

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143810-C-8-A Acquired: 10/26/2018 12:19:29 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00337**
 Stddev .00019
 %RSD 5.4941

#1 **.00324**
 #2 **.00350**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2676.5	1552.4	46094.	3683.3
Stddev	.5	.5	21.	25.6
%RSD	.01747	.03414	.04511	.69597

#1	2676.8	1552.7	46079.	3701.4
#2	2676.2	1552.0	46108.	3665.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.672%	93.400%	96.540%	99.640%
Range				

Sample Name: blank Acquired: 10/26/2018 12:23:16 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.02337	.00013	-.00027	.00002
Stddev	.00003	.00285	.00112	.00032	.00000
%RSD	14.047	12.184	848.99	116.92	6.7009

#1	-.00021	.02136	.00093	-.00005	.00002
#2	-.00017	.02538	-.00066	-.00050	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00676	-.00003	-.0028	-.00021
Stddev	.00001	.00118	.00001	.0002	.00005
%RSD	23.079	17.519	38.738	7.857	22.903

#1	.00005	.00760	-.00004	-.0029	-.00017
#2	.00004	.00593	-.00002	-.0026	-.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00014	.00195	-.02449	.00105
Stddev	.00018	.00003	.00016	.01069	.00021
%RSD	165.80	23.950	8.3444	43.656	19.647

#1	-.00002	-.00012	.00184	-.01693	.00091
#2	.00024	-.00016	.00207	-.03205	.00120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 12:23:16 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00096	-.00022	-.00002	-.00319	-.00003
Stddev	.00007	.00005	.00008	.00203	.00009
%RSD	6.8989	24.455	354.29	63.714	370.84

#1	-.00091	-.00018	.00003	-.00175	.00004
#2	-.00101	-.00026	-.00008	-.00463	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.0036	-.00147	-.00199	-.00288
Stddev	.00055	.0011	.00017	.00230	.01396
%RSD	107.39	30.17	11.469	115.57	484.37

#1	-.00090	.0028	-.00135	-.00361	-.01275
#2	-.00012	.0044	-.00159	-.00036	.00699

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00002	-.00014	.00019	-.00016
Stddev	.00094	.00003	.00011	.00032	.00003
%RSD	1569.1	172.90	79.635	165.06	17.971

#1	-.00060	-.00000	-.00006	.00042	-.00014
#2	.00072	.00004	-.00022	-.00003	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 12:23:16 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00708**
 Stddev .00028
 %RSD 3.9042

#1 **.00728**
 #2 **.00689**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2815.4	1598.6	47471.	3662.7
Stddev	3.5	3.0	275.	5.3
%RSD	.12317	.18570	.58012	.14409

#1	2812.9	1596.5	47666.	3666.4
#2	2817.8	1600.7	47276.	3658.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.533%	96.182%	99.424%	99.083%
Range				

Sample Name: 480-141985-A-1-A@50 Acquired: 10/26/2018 12:27:07 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00702	.00104	.03710	.00028
Stddev	.00020	.00476	.00155	.00008	.00002
%RSD	333.05	67.920	148.38	.21251	6.4998

#1	-.00021	.01038	-.00005	.03705	.00027
#2	.00008	.00365	.00214	.03716	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	8.9104	.00009	-.0016	.00006
Stddev	.00003	.0028	.00003	.0055	.00004
%RSD	97.637	.03125	34.831	342.2	72.930

#1	.00005	8.9084	.00007	.0023	.00003
#2	.00001	8.9124	.00011	-.0055	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00002	.00536	.72007	.08229
Stddev	.00002	.00067	.00026	.00323	.00127
%RSD	43.738	3071.9	4.8240	.44861	1.5479

#1	.00005	.00045	.00518	.72235	.08319
#2	.00002	-.00050	.00554	.71778	.08139

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-1-A@50 Acquired: 10/26/2018 12:27:07 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	85.286	.02789	-.00009	238.00	.00048
Stddev	.001	.00006	.00005	.10	.00024
%RSD	.00148	.20476	49.866	.04367	48.957

#1	85.287	.02793	-.00006	237.93	.00032
#2	85.285	.02785	-.00012	238.08	.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00105	F 290.7	-.00200	-.00389	.07055
Stddev	.00076	.7	.00098	.00221	.00093
%RSD	72.300	.2448	48.905	56.693	1.3137

#1	-.00051	291.2	-.00270	-.00546	.07121
#2	-.00159	290.2	-.00131	-.00233	.06990

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.19682	-.00005	-.00058	-.00055
Stddev	.00009	.00037	.00019	.00072	.00014
%RSD	8025.6	.18662	400.61	124.56	25.755

#1	-.00006	.19708	-.00018	-.00109	-.00045
#2	.00006	.19656	.00009	-.00007	-.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-1-A@50 Acquired: 10/26/2018 12:27:07 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **-.00047**
Stddev .00037
%RSD 79.634

#1 **-.00073**
#2 **-.00020**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2518.4	1517.4	44492.	3584.5
Stddev	1.5	2.1	20.	18.2
%RSD	.05876	.13539	.04445	.50812

#1	2519.4	1516.0	44478.	3571.6
#2	2517.3	1518.9	44506.	3597.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.139%	91.298%	93.184%	96.967%
Range				

Sample Name: 480-141985-A-2-A@20 Acquired: 10/26/2018 12:31:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	.01160	-.00066	.07308	.00048
Stddev	.00013	.00472	.00172	.00026	.00001
%RSD	27.471	40.664	260.06	.35887	1.2083

#1	-.00055	.00826	-.00188	.07327	.00049
#2	-.00037	.01493	.00056	.07290	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	19.211	.00009	.0072	-.00002
Stddev	.00000	.021	.00011	.0133	.00003
%RSD	32.746	.11158	119.53	184.9	181.35

#1	.00001	19.196	.00017	.0166	.00000
#2	.00002	19.226	.00001	-.0022	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00016	.00196	.48574	.05738
Stddev	.00013	.00008	.00016	.00073	.00085
%RSD	445.09	53.436	8.0638	.15116	1.4843

#1	-.00006	.00010	.00207	.48626	.05678
#2	.00012	.00022	.00184	.48522	.05799

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-2-A@20 Acquired: 10/26/2018 12:31:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	104.53	.21138	.00022	204.91	.00110
Stddev	.04	.00054	.00003	.25	.00020
%RSD	.04302	.25413	15.340	.12112	17.835

#1	104.50	.21100	.00024	205.09	.00124
#2	104.56	.21176	.00019	204.73	.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	F 298.8	-.00123	-.00729	.24101
Stddev	.00039	.2	.00052	.00009	.00795
%RSD	82.529	.0670	42.211	1.2458	3.3003

#1	-.00020	298.9	-.00086	-.00735	.23539
#2	-.00075	298.6	-.00160	-.00722	.24663

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.49976	.00018	.00016	-.00028
Stddev	.00048	.00042	.00005	.00050	.00012
%RSD	77.217	.08369	26.636	319.20	41.314

#1	.00096	.50006	.00021	.00051	-.00020
#2	.00028	.49947	.00015	-.00020	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-2-A@20 Acquired: 10/26/2018 12:31:01 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **-.00067**
 Stddev .00008
 %RSD 11.880

#1 **-.00061**
 #2 **-.00072**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2521.3	1516.6	44475.	3577.6
Stddev	.2	1.9	12.	.4
%RSD	.00815	.12329	.02601	.01115

#1	2521.2	1517.9	44483.	3577.9
#2	2521.4	1515.2	44467.	3577.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.240%	91.246%	93.150%	96.780%
Range				

Sample Name: 480-141985-A-3-A@20 Acquired: 10/26/2018 12:34:55 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.01670	-.00009	.07350	.00049
Stddev	.00042	.01310	.00144	.00005	.00002
%RSD	203.94	78.433	1566.4	.07068	3.5613

#1	-.00051	.02596	-.00111	.07354	.00047
#2	.00009	.00744	.00093	.07347	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	19.461	.00016	-.0013	.00004
Stddev	.00000	.030	.00001	.0012	.00006
%RSD	5.0120	.15335	8.0970	88.63	135.23

#1	.00008	19.439	.00015	-.0022	.00000
#2	.00008	19.482	.00017	-.0005	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00013	-.00092	.50216	.05919
Stddev	.00000	.00018	.00106	.00534	.00051
%RSD	.76523	132.09	115.59	1.0639	.86739

#1	.00026	-.00001	-.00017	.50594	.05956
#2	.00027	-.00026	-.00167	.49838	.05883

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-3-A@20 Acquired: 10/26/2018 12:34:55 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	106.29	.21388	.00016	208.68	.00114
Stddev	.11	.00016	.00015	.21	.00005
%RSD	.10359	.07337	94.056	.09834	4.6763

#1	106.36	.21400	.00006	208.53	.00118
#2	106.21	.21377	.00027	208.82	.00110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00204	F 304.0	-.00305	-.00514	.25334
Stddev	.00108	1.0	.00042	.00131	.00481
%RSD	52.839	.3217	13.659	25.532	1.8996

#1	-.00128	304.7	-.00276	-.00421	.25674
#2	-.00280	303.3	-.00335	-.00607	.24993

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.50734	-.00007	.00002	-.00064
Stddev	.00001	.00097	.00027	.00132	.00023
%RSD	1.0907	.19130	373.86	5795.3	34.951

#1	.00068	.50803	-.00026	-.00091	-.00080
#2	.00067	.50666	.00012	.00095	-.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-3-A@20 Acquired: 10/26/2018 12:34:55 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **-.00016**
 Stddev .00015
 %RSD 94.268

#1 **-.00005**
 #2 **-.00027**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2521.7	1515.8	44415.	3564.7
Stddev	.2	3.3	6.	12.6
%RSD	.00965	.21805	.01287	.35353

#1	2521.6	1513.4	44411.	3573.6
#2	2521.9	1518.1	44419.	3555.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.256%	91.199%	93.024%	96.433%
Range				

Sample Name: 480-141985-A-4-A@10 Acquired: 10/26/2018 12:38:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.09043	-.00018	.13992	.00140
Stddev	.00003	.00941	.00050	.00006	.00000
%RSD	10.502	10.403	282.55	.04615	.07799

#1	-.00032	.08378	-.00053	.13987	.00140
#2	-.00027	.09708	.00017	.13996	.00140

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	35.446	.00011	.0038	.00014
Stddev	.00003	.102	.00002	.0024	.00007
%RSD	174.45	.28682	17.997	62.41	49.522

#1	-.00000	35.374	.00012	.0021	.00009
#2	.00004	35.518	.00009	.0055	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	-.00014	.18068	.81440	.07535
Stddev	.00002	.00024	.00211	.02249	.00075
%RSD	6.6169	178.26	1.1687	2.7611	.99655

#1	.00035	-.00031	.17918	.79850	.07482
#2	.00031	.00004	.18217	.83030	.07588

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-4-A@10 Acquired: 10/26/2018 12:38:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	58.974	.07103	.00016	291.42	.00037
Stddev	.087	.00004	.00010	.56	.00007
%RSD	.14827	.05685	65.607	.19303	17.785

#1	59.036	.07101	.00023	291.82	.00032
#2	58.913	.07106	.00009	291.02	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00179	F 303.4	-.00221	-.00573	.67107
Stddev	.00036	.4	.00259	.00056	.00386
%RSD	20.130	.1424	117.06	9.7966	.57525

#1	-.00205	303.8	-.00038	-.00534	.66834
#2	-.00154	303.1	-.00404	-.00613	.67380

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.84129	.00142	.00037	.00009
Stddev	.00049	.00018	.00018	.00061	.00012
%RSD	622.40	.02175	12.609	164.09	133.24

#1	.00043	.84116	.00154	-.00006	.00001
#2	-.00027	.84142	.00129	.00081	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-141985-A-4-A@10 Acquired: 10/26/2018 12:38:50 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **-.00058**
 Stddev .00083
 %RSD 142.70

#1 .00001
 #2 -.00117

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2480.1	1503.2	43857.	3557.5
Stddev	.7	2.4	48.	8.8
%RSD	.02949	.16109	.10887	.24762

#1	2480.6	1501.5	43823.	3551.3
#2	2479.6	1504.9	43891.	3563.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.799%	90.441%	91.855%	96.238%
Range				

Sample Name: LB 480-441481/1-B Acquired: 10/26/2018 12:42:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.04426	.00337	.03001	.00509
Stddev	.00053	.00758	.00023	.00052	.00002
%RSD	503.52	17.123	6.9572	1.7359	.38310

#1	-.00027	.03890	.00353	.02964	.00510
#2	.00048	.04962	.00320	.03038	.00508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.17723	-.00009	.0127	-.00000
Stddev	.00005	.00183	.00011	.0060	.00006
%RSD	267.32	1.0313	117.50	46.83	2538.1

#1	-.00002	.17594	-.00017	.0169	.00004
#2	.00005	.17852	-.00002	.0085	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00057	.00128	.02591	.00024
Stddev	.00014	.00054	.00195	.02022	.00022
%RSD	44.292	93.710	152.57	78.058	92.143

#1	.00042	.00019	-.00010	.04021	.00009
#2	.00022	.00096	.00265	.01161	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LB 480-441481/1-B Acquired: 10/26/2018 12:42:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02539	.00046	-.00004	F 4.2533	-.00019
Stddev	.00218	.00006	.00006	.0155	.00028
%RSD	8.6004	13.781	149.25	.36507	143.56

#1	.02384	.00050	-.00008	4.2643	.00000
#2	.02693	.00041	.00000	4.2423	-.00039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				1.0000	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.0661	-.00095	.00333	.17578
Stddev	.00066	.0030	.00173	.00194	.00664
%RSD	425.60	4.539	181.52	58.204	3.7777

#1	-.00062	.0683	.00027	.00470	.17108
#2	.00031	.0640	-.00218	.00196	.18048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.00041	-.00016	-.00137	-.00011
Stddev	.00022	.00000	.00001	.00146	.00010
%RSD	20.039	.18909	9.3557	106.62	86.452

#1	.00124	.00041	-.00015	-.00241	-.00018
#2	.00093	.00041	-.00017	-.00034	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LB 480-441481/1-B Acquired: 10/26/2018 12:42:44 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01066**
 Stddev .00012
 %RSD 1.1323

#1 **.01074**
 #2 **.01057**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2836.6	1594.9	47623.	3748.2
Stddev	.0	5.1	116.	12.1
%RSD	.00136	.32073	.24280	.32328

#1	2836.5	1598.5	47541.	3739.6
#2	2836.6	1591.3	47705.	3756.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.274%	95.959%	99.742%	101.40%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 12:46:36 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47966	23.482	.47684	.46808	.47469	.46688	23.958	.49359
Stddev	.00128	.112	.00127	.00043	.00137	.00010	.026	.00008
%RSD	.26695	.47720	.26724	.09248	.28933	.02244	.10714	.01610

#1	.48057	23.562	.47774	.46777	.47372	.46681	23.939	.49354
#2	.47876	23.403	.47594	.46838	.47566	.46695	23.976	.49365

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0113	.47356	.47762	.47827	23.601	23.516	.46672	23.434
Stddev	.0011	.00020	.00294	.00035	.009	.015	.00128	.075
%RSD	9.570	.04193	.61616	.07245	.03933	.06583	.27374	.32088

#1	-.0105	.47370	.47554	.47852	23.608	23.527	.46762	23.380
#2	-.0120	.47342	.47970	.47803	23.595	23.505	.46581	23.487

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48592	.48492	23.314	.46516	.47668	24.86	.48147	.47460
Stddev	.00167	.00009	.075	.00048	.00279	.08	.00246	.00216
%RSD	.34421	.01947	.32101	.10356	.58597	.3401	.51110	.45484

#1	.48474	.48498	23.367	.46550	.47471	24.80	.47973	.47308
#2	.48711	.48485	23.261	.46482	.47866	24.92	.48321	.47613

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 12:46:36 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.110	.48758	.47963	.47588	.46571	.47231	.47342
Stddev	.119	.00019	.00185	.00047	.00206	.00176	.00316
%RSD	.49229	.03836	.38663	.09821	.44280	.37256	.66845
#1	24.026	.48744	.48095	.47554	.46717	.47106	.47118
#2	24.194	.48771	.47832	.47621	.46425	.47355	.47566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.2	1557.2	46295.	3624.2
Stddev	7.5	2.4	153.	7.8
%RSD	.28117	.15693	.32992	.21532
#1	2661.9	1555.5	46403.	3629.8
#2	2672.5	1558.9	46187.	3618.7

Sample Name: CCB-4957862 Acquired: 10/26/2018 12:50:19 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00495	-.00106	.00004	.00001	.00000	.00102	.00001
Stddev	.00001	.00854	.00209	.00010	.00001	.00007	.00128	.00001
%RSD	20.659	172.54	196.44	224.65	83.778	1389.4	124.74	99.391

#1	-.00005	.01099	-.00254	.00011	.00000	.00005	.00012	.00001
#2	-.00004	-.00109	.00041	-.00003	.00001	-.00004	.00193	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0108	-.00016	-.00005	-.00002	.00058	-.02682	.00026	-.00095
Stddev	.0090	.00008	.00018	.00010	.00077	.01458	.00023	.00022
%RSD	83.77	49.955	388.54	423.17	132.14	54.368	87.768	23.507

#1	.0044	-.00022	.00008	-.00009	.00113	-.03713	.00010	-.00079
#2	.0171	-.00011	-.00017	.00005	.00004	-.01651	.00043	-.00111

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00082	.00627	-.00020	-.00052	.0223	-.00132	-.00249
Stddev	.00005	.00011	.00004	.00009	.00007	.0014	.00051	.00072
%RSD	159.16	13.827	.67641	47.201	13.396	6.350	38.235	28.942

#1	-.00000	.00090	.00630	-.00013	-.00047	.0233	-.00168	-.00198
#2	.00006	.00074	.00624	-.00026	-.00057	.0213	-.00096	-.00300

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 12:50:19 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01688	.00041	.00003	.00012	-.00094	-.00005	.00063
Stddev	.01268	.00017	.00001	.00030	.00014	.00019	.00009
%RSD	75.131	41.370	29.147	242.26	15.219	410.09	13.737

#1	.00791	.00029	.00002	-.00009	-.00104	-.00018	.00069
#2	.02585	.00053	.00003	.00033	-.00084	.00009	.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.3	1613.0	47663.	3661.0
Stddev	.7	1.2	117.	3.9
%RSD	.02434	.07650	.24622	.10566

#1	2843.8	1612.1	47580.	3663.7
#2	2844.8	1613.8	47746.	3658.3

Sample Name: CCVL-4954076 Acquired: 10/26/2018 12:54:11 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00547	.18662	.01547	.01906	.00200	.00196	.50420	.00198
Stddev	.00001	.00850	.00157	.00002	.00001	.00001	.00356	.00013
%RSD	.17197	4.5567	10.146	.09207	.33017	.71208	.70517	6.7881
#1	.00546	.19264	.01436	.01908	.00201	.00197	.50168	.00188
#2	.00548	.18061	.01657	.01905	.00200	.00195	.50671	.00207

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0095	.00362	.00356	.00923	.04936	.43597	.02694	.19895
Stddev	.0002	.00013	.00001	.00032	.00395	.00646	.00087	.00006
%RSD	2.163	3.6338	.25450	3.4697	7.9992	1.4823	3.2337	.02969
#1	.0093	.00353	.00357	.00946	.04656	.44054	.02756	.19891
#2	.0096	.00371	.00355	.00900	.05215	.43140	.02633	.19899

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00275	.00966	.91441	.00937	.00925	.2314	.01786	.02093
Stddev	.00000	.00046	.00107	.00002	.00003	.0045	.00082	.00038
%RSD	.07008	4.7419	.11674	.23507	.35872	1.934	4.5621	1.8251
#1	.00275	.00999	.91516	.00939	.00922	.2283	.01844	.02120
#2	.00275	.00934	.91365	.00936	.00927	.2346	.01729	.02066

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/26/2018 12:54:11 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47192	.00964	.00471	.00439	.01824	.00438	.01080
Stddev	.02076	.00012	.00015	.00037	.00108	.00001	.00055
%RSD	4.3988	1.2506	3.1163	8.3940	5.9252	.15228	5.0670

#1	.45724	.00973	.00460	.00465	.01747	.00439	.01119
#2	.48660	.00956	.00481	.00413	.01900	.00438	.01042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2823.9	1611.4	47510.	3672.3
Stddev	.2	.7	54.	2.3
%RSD	.00627	.04317	.11321	.06258

#1	2824.1	1610.9	47548.	3670.7
#2	2823.8	1611.9	47472.	3674.0

Sample Name: MB 480-441638/2-A Acquired: 10/26/2018 12:58:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.01082	.00124	.00013	.00003
Stddev	.00029	.00517	.00082	.00013	.00001
%RSD	596.92	47.759	65.908	100.96	52.391

#1	.00016	.01447	.00182	.00004	.00004
#2	-.00025	.00717	.00066	.00022	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.01666	-.00014	.0072	-.00015
Stddev	.00004	.00290	.00005	.0028	.00003
%RSD	123.54	17.397	38.789	38.47	17.890

#1	.00006	.01461	-.00010	.0052	-.00013
#2	.00000	.01871	-.00017	.0091	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00004	-.00048	-.03199	.00081
Stddev	.00011	.00018	.00123	.00238	.00072
%RSD	180.36	502.02	257.08	7.4378	88.192

#1	-.00002	-.00016	-.00135	-.03367	.00132
#2	.00014	.00009	.00039	-.03031	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441638/2-A Acquired: 10/26/2018 12:58:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00207	.00034	.00021	.00659	-.00005
Stddev	.00022	.00012	.00008	.01084	.00002
%RSD	10.546	36.145	36.084	164.52	36.924

#1	.00222	.00042	.00026	.01425	-.00004
#2	.00192	.00025	.00016	-.00108	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.0261	-.00250	-.00296	-.02171
Stddev	.00136	.0015	.00029	.00257	.00706
%RSD	357.55	5.873	11.659	87.070	32.508

#1	-.00058	.0271	-.00270	-.00477	-.02670
#2	.00134	.0250	-.00229	-.00114	-.01672

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00002	.00004	-.00009	-.00005
Stddev	.00061	.00002	.00021	.00010	.00019
%RSD	604.70	114.11	591.32	114.80	399.07

#1	.00033	.00003	-.00011	-.00002	-.00018
#2	-.00053	.00000	.00019	-.00016	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441638/2-A Acquired: 10/26/2018 12:58:02 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00243**
 Stddev .00034
 %RSD 13.882

#1 **.00267**
 #2 **.00219**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2806.5	1603.9	47478.	3688.7
Stddev	1.3	2.1	94.	3.9
%RSD	.04496	.13001	.19739	.10609

#1	2807.4	1602.4	47412.	3691.5
#2	2805.7	1605.4	47544.	3685.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.223%	96.501%	99.439%	99.786%
Range				

Sample Name: LCS 480-441638/3-A Acquired: 10/26/2018 13:01:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.97520	.03369	.99649	.02662	.95690
Stddev	.00137	.00940	.00149	.00017	.00611
%RSD	.14091	27.908	.14946	.64882	.63851

#1	.97617	.02704	.99754	.02650	.95258
#2	.97423	.04034	.99544	.02674	.96122

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.98184	.16821	1.0070	-.0011	.93961
Stddev	.00086	.00163	.0014	.0033	.00019
%RSD	.08803	.97118	.13622	288.8	.02000

#1	.98246	.16706	1.0079	.0012	.93974
#2	.98123	.16937	1.0060	-.0034	.93948

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.97526	.95418	.01049	-.00705	.00156
Stddev	.00207	.00199	.00249	.00889	.00016
%RSD	.21266	.20859	23.694	125.98	10.171

#1	.97673	.95559	.01225	-.01334	.00144
#2	.97380	.95278	.00873	-.00077	.00167

Check ?	Chk Pass	Chk Pass	None	None	None
High Limit					
Low Limit					

Sample Name: LCS 480-441638/3-A Acquired: 10/26/2018 13:01:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01792	.95602	.97312	4.1434	.96792
Stddev	.00125	.00033	.00061	.0236	.00094
%RSD	6.9910	.03427	.06219	.56833	.09696

#1	.01703	.95625	.97355	4.1268	.96725
#2	.01881	.95579	.97269	4.1601	.96858

Check ?	None	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99518	F .0295	.94544	1.0110	.16809
Stddev	.00070	.0012	.00413	.0008	.00707
%RSD	.06994	3.968	.43650	.08030	4.2043

#1	.99567	.0303	.94836	1.0105	.16310
#2	.99469	.0287	.94252	1.0116	.17309

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None
High Limit		1.200			
Low Limit		.8000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.97570	.00041	.93860	.96032
Stddev	.00026	.00543	.00001	.00226	.00170
%RSD	32.767	.55656	1.7192	.24068	.17653

#1	.00098	.97186	.00040	.94020	.96152
#2	.00061	.97954	.00041	.93700	.95912

Check ?	None	None	None	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441638/3-A Acquired: 10/26/2018 13:01:53 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.98850**
 Stddev .00278
 %RSD .28123

#1 **.98653**
 #2 **.99047**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2811.5	1598.6	47377.	3738.0
Stddev	3.7	1.2	201.	2.6
%RSD	.13287	.07732	.42360	.06928

#1	2814.1	1599.5	47235.	3739.9
#2	2808.8	1597.8	47519.	3736.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.395%	96.185%	99.228%	101.12%
Range				

Sample Name: 480-143549-A-1-C Acquired: 10/26/2018 13:05:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	1.4478	.00403	3.1300	.30560
Stddev	.00025	.0080	.00055	.0086	.00076
%RSD	61.392	.55286	13.546	.27351	.24714

#1	-.00023	1.4534	.00364	3.1240	.30507
#2	-.00059	1.4421	.00442	3.1361	.30614

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	F 1247.4	.00031	.0029	.00455
Stddev	.00011	5.9	.00008	.0298	.00000
%RSD	101.21	.47570	24.901	1018.	.05690

#1	.00018	1243.2	.00025	.0240	.00455
#2	.00003	1251.6	.00036	-.0182	.00455

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00763	.01512	.46812	8.7349	F 156.81
Stddev	.00019	.00013	.00240	.1104	.25
%RSD	2.4848	.82967	.51362	1.2635	.15777

#1	.00776	.01503	.46982	8.6569	156.98
#2	.00749	.01521	.46642	8.8130	156.63

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					45.000
Low Limit					-.03000

Sample Name: 480-143549-A-1-C Acquired: 10/26/2018 13:05:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 642.81	4.1788	.00772	464.41	.16092
Stddev	1.64	.0060	.00001	1.25	.00026
%RSD	.25459	.14410	.12677	.26923	.16448

#1	641.65	4.1831	.00772	463.52	.16111
#2	643.97	4.1746	.00773	465.29	.16073

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	450.00				
Low Limit	-.20000				

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00529	27.13	.00462	-.00896	F 53.707
Stddev	.00028	.04	.00310	.00506	.071
%RSD	5.2333	.1608	67.165	56.454	.13138

#1	-.00510	27.10	.00242	-.00539	53.756
#2	-.00549	27.16	.00681	-.01254	53.657

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					50.000
Low Limit					-.50000

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00281	1.1851	.15753	-.00296	.07722
Stddev	.00099	.0020	.00016	.00224	.00044
%RSD	35.323	.16948	.09963	75.527	.57567

#1	.00351	1.1836	.15742	-.00455	.07753
#2	.00211	1.1865	.15764	-.00138	.07690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143549-A-1-C Acquired: 10/26/2018 13:05:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01254**
 Stddev .00060
 %RSD 4.7533

#1 **.01296**
 #2 **.01212**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1930.3	1257.8	37713.	3316.7
Stddev	.5	2.2	6.	5.6
%RSD	.02410	.17111	.01718	.16914

#1	1930.7	1259.3	37708.	3320.6
#2	1930.0	1256.3	37717.	3312.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.558%	75.677%	78.986%	89.722%
Range				

Sample Name: 480-143549-A-1-C@2 Acquired: 10/26/2018 13:09:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	.70704	.00521	1.5844	.15284
Stddev	.00009	.02952	.00609	.0014	.00047
%RSD	21.357	4.1745	116.98	.08506	.30957

#1	-.00034	.68617	.00090	1.5854	.15251
#2	-.00046	.72791	.00951	1.5835	.15318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	657.21	.00023	.0099	.00215
Stddev	.00007	1.31	.00024	.0081	.00017
%RSD	125.67	.19900	104.49	81.97	7.8929

#1	.00001	656.28	.00039	.0041	.00203
#2	.00010	658.13	.00006	.0156	.00227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00407	.00688	.23521	4.2611	F 81.254
Stddev	.00016	.00011	.00022	.0043	.761
%RSD	4.0120	1.6559	.09540	.10062	.93627

#1	.00419	.00680	.23537	4.2641	80.716
#2	.00396	.00697	.23505	4.2581	81.792

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					45.000
Low Limit					-.03000

Sample Name: 480-143549-A-1-C@2 Acquired: 10/26/2018 13:09:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	333.70	2.1556	.00322	225.85	.08146
Stddev	1.18	.0024	.00022	.91	.00023
%RSD	.35457	.11237	6.8724	.40329	.28218

#1	332.86	2.1539	.00306	225.21	.08162
#2	334.54	2.1573	.00338	226.50	.08130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00323	13.48	-.00184	-.01034	27.904
Stddev	.00269	.00	.00105	.00500	.014
%RSD	83.319	.0161	57.069	48.407	.04961

#1	-.00133	13.47	-.00258	-.00680	27.914
#2	-.00513	13.48	-.00110	-.01388	27.895

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00257	.58239	.07968	-.00133	.03875
Stddev	.00078	.00296	.00079	.00058	.00004
%RSD	30.314	.50898	.99581	43.828	.11243

#1	.00202	.58029	.07912	-.00092	.03878
#2	.00312	.58448	.08024	-.00174	.03872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143549-A-1-C@2 Acquired: 10/26/2018 13:09:51 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00699**
 Stddev .00114
 %RSD 16.326

#1 **.00618**
 #2 **.00779**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2124.4	1344.7	40279.	3409.3
Stddev	.4	4.0	50.	3.7
%RSD	.01955	.29792	.12443	.10832

#1	2124.7	1341.8	40314.	3411.9
#2	2124.2	1347.5	40243.	3406.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.351%	80.903%	84.360%	92.227%
Range				

Sample Name: 480-143948-A-1-C Acquired: 10/26/2018 13:13:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00111	.04131	.00232	1.8393	.85943
Stddev	.00077	.02292	.00046	.0006	.00381
%RSD	69.460	55.483	19.762	.03123	.44280

#1	-.00056	.02510	.00199	1.8389	.85674
#2	-.00165	.05752	.00264	1.8397	.86212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	F 2564.9	1.0489	.0180	.25190
Stddev	.00001	3.3	.0010	.0100	.00018
%RSD	5.1224	.12896	.09276	55.43	.07200

#1	.00015	2567.2	1.0482	.0251	.25203
#2	.00014	2562.5	1.0496	.0110	.25178

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.05182	.01124	103.67	.20736
Stddev	.00042	.00033	.00195	.30	.00136
%RSD	44.180	.63305	17.345	.29413	.65538

#1	.00125	.05159	.01261	103.45	.20640
#2	.00065	.05206	.00986	103.88	.20832

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-1-C Acquired: 10/26/2018 13:13:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	94.332	3.4902	.11083	147.10	.26758
Stddev	.155	.0084	.00066	1.32	.00035
%RSD	.16447	.23947	.59617	.89661	.13175

#1	94.222	3.4843	.11129	146.17	.26733
#2	94.442	3.4961	.11036	148.04	.26783

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.27911	F 253.8	1.1721	-.00241	35.485
Stddev	.00128	.2	.0024	.00261	.493
%RSD	.45928	.0696	.20292	108.37	1.3901

#1	.28001	253.6	1.1737	-.00426	35.833
#2	.27820	253.9	1.1704	-.00056	35.136

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00158	2.8341	-.00370	-.00073	.00409
Stddev	.00016	.0140	.00012	.00117	.00029
%RSD	10.248	.49547	3.3105	161.28	7.0989

#1	.00146	2.8441	-.00379	-.00155	.00388
#2	.00169	2.8242	-.00362	.00010	.00429

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-1-C Acquired: 10/26/2018 13:13:59 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg F 44.448
 Stddev .168
 %RSD .37833

#1 44.329
 #2 44.567

Check ? Chk Fail
 High Limit 18.000
 Low Limit -.01000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1929.6	1250.6	37423.	3283.7
Stddev	3.2	2.5	45.	16.8
%RSD	.16656	.20086	.12083	.51131

#1	1931.9	1252.3	37455.	3295.5
#2	1927.3	1248.8	37391.	3271.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.533%	75.241%	78.379%	88.830%
Range				

Sample Name: 480-143948-A-2-C Acquired: 10/26/2018 13:17:58 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00097	.02435	.00898	2.7995	.68962
Stddev	.00036	.01108	.00088	.0061	.00288
%RSD	37.182	45.492	9.8419	.21807	.41821

#1	-.00072	.01651	.00960	2.8038	.68758
#2	-.00123	.03218	.00835	2.7952	.69166

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	F 2714.5	1.1692	.0053	.20947
Stddev	.00002	10.3	.0018	.0127	.00025
%RSD	51.811	.37953	.15445	240.6	.11946

#1	.00005	2707.2	1.1705	-.0037	.20930
#2	.00002	2721.8	1.1679	.0143	.20965

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00432	.16047	.00481	152.88	.16853
Stddev	.00035	.00154	.00308	.10	.00064
%RSD	8.1824	.96274	63.953	.06626	.38207

#1	.00407	.15937	.00264	152.95	.16899
#2	.00457	.16156	.00699	152.81	.16808

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-C Acquired: 10/26/2018 13:17:58 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	98.866	2.2126	.11098	192.14	.18533
Stddev	.137	.0013	.00093	.06	.00046
%RSD	.13821	.06046	.83732	.02997	.24692

#1	98.769	2.2135	.11164	192.18	.18500
#2	98.962	2.2116	.11032	192.10	.18565

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.26545	F 377.2	1.1716	.00851	36.096
Stddev	.00196	.9	.0091	.00350	.549
%RSD	.73817	.2454	.77767	41.179	1.5208

#1	.26406	377.9	1.1781	.00603	36.484
#2	.26683	376.6	1.1652	.01099	35.708

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00153	2.8681	-.00110	-.00257	.01911
Stddev	.00009	.0258	.00053	.00197	.00027
%RSD	5.7448	.90021	48.015	76.544	1.4230

#1	.00147	2.8498	-.00148	-.00397	.01930
#2	.00159	2.8864	-.00073	-.00118	.01892

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-C Acquired: 10/26/2018 13:17:58 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 25.966**
 Stddev .115
 %RSD .44161

#1 26.047
 #2 25.885

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1901.2	1232.7	36867.	3273.5
Stddev	2.4	2.2	43.	3.1
%RSD	.12649	.17656	.11590	.09407

#1	1899.5	1231.2	36898.	3275.7
#2	1902.9	1234.3	36837.	3271.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.538%	74.169%	77.216%	88.555%
Range				

Sample Name: 480-143948-A-2-Csd@5 Acquired: 10/26/2018 13:21:57 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.02362	.00304	.46120	.15696
Stddev	.00007	.00714	.00122	.00025	.00092
%RSD	12.798	30.229	40.210	.05455	.58421

#1	-.00057	.02867	.00217	.46102	.15760
#2	-.00047	.01857	.00390	.46138	.15631

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	628.21	.20895	.0119	.04584
Stddev	.00009	1.79	.00014	.0201	.00025
%RSD	587.23	.28502	.06734	169.3	.53652

#1	.00008	629.48	.20905	-.0023	.04567
#2	-.00005	626.95	.20885	.0261	.04601

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.01911	.00164	23.493	.03757
Stddev	.00002	.00006	.00156	.038	.00061
%RSD	2.6241	.32452	95.034	.16045	1.6315

#1	.00060	.01915	.00054	23.519	.03713
#2	.00058	.01906	.00275	23.466	.03800

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-Csd@5 Acquired: 10/26/2018 13:21:57 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.305	.60025	.02284	33.076	.04553
Stddev	.029	.00140	.00013	.014	.00026
%RSD	.14247	.23244	.54733	.04374	.57002

#1	20.325	.60123	.02293	33.087	.04571
#2	20.284	.59926	.02275	33.066	.04535

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05348	58.85	.22165	-.00357	7.0685
Stddev	.00065	.14	.00023	.00274	.1227
%RSD	1.2132	.2418	.10497	76.753	1.7358

#1	.05393	58.95	.22181	-.00551	7.1552
#2	.05302	58.75	.22148	-.00163	6.9817

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00086	.57332	-.00057	-.00028	.00270
Stddev	.00027	.00093	.00005	.00040	.00018
%RSD	32.097	.16304	9.2702	142.44	6.4904

#1	.00105	.57398	-.00061	.00000	.00258
#2	.00066	.57266	-.00053	-.00056	.00282

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-Csd@5 Acquired: 10/26/2018 13:21:57 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **8.0967**
 Stddev .0485
 %RSD .59852

#1 **8.1310**
 #2 **8.0625**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2347.5	1432.6	42354.	3449.9
Stddev	.5	.6	142.	4.8
%RSD	.02160	.03994	.33529	.13862

#1	2347.1	1433.0	42254.	3446.5
#2	2347.8	1432.2	42455.	3453.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.157%	86.194%	88.707%	93.326%
Range				

Sample Name: 480-143948-A-2-Cpds Acquired: 10/26/2018 13:25:47 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1336	.06004	1.1518	2.3430	1.7524
Stddev	.0001	.01631	.0036	.0066	.0029
%RSD	.01302	27.164	.30852	.28332	.16386

#1	1.1335	.07157	1.1493	2.3383	1.7503
#2	1.1337	.04851	1.1543	2.3477	1.7544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.92892	F 2629.4	2.2471	-.0078	1.1984
Stddev	.00062	3.5	.0068	.0123	.0010
%RSD	.06658	.13468	.30254	157.2	.08516

#1	.92936	2626.9	2.2423	.0009	1.1977
#2	.92848	2631.9	2.2519	-.0165	1.1991

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.92861	1.1867	.00733	129.69	.17278
Stddev	.00110	.0004	.00057	.41	.00055
%RSD	.11816	.03755	7.7499	.31394	.31631

#1	.92938	1.1870	.00693	129.40	.17239
#2	.92783	1.1863	.00773	129.98	.17316

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-Cpds Acquired: 10/26/2018 13:25:47 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	96.040	3.6989	1.0659	171.32	1.1691
Stddev	.054	.0064	.0031	.09	.0024
%RSD	.05639	.17418	.28574	.05387	.20093

#1	96.079	3.7034	1.0638	171.26	1.1674
#2	96.002	3.6943	1.0681	171.39	1.1707

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3004	F 318.9	2.2516	1.2047	36.120
Stddev	.0056	1.7	.0042	.0040	.380
%RSD	.43059	.5479	.18711	.32843	1.0524

#1	1.2965	317.7	2.2486	1.2075	36.389
#2	1.3044	320.1	2.2546	1.2019	35.852

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00154	2.8661	-.00177	.90737	.98250
Stddev	.00031	.0039	.00033	.00020	.00034
%RSD	20.429	.13520	18.653	.02156	.03511

#1	.00132	2.8634	-.00154	.90723	.98274
#2	.00176	2.8689	-.00201	.90751	.98225

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-Cpds Acquired: 10/26/2018 13:25:47 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 34.800**
 Stddev .042
 %RSD .12105

#1 34.830
 #2 34.770

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1912.1	1240.4	37059.	3255.2
Stddev	.4	3.7	106.	5.4
%RSD	.02037	.29754	.28573	.16505

#1	1911.8	1243.0	36984.	3259.0
#2	1912.4	1237.8	37134.	3251.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.919%	74.631%	77.617%	88.060%
Range				

Sample Name: 480-143948-A-2-D MS Acquired: 10/26/2018 13:29:39 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1077	.06459	1.1525	2.7362	1.6528
Stddev	.0048	.01062	.0085	.0095	.0124
%RSD	.43289	16.445	.73600	.34826	.75159

#1	1.1110	.05708	1.1465	2.7295	1.6616
#2	1.1043	.07210	1.1585	2.7430	1.6441

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.91824	F 2665.2	2.2642	.0222	1.1589
Stddev	.00336	8.9	.0032	.0029	.0002
%RSD	.36570	.33567	.14272	12.97	.01470

#1	.92061	2658.9	2.2619	.0202	1.1588
#2	.91586	2671.6	2.2665	.0243	1.1590

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.90329	1.1950	1.9693	149.72	.15607
Stddev	.00192	.0006	.0088	.70	.00199
%RSD	.21260	.05475	.44754	.46940	1.2762

#1	.90465	1.1955	1.9755	150.22	.15748
#2	.90194	1.1946	1.9631	149.22	.15466

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-D MS Acquired: 10/26/2018 13:29:39 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	96.713	3.0439	1.0532	189.56	1.1350
Stddev	.195	.0074	.0015	1.84	.0004
%RSD	.20129	.24451	.14742	.96961	.03611

#1	96.851	3.0492	1.0543	190.86	1.1353
#2	96.576	3.0387	1.0521	188.26	1.1347

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2647	F 369.1	2.2080	1.1819	35.259
Stddev	.0006	.2	.0010	.0097	.710
%RSD	.04893	.0569	.04316	.81676	2.0126

#1	1.2652	369.3	2.2073	1.1751	35.761
#2	1.2643	369.0	2.2086	1.1888	34.757

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00196	3.7882	-.00073	.89340	.96839
Stddev	.00102	.0208	.00063	.00102	.00346
%RSD	52.353	.54937	87.001	.11435	.35703

#1	.00123	3.8030	-.00028	.89412	.97084
#2	.00268	3.7735	-.00117	.89268	.96595

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-D MS Acquired: 10/26/2018 13:29:39 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 26.073**
 Stddev .146
 %RSD .55932

#1 26.176
 #2 25.970

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1897.2	1230.1	36891.	3244.2
Stddev	1.0	1.6	62.	5.5
%RSD	.05253	.12751	.16937	.16854

#1	1896.5	1231.2	36847.	3240.3
#2	1897.9	1229.0	36935.	3248.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.399%	74.013%	77.265%	87.761%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 13:33:39 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48435	23.467	.48186	.47310	.48648	.47006	24.066	.49224
Stddev	.00175	.046	.00491	.00034	.00137	.00177	.006	.00023
%RSD	.36100	.19497	1.0199	.07164	.28089	.37557	.02417	.04742
#1	.48559	23.435	.48533	.47286	.48745	.46881	24.062	.49241
#2	.48312	23.500	.47838	.47334	.48551	.47131	24.070	.49208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0041	.47488	.48107	.48510	23.701	23.777	.46848	23.533
Stddev	.0323	.00036	.00237	.00002	.073	.010	.00023	.002
%RSD	789.4	.07495	.49187	.00424	.30827	.04320	.04811	.00666
#1	.0187	.47513	.48274	.48511	23.649	23.770	.46832	23.532
#2	-.0269	.47463	.47940	.48508	23.753	23.784	.46864	23.534

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48968	.49090	23.270	.46913	.47527	24.86	.49825	.48481
Stddev	.00008	.00017	.092	.00087	.00153	.00	.00171	.00232
%RSD	.01712	.03491	.39555	.18609	.32100	.0103	.34314	.47891
#1	.48962	.49102	23.205	.46852	.47419	24.86	.49704	.48645
#2	.48974	.49078	23.335	.46975	.47635	24.86	.49946	.48317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 13:33:39 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.610	.48790	.48223	.47966	.46838	.47782	.47136
Stddev	.267	.00031	.00170	.00002	.00077	.00271	.00566
%RSD	1.0851	.06277	.35336	.00472	.16526	.56753	1.2001
#1	24.421	.48768	.48103	.47964	.46783	.47974	.46736
#2	24.799	.48811	.48344	.47967	.46892	.47590	.47536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2648.0	1553.7	45839.	3630.4
Stddev	.6	.8	91.	8.8
%RSD	.02293	.05041	.19820	.24287
#1	2647.6	1553.2	45774.	3636.7
#2	2648.5	1554.3	45903.	3624.2

Sample Name: CCB-4957862 Acquired: 10/26/2018 13:37:22 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00528	-.00039	.00280	.00002	-.00000	.01363	.00003
Stddev	.00017	.02361	.00061	.00042	.00000	.00002	.00000	.00008
%RSD	454.48	447.42	155.83	14.969	12.016	5709.2	.00867	239.43

#1	.00008	.01142	-.00082	.00310	.00002	.00002	.01363	-.00002
#2	-.00016	-.02197	.00004	.00250	.00002	-.00002	.01363	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0029	-.00013	.00035	-.00019	-.00170	.05735	.00240	-.00043
Stddev	.0008	.00017	.00001	.00012	.00027	.02826	.00120	.00056
%RSD	28.89	133.16	2.4795	65.308	16.092	49.280	49.909	130.31

#1	-.0023	-.00025	.00035	-.00028	-.00151	.07733	.00155	-.00082
#2	-.0035	-.00001	.00034	-.00010	-.00189	.03736	.00325	-.00003

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00139	.05106	-.00037	-.00032	.0271	.00337	-.00130
Stddev	.00002	.00025	.00251	.00009	.00044	.0040	.00019	.00244
%RSD	42.236	18.102	4.9155	23.561	136.46	14.66	5.7594	188.69

#1	.00003	.00121	.04928	-.00043	-.00063	.0299	.00323	.00043
#2	.00005	.00156	.05283	-.00031	-.00001	.0243	.00350	-.00302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 13:37:22 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09336	.00030	.00002	-.00009	-.00136	-.00000	.00044
Stddev	.01321	.00045	.00009	.00011	.00036	.00019	.00041
%RSD	14.153	148.45	412.09	117.47	26.316	7806.8	93.888

#1	.08402	.00062	-.00004	-.00002	-.00161	-.00014	.00073
#2	.10270	-.00002	.00009	-.00017	-.00110	.00013	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2829.7	1607.0	47494.	3675.1
Stddev	2.9	8.3	224.	5.9
%RSD	.10317	.51390	.47101	.16109

#1	2827.6	1601.2	47336.	3670.9
#2	2831.8	1612.9	47652.	3679.3

Sample Name: CCVL-4954076 Acquired: 10/26/2018 13:41:14 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00598	.18784	.01554	.02090	.00202	.00198	.51677	.00200
Stddev	.00013	.00734	.00062	.00029	.00001	.00005	.00091	.00002
%RSD	2.2163	3.9054	3.9888	1.3988	.32473	2.5047	.17543	1.1684
#1	.00607	.18266	.01598	.02110	.00203	.00201	.51741	.00198
#2	.00588	.19303	.01511	.02069	.00202	.00194	.51613	.00201

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0041	.00374	.00391	.00939	.04844	.49297	.03027	.20004
Stddev	.0151	.00011	.00024	.00029	.00036	.02532	.00057	.00232
%RSD	371.6	3.0614	6.1364	3.1058	.73955	5.1361	1.8855	1.1596
#1	-.0147	.00366	.00408	.00918	.04869	.47507	.03067	.20168
#2	.0066	.00382	.00374	.00960	.04818	.51087	.02987	.19840

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00282	.00991	.96833	.00965	.00880	.2256	.01976	.02019
Stddev	.00003	.00002	.00600	.00011	.00173	.0026	.00110	.00284
%RSD	1.0681	.16156	.61926	1.1661	19.629	1.132	5.5828	14.052
#1	.00284	.00992	.97257	.00973	.00758	.2274	.01898	.01818
#2	.00279	.00990	.96409	.00957	.01002	.2237	.02054	.02220

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/26/2018 13:41:14 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47814	.01006	.00485	.00446	.01800	.00449	.01177
Stddev	.01066	.00060	.00003	.00010	.00056	.00014	.00019
%RSD	2.2299	5.9300	.60498	2.2903	3.0951	3.1246	1.6275
#1	.47060	.01048	.00483	.00439	.01839	.00439	.01163
#2	.48568	.00963	.00487	.00453	.01761	.00459	.01190

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2791.3	1602.9	47070.	3671.6
Stddev	.8	.1	59.	4.7
%RSD	.02829	.00611	.12468	.12899
#1	2790.8	1603.0	47029.	3674.9
#2	2791.9	1602.8	47112.	3668.2

Sample Name: 480-143948-A-2-E MSD Acquired: 10/26/2018 13:45:05 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0571	.03649	1.0957	2.5869	1.5786
Stddev	.0014	.01440	.0030	.0069	.0071
%RSD	.13642	39.457	.27406	.26822	.45114

#1	1.0581	.04667	1.0978	2.5918	1.5836
#2	1.0561	.02631	1.0936	2.5820	1.5735

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.88217	F 2578.8	2.1494	.0133	1.1107
Stddev	.00693	.8	.0072	.0069	.0015
%RSD	.78528	.02914	.33328	51.58	.13938

#1	.88707	2578.3	2.1545	.0182	1.1118
#2	.87728	2579.4	2.1444	.0085	1.1096

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.86070	1.1411	.00599	143.95	.14518
Stddev	.00299	.0006	.00370	.77	.00045
%RSD	.34733	.05246	61.750	.53418	.31114

#1	.86282	1.1416	.00861	144.50	.14549
#2	.85859	1.1407	.00337	143.41	.14486

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-E MSD Acquired: 10/26/2018 13:45:05 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	92.839	2.9127	1.0047	180.83	1.0952
Stddev	.147	.0061	.0011	.68	.0001
%RSD	.15789	.20921	.11348	.37432	.00456

#1	92.943	2.9170	1.0055	181.31	1.0952
#2	92.736	2.9084	1.0039	180.35	1.0951

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2129	F 352.0	2.0764	1.1143	33.051
Stddev	.0001	.2	.0107	.0017	.725
%RSD	.00922	.0595	.51730	.15432	2.1928

#1	1.2130	352.2	2.0840	1.1131	33.563
#2	1.2128	351.9	2.0688	1.1155	32.538

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00493	3.6235	-.00115	.86631	.92160
Stddev	.00056	.0219	.00050	.00144	.00288
%RSD	11.359	.60460	43.163	.16652	.31215

#1	.00453	3.6390	-.00080	.86733	.92364
#2	.00533	3.6080	-.00150	.86529	.91957

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-2-E MSD Acquired: 10/26/2018 13:45:05 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg F 24.930
Stddev .110
%RSD .44195

#1 25.008
#2 24.852

Check ? Chk Fail
High Limit 18.000
Low Limit -.01000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1903.7	1240.9	37223.	3263.9
Stddev	1.4	2.0	172.	14.4
%RSD	.07487	.16340	.46223	.44266

#1	1902.7	1239.5	37101.	3253.7
#2	1904.8	1242.3	37345.	3274.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.627%	74.660%	77.960%	88.296%
Range				

Sample Name: 480-143948-A-3-C Acquired: 10/26/2018 13:49:03 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00131	.20086	.00908	2.2105	.74665
Stddev	.00022	.02334	.00606	.0045	.00013
%RSD	17.158	11.618	66.711	.20356	.01711

#1	.00115	.18436	.00480	2.2073	.74674
#2	.00147	.21736	.01336	2.2137	.74656

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	F 2481.1	1.1535	.0082	.16400
Stddev	.00000	6.9	.0027	.0236	.00016
%RSD	.30146	.27720	.23753	287.0	.09996

#1	.00017	2485.9	1.1516	-.0085	.16388
#2	.00017	2476.2	1.1555	.0249	.16411

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00326	.18081	.06401	127.90	.15462
Stddev	.00009	.00081	.00313	.05	.00027
%RSD	2.7881	.44575	4.8934	.03998	.17634

#1	.00333	.18138	.06180	127.86	.15442
#2	.00320	.18024	.06623	127.94	.15481

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-3-C Acquired: 10/26/2018 13:49:03 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	104.59	3.0797	.08516	178.43	.21771
Stddev	.37	.0096	.00004	.19	.00015
%RSD	.35495	.31159	.04996	.10432	.06908

#1	104.86	3.0865	.08513	178.56	.21761
#2	104.33	3.0730	.08519	178.30	.21782

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47387	F 282.7	1.0060	.00007	37.420
Stddev	.00429	.5	.0049	.00403	.908
%RSD	.90632	.1642	.48708	5612.1	2.4258

#1	.47084	282.4	1.0095	-.00278	38.062
#2	.47691	283.0	1.0026	.00292	36.778

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00435	3.2605	.00931	-.00234	.00547
Stddev	.00099	.0048	.00094	.00269	.00055
%RSD	22.834	.14676	10.138	114.93	10.057

#1	.00505	3.2571	.00998	-.00044	.00586
#2	.00365	3.2639	.00864	-.00424	.00508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-3-C Acquired: 10/26/2018 13:49:03 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 58.308**
 Stddev .116
 %RSD .19930

#1 58.390
 #2 58.226

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1913.9	1247.6	37368.	3269.0
Stddev	.5	.0	82.	12.3
%RSD	.02765	.00124	.22065	.37575

#1	1913.6	1247.5	37310.	3260.3
#2	1914.3	1247.6	37427.	3277.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.984%	75.061%	78.265%	88.432%
Range				

Sample Name: 480-143948-A-4-C Acquired: 10/26/2018 13:53:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00095	.06824	.00706	3.1726	.85021
Stddev	.00003	.02661	.00141	.0016	.00150
%RSD	3.4097	38.995	19.970	.05172	.17618

#1	-.00097	.04942	.00806	3.1715	.85127
#2	-.00093	.08705	.00606	3.1738	.84915

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	F 2592.5	.86425	.0233	.19061
Stddev	.00004	14.8	.00021	.0219	.00013
%RSD	61.484	.57243	.02451	94.03	.06985

#1	.00010	2603.0	.86410	.0078	.19051
#2	.00004	2582.1	.86440	.0388	.19070

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00180	.04395	.01398	119.77	.17123
Stddev	.00035	.00057	.00007	.17	.00076
%RSD	19.510	1.2873	.50841	.14055	.44336

#1	.00205	.04435	.01403	119.89	.17069
#2	.00155	.04355	.01393	119.65	.17177

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-4-C Acquired: 10/26/2018 13:53:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	103.29	2.3008	.09973	167.24	.31690
Stddev	.26	.0035	.00022	.19	.00020
%RSD	.24826	.15067	.22107	.11131	.06352

#1	103.11	2.2983	.09988	167.37	.31705
#2	103.48	2.3032	.09957	167.11	.31676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16286	F 286.3	1.0893	-.00437	35.684
Stddev	.00177	.0	.0012	.00102	.536
%RSD	1.0877	.0125	.11044	23.276	1.5033

#1	.16161	286.3	1.0902	-.00509	36.064
#2	.16412	286.3	1.0885	-.00365	35.305

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00248	3.3135	.00114	-.00110	.01145
Stddev	.00029	.0117	.00122	.00127	.00016
%RSD	11.838	.35240	106.56	115.18	1.4370

#1	.00227	3.3217	.00201	-.00020	.01133
#2	.00269	3.3052	.00028	-.00200	.01156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-4-C Acquired: 10/26/2018 13:53:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **F 22.389**
Stddev .063
%RSD .28012

#1 22.345
#2 22.434

Check ? **Chk Fail**
High Limit **18.000**
Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1903.3	1242.1	37087.	3256.2
Stddev	.5	.5	31.	5.1
%RSD	.02585	.03846	.08271	.15740

#1	1903.0	1242.4	37065.	3252.6
#2	1903.7	1241.7	37108.	3259.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.612%	74.731%	77.675%	88.088%
Range				

Sample Name: 480-143948-A-5-C Acquired: 10/26/2018 13:57:07 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.14399	.00695	2.8275	.71190
Stddev	.00022	.00893	.00419	.0060	.00463
%RSD	54.921	6.2044	60.218	.21366	.64975

#1	.00025	.13767	.00399	2.8317	.71517
#2	.00056	.15030	.00991	2.8232	.70863

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	F 2506.9	1.0337	.0153	.11439
Stddev	.00001	12.5	.0004	.0239	.00045
%RSD	10.153	.50018	.03715	155.8	.39000

#1	.00012	2515.8	1.0340	.0322	.11471
#2	.00014	2498.0	1.0334	-.0016	.11408

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00265	.36078	.06888	123.49	.16118
Stddev	.00020	.00160	.00108	.52	.00037
%RSD	7.6969	.44341	1.5613	.42059	.22762

#1	.00251	.36191	.06812	123.86	.16144
#2	.00280	.35965	.06964	123.13	.16092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-5-C Acquired: 10/26/2018 13:57:07 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	114.31	5.3409	.09823	183.38	.28471
Stddev	.32	.0129	.00022	1.58	.00004
%RSD	.27628	.24229	.22563	.85963	.01567

#1	114.53	5.3501	.09839	184.50	.28468
#2	114.09	5.3318	.09807	182.27	.28474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19360	F 259.7	.86869	-.00458	36.214
Stddev	.00118	.1	.00446	.00069	.679
%RSD	.60817	.0216	.51340	15.114	1.8759

#1	.19277	259.7	.87185	-.00507	36.694
#2	.19443	259.8	.86554	-.00409	35.733

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00319	3.6856	.01030	-.00333	.00440
Stddev	.00006	.0392	.00038	.00111	.00005
%RSD	1.8591	1.0635	3.6755	33.391	1.0405

#1	.00323	3.7133	.01003	-.00254	.00437
#2	.00315	3.6579	.01056	-.00411	.00443

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-5-C Acquired: 10/26/2018 13:57:07 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg F 35.056
Stddev .104
%RSD .29557

#1 35.130
#2 34.983

Check ? Chk Fail
High Limit 18.000
Low Limit -.01000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1909.8	1245.2	37286.	3276.9
Stddev	1.6	.3	36.	19.7
%RSD	.08209	.02420	.09727	.60070

#1	1908.7	1245.4	37260.	3262.9
#2	1910.9	1245.0	37312.	3290.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.840%	74.920%	78.093%	88.646%
Range				

Sample Name: 480-143948-A-6-C Acquired: 10/26/2018 14:01:15 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	.09020	.02924	2.1793	.67005
Stddev	.00032	.03155	.00023	.0009	.00228
%RSD	40.677	34.978	.77397	.03984	.33953

#1	-.00056	.11251	.02908	2.1800	.66844
#2	-.00102	.06789	.02940	2.1787	.67165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	F 2564.6	.00310	.0435	.00023
Stddev	.00001	17.3	.00012	.0120	.00044
%RSD	44.716	.67312	3.9374	27.56	192.95

#1	-.00003	2552.4	.00302	.0520	.00054
#2	-.00002	2576.9	.00319	.0350	-.00008

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01799	.09125	.03476	133.01	.15121
Stddev	.00018	.00020	.00099	.34	.00040
%RSD	.97610	.22338	2.8627	.25344	.26228

#1	.01787	.09110	.03546	132.77	.15093
#2	.01812	.09139	.03405	133.25	.15149

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-6-C Acquired: 10/26/2018 14:01:15 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	42.918	.00239	.09395	192.47	.00907
Stddev	.081	.00003	.00031	.81	.00010
%RSD	.18918	1.2286	.32839	.42268	1.1141

#1	42.861	.00241	.09373	191.89	.00899
#2	42.976	.00237	.09417	193.04	.00914

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00701	F 277.0	.96911	.00410	19.028
Stddev	.00108	.2	.00180	.00285	.093
%RSD	15.467	.0875	.18524	69.490	.49134

#1	-.00624	276.9	.96784	.00209	18.962
#2	-.00777	277.2	.97038	.00612	19.094

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00356	3.0658	.00752	-.00188	.02908
Stddev	.00071	.0335	.00005	.00145	.00033
%RSD	19.988	1.0916	.62838	76.996	1.1514

#1	.00407	3.0421	.00755	-.00086	.02884
#2	.00306	3.0895	.00749	-.00290	.02931

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-6-C Acquired: 10/26/2018 14:01:15 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03372**
 Stddev .00067
 %RSD 1.9907

#1 **.03324**
 #2 **.03419**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1921.3	1251.3	37138.	3256.0
Stddev	2.0	.9	58.	19.8
%RSD	.10347	.07493	.15504	.60940

#1	1922.7	1252.0	37179.	3270.0
#2	1919.9	1250.6	37097.	3241.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.241%	75.286%	77.782%	88.080%
Range				

Sample Name: 480-143948-A-7-C Acquired: 10/26/2018 14:05:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	.04188	.03225	2.2392	1.1858
Stddev	.00049	.00481	.00132	.0041	.0003
%RSD	64.272	11.483	4.0824	.18164	.02538

#1	-.00042	.03848	.03318	2.2421	1.1856
#2	-.00111	.04528	.03132	2.2363	1.1860

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	F 2365.1	.22051	.0322	.03824
Stddev	.00004	6.2	.00073	.0118	.00050
%RSD	433.65	.26021	.32890	36.56	1.3061

#1	.00002	2360.8	.22102	.0405	.03860
#2	-.00004	2369.5	.21999	.0238	.03789

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02639	.07256	.00704	123.35	.14154
Stddev	.00077	.00122	.00364	.09	.00094
%RSD	2.9228	1.6837	51.693	.07579	.66757

#1	.02694	.07170	.00447	123.42	.14221
#2	.02585	.07343	.00961	123.28	.14087

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-7-C Acquired: 10/26/2018 14:05:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	63.133	1.8451	.09614	176.04	.06676
Stddev	.042	.0007	.00025	.14	.00017
%RSD	.06675	.04020	.25681	.07962	.25116

#1	63.103	1.8457	.09631	176.14	.06687
#2	63.163	1.8446	.09596	175.94	.06664

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	F 227.5	1.3492	-.00129	33.124
Stddev	.00035	.6	.0081	.00123	.650
%RSD	117.91	.2621	.59823	95.685	1.9631

#1	.00054	227.9	1.3549	-.00042	33.584
#2	.00005	227.0	1.3435	-.00216	32.665

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00222	3.0629	-.00153	-.00126	.02035
Stddev	.00116	.0104	.00041	.00068	.00027
%RSD	52.263	.33968	26.612	54.119	1.3160

#1	.00140	3.0556	-.00182	-.00174	.02054
#2	.00304	3.0703	-.00124	-.00078	.02016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-7-C Acquired: 10/26/2018 14:05:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.51270**
Stddev .00065
%RSD .12738

#1 **.51224**
#2 **.51316**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1946.7	1263.3	37758.	3297.9
Stddev	4.2	4.0	126.	5.8
%RSD	.21580	.31488	.33248	.17734

#1	1943.8	1260.5	37669.	3302.1
#2	1949.7	1266.2	37847.	3293.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.132%	76.011%	79.081%	89.216%
Range				

Sample Name: 480-143948-A-8-C Acquired: 10/26/2018 14:09:27 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00118	.05496	.00382	2.6258	.88925
Stddev	.00049	.00034	.00562	.0000	.00428
%RSD	41.419	.62356	147.03	.00073	.48088

#1	-.00083	.05520	-.00015	2.6257	.89228
#2	-.00152	.05472	.00780	2.6258	.88623

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	F 2126.8	.86529	.0322	.16497
Stddev	.00001	12.4	.00042	.0100	.00005
%RSD	18.157	.58433	.04883	31.16	.02834

#1	.00007	2135.6	.86559	.0251	.16500
#2	.00009	2118.0	.86500	.0393	.16493

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	.16494	.00771	89.318	.12359
Stddev	.00033	.00018	.00157	.445	.00065
%RSD	46.874	.11106	20.377	.49817	.52894

#1	.00047	.16481	.00882	89.633	.12405
#2	.00093	.16507	.00660	89.003	.12313

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-8-C Acquired: 10/26/2018 14:09:27 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	79.546	1.9286	.07258	132.10	.17863
Stddev	.152	.0052	.00008	.72	.00013
%RSD	.19119	.26750	.10384	.54725	.07286

#1	79.653	1.9323	.07263	132.61	.17853
#2	79.438	1.9250	.07253	131.59	.17872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08178	F 178.3	.65811	-.00312	27.767
Stddev	.00366	.4	.00196	.00020	.495
%RSD	4.4785	.2429	.29743	6.5251	1.7828

#1	.08437	178.6	.65949	-.00298	28.117
#2	.07919	178.0	.65672	-.00326	27.417

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00100	2.8445	-.00220	-.00193	.00525
Stddev	.00246	.0330	.00030	.00007	.00011
%RSD	245.29	1.1586	13.555	3.5698	2.0896

#1	-.00074	2.8678	-.00199	-.00198	.00533
#2	.00275	2.8212	-.00241	-.00188	.00518

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-8-C Acquired: 10/26/2018 14:09:27 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg F 20.067
 Stddev .095
 %RSD .47575

#1 20.134
 #2 19.999

Check ? Chk Fail
 High Limit 18.000
 Low Limit -.01000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1982.2	1279.9	38185.	3319.1
Stddev	.7	1.9	139.	28.3
%RSD	.03363	.14841	.36310	.85290

#1	1981.7	1278.5	38087.	3299.1
#2	1982.6	1281.2	38283.	3339.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.372%	77.006%	79.975%	89.789%
Range				

Sample Name: 480-143948-A-9-C Acquired: 10/26/2018 14:13:22 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00128	.08917	.01415	1.6268	.77750
Stddev	.00003	.00956	.00319	.0019	.00067
%RSD	2.2013	10.723	22.540	.11916	.08587

#1	-.00130	.08241	.01190	1.6282	.77703
#2	-.00126	.09593	.01641	1.6254	.77797

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	F 2113.9	.00479	.0268	.00207
Stddev	.00005	3.0	.00020	.0105	.00022
%RSD	180.61	.13979	4.1014	39.02	10.426

#1	.00006	2116.0	.00493	.0342	.00192
#2	-.00001	2111.8	.00465	.0194	.00222

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01974	.36909	.03889	79.623	.12372
Stddev	.00018	.00073	.00106	.067	.00067
%RSD	.91030	.19725	2.7140	.08449	.54216

#1	.01961	.36960	.03815	79.576	.12419
#2	.01986	.36857	.03964	79.671	.12324

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-9-C Acquired: 10/26/2018 14:13:22 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.543	.01167	.07579	115.58	.02478
Stddev	.132	.00009	.00003	.21	.00004
%RSD	.23735	.75952	.03928	.18053	.17742

#1	55.450	.01173	.07577	115.72	.02475
#2	55.636	.01160	.07581	115.43	.02482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00544	F 232.0	1.1183	.00045	21.607
Stddev	.00072	.5	.0057	.00097	.012
%RSD	13.235	.2097	.50832	215.19	.05540

#1	.00595	232.3	1.1223	.00114	21.616
#2	.00493	231.6	1.1143	-.00024	21.599

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00440	2.4450	.00783	-.00322	.02587
Stddev	.00109	.0011	.00012	.00093	.00057
%RSD	24.679	.04549	1.5549	28.854	2.1963

#1	.00517	2.4442	.00774	-.00256	.02628
#2	.00363	2.4458	.00792	-.00387	.02547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-9-C Acquired: 10/26/2018 14:13:22 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.02947**
Stddev .00431
%RSD 14.624

#1 **.02642**
#2 **.03251**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1996.1	1280.9	38195.	3295.0
Stddev	1.4	.4	51.	8.6
%RSD	.07216	.03412	.13429	.25963

#1	1997.1	1280.6	38231.	3301.0
#2	1995.1	1281.2	38159.	3288.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.859%	77.066%	79.996%	89.136%
Range				

Sample Name: 480-143948-A-10-C Acquired: 10/26/2018 14:17:19 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00098	.04549	.01117	2.4644	.84751
Stddev	.00054	.01409	.00376	.0020	.00023
%RSD	54.909	30.978	33.681	.08253	.02770

#1	-.00135	.05545	.00851	2.4630	.84735
#2	-.00060	.03553	.01384	2.4659	.84768

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	F 2158.5	.45314	.0249	.11472
Stddev	.00000	14.3	.00013	.0032	.00040
%RSD	9.9794	.66346	.02873	12.88	.34598

#1	.00003	2148.4	.45324	.0226	.11500
#2	.00003	2168.7	.45305	.0272	.11444

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00276	.12188	.01645	99.856	.12802
Stddev	.00008	.00005	.00123	.066	.00037
%RSD	3.0090	.04120	7.4722	.06630	.28976

#1	.00270	.12192	.01732	99.809	.12828
#2	.00282	.12185	.01558	99.903	.12776

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-10-C Acquired: 10/26/2018 14:17:19 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	76.425	2.8254	.07622	152.13	.11390
Stddev	.031	.0016	.00003	.33	.00053
%RSD	.04025	.05570	.04587	.21628	.46176

#1	76.446	2.8265	.07625	151.90	.11353
#2	76.403	2.8243	.07620	152.36	.11428

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07647	F 212.3	1.1976	-.00400	29.437
Stddev	.00080	.0	.0002	.00064	.151
%RSD	1.0447	.0096	.02005	15.879	.51221

#1	.07704	212.3	1.1977	-.00355	29.543
#2	.07591	212.3	1.1974	-.00445	29.330

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00259	2.8904	.00029	-.00280	.00951
Stddev	.00077	.0008	.00067	.00071	.00022
%RSD	29.563	.02625	227.64	25.253	2.3374

#1	.00314	2.8910	.00077	-.00230	.00936
#2	.00205	2.8899	-.00018	-.00330	.00967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143948-A-10-C Acquired: 10/26/2018 14:17:19 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **4.9722**
 Stddev .0065
 %RSD .13095

#1 4.9768
 #2 4.9676

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1974.9	1277.1	37987.	3297.8
Stddev	.2	.9	20.	20.5
%RSD	.01065	.07205	.05302	.62024

#1	1975.1	1277.8	37973.	3312.2
#2	1974.8	1276.5	38001.	3283.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.118%	76.840%	79.560%	89.211%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 14:21:19 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48141	23.530	.47728	.46886	.48522	.47035	23.980	.48663
Stddev	.00036	.190	.00103	.00040	.00029	.00155	.036	.00038
%RSD	.07452	.80773	.21484	.08426	.06027	.33009	.15089	.07755
#1	.48166	23.395	.47655	.46858	.48543	.46925	23.955	.48637
#2	.48116	23.664	.47800	.46914	.48501	.47145	24.006	.48690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0036	.47383	.48023	.48158	23.839	23.727	.46086	23.337
Stddev	.0065	.00055	.00068	.00140	.109	.097	.00329	.013
%RSD	182.0	.11621	.14241	.29106	.45699	.40703	.71287	.05498
#1	.0010	.47422	.47975	.48257	23.762	23.659	.45854	23.328
#2	-.0082	.47344	.48072	.48059	23.916	23.795	.46319	23.346

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48885	.48587	23.231	.47085	.47357	24.52	.48861	.47715
Stddev	.00036	.00086	.158	.00063	.00044	.00	.00154	.00521
%RSD	.07463	.17673	.68118	.13410	.09275	.0055	.31500	1.0920
#1	.48911	.48648	23.119	.47040	.47388	24.52	.48752	.48084
#2	.48859	.48526	23.343	.47129	.47326	24.52	.48970	.47347

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 14:21:19 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.781	.48774	.48667	.47745	.46820	.47888	.46930
Stddev	.211	.00018	.00352	.00041	.00298	.00158	.00192
%RSD	.85273	.03726	.72402	.08563	.63541	.33009	.40834
#1	24.632	.48761	.48418	.47774	.46610	.48000	.47066
#2	24.931	.48786	.48916	.47716	.47031	.47776	.46795

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2642.8	1563.4	45825.	3612.1
Stddev	3.4	1.6	44.	1.9
%RSD	.12828	.10470	.09630	.05292
#1	2640.4	1562.2	45794.	3613.4
#2	2645.2	1564.5	45856.	3610.7

Sample Name: CCB-4957862 Acquired: 10/26/2018 14:25:02 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00461	.00125	.00296	.00001	.00006	.01661	-.00002
Stddev	.00012	.00375	.00052	.00031	.00001	.00003	.00066	.00012
%RSD	173.55	81.386	41.878	10.485	67.163	45.936	3.9898	609.10

#1	.00015	-.00727	.00088	.00318	.00001	.00008	.01614	-.00010
#2	-.00002	-.00196	.00162	.00274	.00002	.00004	.01708	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050	-.00017	.00007	-.00011	.00085	.09146	.00106	.00052
Stddev	.0062	.00001	.00020	.00001	.00242	.01948	.00012	.00173
%RSD	122.9	5.9638	269.37	7.6754	285.19	21.297	11.155	336.02

#1	.0094	-.00018	.00021	-.00011	-.00086	.07768	.00114	.00174
#2	.0007	-.00016	-.00007	-.00010	.00256	.10523	.00097	-.00071

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00109	.05119	-.00028	.00047	.0235	.00228	-.00066
Stddev	.00005	.00009	.00374	.00003	.00074	.0000	.00154	.00172
%RSD	77.654	8.6616	7.3076	9.4244	158.04	.1780	67.435	259.96

#1	.00003	.00116	.05384	-.00030	-.00006	.0235	.00119	-.00188
#2	.00011	.00102	.04855	-.00026	.00099	.0236	.00337	.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 14:25:02 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.10510	-.00018	.00006	-.00003	-.00095	.00003	.00076
Stddev	.01884	.00024	.00004	.00009	.00073	.00019	.00019
%RSD	17.926	134.97	66.920	332.98	76.969	550.67	25.036

#1	.09178	-.00001	.00003	.00004	-.00043	-.00010	.00062
#2	.11842	-.00035	.00009	-.00009	-.00147	.00017	.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2823.1	1611.3	47684.	3691.2
Stddev	.6	4.2	131.	.6
%RSD	.01962	.25944	.27575	.01585

#1	2823.4	1614.3	47777.	3690.8
#2	2822.7	1608.3	47591.	3691.6

Sample Name: CCVL-4954076 Acquired: 10/26/2018 14:31:50 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00603	.18414	.01463	.02103	.00202	.00197	.51358	.00197
Stddev	.00014	.00314	.00004	.00036	.00001	.00003	.00617	.00003
%RSD	2.2769	1.7070	.26592	1.7320	.55761	1.5475	1.2005	1.7321

#1	.00593	.18636	.01466	.02128	.00203	.00200	.50922	.00200
#2	.00613	.18192	.01460	.02077	.00201	.00195	.51794	.00195

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0072	.00366	.00356	.00920	.04724	.52498	.02817	.19996
Stddev	.0009	.00006	.00002	.00012	.00130	.00902	.00023	.00362
%RSD	13.01	1.6734	.69353	1.2832	2.7415	1.7183	.81329	1.8118

#1	-.0065	.00371	.00358	.00928	.04632	.53136	.02801	.20252
#2	-.0079	.00362	.00354	.00912	.04815	.51860	.02833	.19740

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00276	.00981	.95127	.00940	.00980	.2350	.02088	.02117
Stddev	.00003	.00040	.00364	.00020	.00007	.0014	.00086	.00230
%RSD	1.1214	4.0342	.38311	2.1512	.69381	.5904	4.1050	10.848

#1	.00278	.01009	.94870	.00954	.00984	.2360	.02027	.01955
#2	.00274	.00953	.95385	.00925	.00975	.2340	.02148	.02279

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 14:31:50 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49015	.00904	.00480	.00432	.01920	.00482	.01078
Stddev	.01762	.00068	.00007	.00039	.00015	.00007	.00002
%RSD	3.5951	7.5761	1.4212	8.9680	.76765	1.4484	.19009
#1	.47769	.00855	.00475	.00459	.01930	.00487	.01079
#2	.50261	.00952	.00484	.00404	.01909	.00477	.01076

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2793.6	1604.9	47262.	3677.6
Stddev	.6	.7	18.	21.1
%RSD	.02138	.04447	.03839	.57425
#1	2793.1	1604.4	47249.	3692.5
#2	2794.0	1605.4	47275.	3662.6

Sample Name: MB 480-441363/1-B Acquired: 10/26/2018 14:35:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00414	-.00067	.00170	.00018
Stddev	.00016	.01356	.00086	.00027	.00000
%RSD	562.33	327.58	127.89	15.631	2.4160

#1	-.00009	-.00545	-.00006	.00152	.00018
#2	.00014	.01372	-.00128	.00189	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.06424	-.00013	.0056	.00001
Stddev	.00001	.00316	.00004	.0122	.00017
%RSD	102.50	4.9154	29.245	218.9	1421.0

#1	.00000	.06648	-.00011	.0142	.00013
#2	.00001	.06201	-.00016	-.0031	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00039	.01559	.07718	.00210
Stddev	.00036	.00010	.00119	.00138	.00051
%RSD	99.989	24.931	7.6373	1.7834	24.199

#1	.00061	.00032	.01475	.07815	.00174
#2	.00010	.00046	.01643	.07620	.00246

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441363/1-B Acquired: 10/26/2018 14:35:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00373	.00019	.00012	.09936	.00020
Stddev	.00260	.00007	.00017	.00315	.00028
%RSD	69.568	34.585	149.20	3.1683	143.77

#1	.00190	.00024	.00024	.10159	-.00000
#2	.00557	.00014	-.00001	.09714	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.0509	.00011	.00242	.01000
Stddev	.00062	.0007	.00074	.00173	.01479
%RSD	119.54	1.353	662.50	71.670	147.92

#1	-.00008	.0513	-.00041	.00365	-.00046
#2	-.00096	.0504	.00063	.00119	.02046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.00016	-.00001	-.00026	-.00011
Stddev	.00015	.00004	.00002	.00018	.00015
%RSD	36.461	26.153	251.15	70.375	136.64

#1	-.00051	.00013	-.00002	-.00013	-.00000
#2	-.00030	.00019	.00001	-.00039	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441363/1-B Acquired: 10/26/2018 14:35:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00440
Stddev .00019
%RSD 4.2928

#1 .00454
#2 .00427

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2782.7	1592.0	47371.	3732.9
Stddev	.4	2.7	15.	17.2
%RSD	.01303	.17159	.03124	.46047

#1	2782.9	1590.1	47361.	3745.1
#2	2782.4	1593.9	47382.	3720.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.388%	95.785%	99.216%	100.98%
Range				

Sample Name: LCS 480-441363/2-B Acquired: 10/26/2018 14:39:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04652	9.2928	.19341	.19024	.19148
Stddev	.00021	.0300	.00052	.00023	.00054
%RSD	.45973	.32263	.26921	.11973	.28000

#1	.04668	9.2716	.19377	.19040	.19186
#2	.04637	9.3140	.19304	.19008	.19110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19202	9.3772	.19490	.0131	.18285
Stddev	.00057	.0320	.00036	.0037	.00061
%RSD	.29645	.34146	.18581	27.95	.33173

#1	.19161	9.3545	.19516	.0105	.18242
#2	.19242	9.3998	.19465	.0157	.18327

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18963	.18584	9.4695	9.0450	.17873
Stddev	.00056	.00011	.0159	.0219	.00045
%RSD	.29348	.06058	.16807	.24195	.25000

#1	.19003	.18592	9.4582	9.0295	.17904
#2	.18924	.18576	9.4807	9.0604	.17841

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441363/2-B Acquired: 10/26/2018 14:39:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.3184	.18742	.18828	8.9979	.18979
Stddev	.0193	.00023	.00089	.0037	.00015
%RSD	.20697	.12375	.47077	.04153	.08006

#1	9.3321	.18725	.18890	9.0005	.18968
#2	9.3048	.18758	.18765	8.9953	.18990

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18491	9.606	.18863	.19021	9.2762
Stddev	.00113	.052	.00053	.00245	.0740
%RSD	.60958	.5419	.28132	1.2903	.79735

#1	.18411	9.643	.18900	.19194	9.2239
#2	.18571	9.570	.18825	.18847	9.3285

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18453	.18893	.18573	.18502	.19020
Stddev	.00023	.00024	.00027	.00108	.00039
%RSD	.12435	.12731	.14347	.58316	.20464

#1	.18437	.18876	.18555	.18578	.18993
#2	.18469	.18910	.18592	.18426	.19048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441363/2-B Acquired: 10/26/2018 14:39:33 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19436**
 Stddev .00044
 %RSD .22831

#1 **.19468**
 #2 **.19405**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.9	1572.2	46151.	3680.5
Stddev	1.0	3.7	72.	6.2
%RSD	.03656	.23453	.15562	.16882

#1	2700.2	1569.6	46202.	3684.9
#2	2701.6	1574.8	46100.	3676.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.527%	94.595%	96.659%	99.566%
Range				

Sample Name: 480-143899-B-1-D Acquired: 10/26/2018 14:43:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.01161	.00014	.02498	.05122
Stddev	.00018	.00890	.00128	.00044	.00016
%RSD	39.481	76.641	891.77	1.7812	.30724

#1	-.00060	.01790	.00105	.02467	.05134
#2	-.00034	.00532	-.00076	.02530	.05111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	47.337	.00007	.0031	-.00007
Stddev	.00003	.158	.00001	.0078	.00007
%RSD	114.20	.33446	9.6352	247.4	92.251

#1	-.00005	47.225	.00007	.0086	-.00002
#2	-.00001	47.449	.00006	-.0024	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00002	.00748	1.6456	.00225
Stddev	.00027	.00008	.00285	.0129	.00015
%RSD	109.83	361.86	38.097	.78631	6.7575

#1	.00043	-.00003	.00950	1.6547	.00236
#2	.00005	.00008	.00547	1.6364	.00215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-D Acquired: 10/26/2018 14:43:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.3140	.00008	.00033	17.458	-.00011
Stddev	.0040	.00001	.00004	.092	.00000
%RSD	.04777	17.906	12.160	.52774	.14583

#1	8.3168	.00007	.00030	17.393	-.00011
#2	8.3112	.00009	.00036	17.523	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	3.633	-.00110	-.00078	3.3834
Stddev	.00045	.002	.00043	.00325	.0175
%RSD	121.26	.0425	38.640	417.12	.51623

#1	-.00005	3.634	-.00140	.00152	3.3711
#2	-.00069	3.632	-.00080	-.00308	3.3958

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.08612	-.00027	-.00112	.00003
Stddev	.00054	.00028	.00014	.00104	.00005
%RSD	351.37	.32846	50.799	92.435	153.52

#1	.00023	.08592	-.00017	-.00185	.00007
#2	-.00053	.08632	-.00037	-.00039	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-D Acquired: 10/26/2018 14:43:13 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00430**
 Stddev .00024
 %RSD 5.5984

#1 **.00413**
 #2 **.00448**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.3	1550.2	46120.	3667.5
Stddev	.6	1.5	152.	4.6
%RSD	.02157	.09835	.32877	.12435

#1	2667.7	1549.2	46013.	3664.3
#2	2666.9	1551.3	46227.	3670.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.350%	93.273%	96.594%	99.214%
Range				

Sample Name: 480-143899-B-1-Dsd@5 Acquired: 10/26/2018 14:47:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.01428	-.00058	.00536	.01025
Stddev	.00039	.01167	.00027	.00017	.00003
%RSD	2789.7	81.664	45.708	3.2093	.30485

#1	-.00029	.00604	-.00077	.00548	.01027
#2	.00026	.02253	-.00039	.00524	.01023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	9.5552	-.00001	.0208	-.00011
Stddev	.00001	.0036	.00001	.0062	.00009
%RSD	88.559	.03798	130.45	30.06	77.220

#1	.00002	9.5526	-.00002	.0252	-.00005
#2	.00001	9.5577	-.00000	.0164	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00038	.00110	.34382	.00178
Stddev	.00029	.00015	.00355	.00106	.00029
%RSD	91.538	38.747	321.94	.30895	16.014

#1	.00052	-.00028	-.00141	.34307	.00158
#2	.00011	-.00049	.00362	.34457	.00199

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-Dsd@5 Acquired: 10/26/2018 14:47:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.6710	-.00014	-.00008	3.4269	.00010
Stddev	.0010	.00003	.00029	.0103	.00011
%RSD	.05781	24.222	369.46	.30100	110.28

#1	1.6717	-.00011	-.00028	3.4342	.00002
#2	1.6703	-.00016	.00013	3.4196	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.7309	.00022	-.00425	.65982
Stddev	.00075	.0024	.00025	.00110	.01195
%RSD	88.331	.3338	112.87	25.950	1.8110

#1	-.00032	.7326	.00039	-.00347	.65137
#2	-.00139	.7292	.00004	-.00503	.66827

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.01719	-.00027	.00014	.00008
Stddev	.00043	.00001	.00012	.00014	.00016
%RSD	133.25	.06060	43.290	101.01	214.47

#1	-.00002	.01718	-.00035	.00004	-.00004
#2	-.00063	.01720	-.00018	.00024	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-Dsd@5 Acquired: 10/26/2018 14:47:02 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00138**
 Stddev .00040
 %RSD 29.277

#1 **.00110**
 #2 **.00167**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2770.5	1590.5	47080.	3680.9
Stddev	1.5	2.0	87.	5.9
%RSD	.05264	.12872	.18562	.15968

#1	2771.5	1591.9	47018.	3685.0
#2	2769.5	1589.0	47141.	3676.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.961%	95.693%	98.604%	99.575%
Range				

Sample Name: 480-143899-B-1-Dpds Acquired: 10/26/2018 14:50:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04930	9.8256	.20697	.23104	.25041
Stddev	.00031	.0481	.00006	.00130	.00122
%RSD	.62198	.48954	.03103	.56304	.48810

#1	.04908	9.7916	.20702	.23196	.25128
#2	.04952	9.8596	.20693	.23012	.24955

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20158	55.403	.20095	.0172	.19225
Stddev	.00134	.258	.00059	.0088	.00043
%RSD	.66276	.46571	.29262	51.13	.22317

#1	.20064	55.220	.20137	.0110	.19255
#2	.20253	55.585	.20053	.0234	.19194

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19597	.19616	9.7862	11.262	.19525
Stddev	.00127	.00026	.0512	.033	.00166
%RSD	.64748	.13165	.52307	.29117	.85245

#1	.19686	.19634	9.7500	11.239	.19407
#2	.19507	.19598	9.8224	11.286	.19642

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-Dpds Acquired: 10/26/2018 14:50:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.775	.19197	.19779	26.631	.20311
Stddev	.004	.00041	.00097	.152	.00001
%RSD	.02381	.21165	.49244	.57083	.00500

#1	17.778	.19168	.19848	26.524	.20312
#2	17.772	.19226	.19710	26.739	.20310

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20446	13.75	.20544	.20249	13.096
Stddev	.00078	.03	.00079	.00393	.117
%RSD	.38098	.1914	.38666	1.9392	.89560

#1	.20391	13.77	.20488	.19971	13.013
#2	.20501	13.73	.20600	.20527	13.179

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19936	.28359	.19822	.19962	.20085
Stddev	.00002	.00160	.00026	.00099	.00110
%RSD	.00981	.56244	.13310	.49493	.54616

#1	.19937	.28246	.19803	.20032	.20163
#2	.19934	.28472	.19841	.19892	.20008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-Dpds Acquired: 10/26/2018 14:50:51 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19724**
 Stddev .00148
 %RSD .74931

#1 **.19620**
 #2 **.19829**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2608.8	1539.5	45690.	3668.2
Stddev	.7	2.0	94.	8.8
%RSD	.02608	.13141	.20661	.23877

#1	2608.3	1538.1	45623.	3674.4
#2	2609.3	1540.9	45756.	3662.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.304%	92.626%	95.693%	99.232%
Range				

Sample Name: 480-143899-B-1-E MS Acquired: 10/26/2018 14:54:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04582	9.1172	.19318	.21484	.23810
Stddev	.00047	.0033	.00010	.00081	.00017
%RSD	1.0309	.03661	.05344	.37647	.07344

#1	.04549	9.1149	.19326	.21427	.23823
#2	.04616	9.1196	.19311	.21541	.23798

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18752	55.886	.19269	.0079	.17831
Stddev	.00078	.175	.00026	.0012	.00011
%RSD	.41641	.31265	.13496	15.76	.06339

#1	.18696	55.762	.19251	.0088	.17839
#2	.18807	56.009	.19287	.0070	.17823

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18227	.18117	9.1132	10.686	.18129
Stddev	.00087	.00013	.0202	.027	.00034
%RSD	.47917	.07093	.22179	.24950	.18778

#1	.18165	.18126	9.0989	10.667	.18105
#2	.18289	.18108	9.1275	10.705	.18153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-E MS Acquired: 10/26/2018 14:54:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.358	.18036	.18440	26.397	.18352
Stddev	.019	.00006	.00042	.047	.00046
%RSD	.11040	.03232	.22955	.17951	.24820

#1	17.344	.18032	.18410	26.364	.18384
#2	17.371	.18040	.18470	26.431	.18320

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18332	13.42	.18627	.18625	12.463
Stddev	.00173	.05	.00069	.00297	.048
%RSD	.94229	.4085	.36838	1.5936	.38704

#1	.18210	13.38	.18578	.18415	12.429
#2	.18454	13.46	.18675	.18835	12.497

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18602	.26952	.18139	.18026	.18291
Stddev	.00235	.00053	.00037	.00228	.00057
%RSD	1.2619	.19641	.20231	1.2642	.31283

#1	.18436	.26914	.18113	.18187	.18331
#2	.18768	.26989	.18164	.17865	.18250

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-E MS Acquired: 10/26/2018 14:54:31 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.18781**
 Stddev .00021
 %RSD .11294

#1 **.18796**
 #2 **.18766**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2606.8	1537.0	45400.	3666.4
Stddev	2.5	4.5	61.	7.1
%RSD	.09734	.29361	.13346	.19335

#1	2608.6	1540.2	45357.	3671.4
#2	2605.0	1533.8	45443.	3661.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.233%	92.476%	95.087%	99.183%
Range				

Sample Name: 480-143899-B-1-F MSD Acquired: 10/26/2018 14:58:10 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04652	9.2151	.19303	.21642	.23985
Stddev	.00024	.0697	.00332	.00037	.00047
%RSD	.52658	.75641	1.7223	.17240	.19758

#1	.04669	9.1659	.19538	.21668	.23951
#2	.04635	9.2644	.19068	.21615	.24018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19013	55.755	.19496	.0029	.18004
Stddev	.00046	.158	.00015	.0004	.00019
%RSD	.24052	.28412	.07805	13.76	.10598

#1	.18981	55.643	.19507	.0026	.18018
#2	.19045	55.868	.19485	.0032	.17991

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18448	.18303	9.2909	10.758	.18386
Stddev	.00066	.00015	.0433	.034	.00022
%RSD	.35608	.08173	.46627	.31827	.11935

#1	.18494	.18293	9.2603	10.734	.18371
#2	.18401	.18314	9.3216	10.782	.18402

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-F MSD Acquired: 10/26/2018 14:58:10 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.380	.18347	.18650	26.369	.18655
Stddev	.018	.00016	.00024	.169	.00021
%RSD	.10113	.08498	.13005	.64174	.11402

#1	17.393	.18336	.18667	26.250	.18670
#2	17.368	.18359	.18633	26.489	.18640

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18399	13.51	.18614	.18839	12.550
Stddev	.00193	.02	.00074	.00045	.040
%RSD	1.0508	.1389	.39503	.23725	.32011

#1	.18262	13.52	.18666	.18807	12.521
#2	.18535	13.49	.18562	.18870	12.578

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18795	.27034	.18372	.18308	.18545
Stddev	.00150	.00141	.00042	.00133	.00137
%RSD	.79914	.52021	.23101	.72513	.73621

#1	.18689	.26935	.18402	.18402	.18448
#2	.18901	.27134	.18342	.18215	.18641

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-1-F MSD Acquired: 10/26/2018 14:58:10 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19153**
 Stddev .00029
 %RSD .15002

#1 **.19173**
 #2 **.19132**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2607.9	1536.1	45434.	3639.0
Stddev	2.5	.7	43.	19.6
%RSD	.09503	.04618	.09431	.53830

#1	2609.6	1536.6	45465.	3652.8
#2	2606.1	1535.6	45404.	3625.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.270%	92.421%	95.159%	98.442%
Range				

Sample Name: 480-143899-B-2-B Acquired: 10/26/2018 15:01:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.02168	.00055	.03076	.05134
Stddev	.00002	.00276	.00170	.00020	.00003
%RSD	69.049	12.726	307.26	.64421	.05961

#1	.00005	.01973	.00175	.03090	.05136
#2	.00002	.02363	-.00065	.03062	.05132

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	48.199	.00003	.0096	-.00028
Stddev	.00004	.025	.00006	.0185	.00014
%RSD	249.16	.05158	211.27	193.6	50.603

#1	-.00001	48.182	.00007	-.0035	-.00018
#2	.00004	48.217	-.00001	.0227	-.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00060	.00964	1.4055	.00281
Stddev	.00006	.00018	.00131	.0078	.00029
%RSD	88.529	30.524	13.619	.55233	10.173

#1	.00003	.00047	.00871	1.4000	.00261
#2	.00011	.00073	.01056	1.4110	.00301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-2-B Acquired: 10/26/2018 15:01:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.4031	.00058	.00058	15.018	-.00002
Stddev	.0024	.00006	.00001	.068	.00009
%RSD	.02825	10.936	2.0338	.45080	391.35

#1	8.4014	.00053	.00057	14.970	-.00008
#2	8.4048	.00062	.00059	15.066	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	3.882	-.00164	-.00157	3.7582
Stddev	.00057	.013	.00124	.00091	.0032
%RSD	107.43	.3366	75.461	57.848	.08555

#1	-.00013	3.891	-.00251	-.00221	3.7559
#2	-.00093	3.873	-.00076	-.00093	3.7605

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.08560	-.00050	.00065	.00006
Stddev	.00002	.00045	.00008	.00018	.00001
%RSD	5.1586	.52528	15.229	28.232	15.456

#1	.00037	.08528	-.00045	.00078	.00006
#2	.00040	.08592	-.00056	.00052	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-2-B Acquired: 10/26/2018 15:01:49 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00972**
 Stddev .00016
 %RSD 1.6125

#1 **.00961**
 #2 **.00983**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2664.0	1548.7	45887.	3654.6
Stddev	.7	2.7	121.	3.9
%RSD	.02675	.17756	.26319	.10644

#1	2664.6	1546.8	45973.	3657.3
#2	2663.5	1550.7	45802.	3651.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.236%	93.181%	96.107%	98.864%
Range				

Sample Name: 480-143899-B-3-B Acquired: 10/26/2018 15:05:37 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.00728	-.00054	.05247	.05988
Stddev	.00010	.01682	.00050	.00019	.00009
%RSD	32.881	230.99	92.855	.35484	.15054

#1	-.00039	-.00461	-.00090	.05234	.05981
#2	-.00024	.01918	-.00019	.05260	.05994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	54.470	.00008	.0024	-.00038
Stddev	.00003	.046	.00004	.0019	.00003
%RSD	215.94	.08494	55.279	80.80	7.2198

#1	-.00001	54.437	.00005	.0038	-.00036
#2	.00004	54.502	.00011	.0010	-.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.00002	.00544	2.5424	.00296
Stddev	.00036	.00038	.00136	.0405	.00052
%RSD	62.345	2333.5	24.901	1.5918	17.646

#1	.00084	.00028	.00449	2.5138	.00333
#2	.00033	-.00025	.00640	2.5710	.00259

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-3-B Acquired: 10/26/2018 15:05:37 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.9661	-.00002	.00016	27.107	-.00001
Stddev	.0103	.00001	.00026	.082	.00051
%RSD	.11462	49.449	160.70	.30084	3551.2

#1	8.9589	-.00002	.00034	27.164	.00035
#2	8.9734	-.00003	-.00002	27.049	-.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	4.387	-.00162	-.00398	3.7246
Stddev	.00046	.008	.00022	.00045	.0337
%RSD	136.50	.1920	13.743	11.335	.90425

#1	-.00001	4.381	-.00178	-.00430	3.7008
#2	-.00066	4.393	-.00146	-.00366	3.7484

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.10836	-.00037	.00036	.00004
Stddev	.00049	.00045	.00003	.00005	.00005
%RSD	165.49	.41095	8.4575	15.181	115.86

#1	.00064	.10867	-.00039	.00040	.00001
#2	-.00005	.10804	-.00035	.00032	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-3-B Acquired: 10/26/2018 15:05:37 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00545**
 Stddev .00018
 %RSD 3.3079

#1 **.00532**
 #2 **.00558**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2636.6	1550.1	45604.	3623.3
Stddev	8.3	1.9	140.	3.9
%RSD	.31557	.12111	.30657	.10845

#1	2642.5	1551.4	45703.	3620.5
#2	2630.8	1548.7	45505.	3626.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.277%	93.261%	95.514%	98.018%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 15:09:27 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48509	23.755	.48316	.46890	.48717	.47313	24.022	.49058
Stddev	.00000	.051	.00088	.00047	.00064	.00171	.104	.00111
%RSD	.00028	.21590	.18266	.09986	.13091	.36059	.43155	.22593
#1	.48509	23.791	.48378	.46857	.48762	.47192	23.949	.48979
#2	.48509	23.719	.48253	.46924	.48672	.47433	24.096	.49136

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.47724	.48333	.48615	23.998	23.873	.46734	23.559
Stddev	.0155	.00023	.00089	.00046	.057	.012	.00058	.017
%RSD	2280.	.04781	.18437	.09380	.23808	.04949	.12417	.07387
#1	.0117	.47740	.48396	.48582	23.958	23.865	.46693	23.572
#2	-.0103	.47708	.48270	.48647	24.038	23.881	.46775	23.547

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49259	.48840	23.478	.47282	.47451	24.60	.48342	.48349
Stddev	.00044	.00038	.003	.00051	.00176	.02	.00147	.00088
%RSD	.08935	.07705	.01291	.10757	.37195	.0717	.30355	.18283
#1	.49228	.48814	23.476	.47318	.47326	24.59	.48446	.48287
#2	.49290	.48867	23.481	.47246	.47575	24.62	.48238	.48412

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 15:09:27 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.389	.48978	.49201	.48274	.47219	.48272	.47208
Stddev	.193	.00229	.00044	.00044	.00092	.00012	.00160
%RSD	.78998	.46775	.08854	.09208	.19462	.02450	.33888
#1	24.253	.49140	.49170	.48243	.47284	.48263	.47321
#2	24.525	.48816	.49232	.48306	.47154	.48280	.47095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2635.9	1558.4	45711.	3618.8
Stddev	3.2	4.0	53.	6.4
%RSD	.12277	.25635	.11538	.17659
#1	2638.2	1561.2	45748.	3623.3
#2	2633.6	1555.5	45673.	3614.3

Sample Name: CCB-4957862 Acquired: 10/26/2018 15:13:11 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00003	.00154	.00058	.00003	.00003	.00304	-.00000
Stddev	.00050	.00351	.00217	.00013	.00001	.00002	.00026	.00020
%RSD	1023.3	12316.	140.88	22.641	35.929	84.863	8.5429	18769.
#1	-.00031	.00245	.00308	.00067	.00004	.00001	.00285	.00014
#2	.00040	-.00251	.00001	.00049	.00002	.00005	.00322	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0175	-.00004	.00011	.00003	-.00060	.00648	.00111	-.00060
Stddev	.0138	.00003	.00014	.00024	.00071	.00537	.00060	.00124
%RSD	78.86	99.124	120.77	888.83	118.43	82.903	53.861	208.44
#1	.0272	-.00006	.00002	.00019	-.00111	.00268	.00069	.00028
#2	.0077	-.00001	.00021	-.00014	-.00010	.01028	.00154	-.00147

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00094	.00774	-.00029	.00021	.0084	.00105	.00037
Stddev	.00004	.00008	.00192	.00013	.00030	.0018	.00009	.00256
%RSD	27.417	8.6666	24.798	44.107	142.29	21.72	8.0832	695.64
#1	.00011	.00099	.00910	-.00020	.00042	.0097	.00111	-.00144
#2	.00016	.00088	.00639	-.00038	-.00000	.0071	.00099	.00218

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 15:13:11 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03777	.00032	.00000	.00007	-.00100	.00010	.00004
Stddev	.00104	.00112	.00007	.00024	.00071	.00019	.00069
%RSD	2.7630	349.90	2700.7	322.90	71.493	189.57	1694.9

#1	.03850	.00111	-.00004	-.00010	-.00150	.00024	.00053
#2	.03703	-.00047	.00005	.00024	-.00049	-.00003	-.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2811.8	1601.9	47377.	3636.3
Stddev	7.6	4.0	68.	11.9
%RSD	.26936	.24862	.14451	.32811

#1	2817.2	1604.7	47425.	3644.7
#2	2806.5	1599.1	47328.	3627.8

Sample Name: CCVL-4954076 Acquired: 10/26/2018 15:17:04 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00565	.19569	.01606	.01950	.00204	.00195	.49486	.00198
Stddev	.00028	.00431	.00043	.00041	.00000	.00004	.00058	.00006
%RSD	4.9607	2.2001	2.6736	2.1138	.22070	1.9877	.11701	2.8764
#1	.00585	.19874	.01576	.01921	.00204	.00198	.49445	.00194
#2	.00545	.19265	.01637	.01979	.00204	.00192	.49527	.00202

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0021	.00365	.00373	.00936	.04869	.47000	.02872	.19630
Stddev	.0032	.00002	.00014	.00032	.00066	.00509	.00123	.00021
%RSD	153.0	.61711	3.8446	3.4303	1.3454	1.0831	4.2808	.10605
#1	.0002	.00367	.00363	.00913	.04823	.47360	.02785	.19644
#2	-.0044	.00363	.00383	.00959	.04915	.46640	.02959	.19615

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00277	.00974	.92518	.00928	.00943	.2105	.01711	.02380
Stddev	.00001	.00010	.00243	.00014	.00017	.0013	.00001	.00183
%RSD	.18114	1.0151	.26221	1.5098	1.7994	.6134	.06244	7.6829
#1	.00277	.00967	.92346	.00938	.00955	.2096	.01710	.02510
#2	.00276	.00981	.92690	.00918	.00931	.2114	.01711	.02251

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/26/2018 15:17:04 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46689	.00929	.00485	.00439	.01907	.00456	.01079
Stddev	.00833	.00013	.00003	.00018	.00082	.00011	.00046
%RSD	1.7840	1.3947	.69161	4.1688	4.3108	2.5031	4.3083

#1	.46100	.00920	.00482	.00426	.01849	.00464	.01112
#2	.47278	.00938	.00487	.00452	.01966	.00448	.01046

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2781.4	1599.3	47093.	3673.1
Stddev	.4	6.2	125.	10.7
%RSD	.01618	.38995	.26575	.29248

#1	2781.8	1603.7	47004.	3680.7
#2	2781.1	1594.9	47181.	3665.5

Sample Name: 480-143899-B-4-B Acquired: 10/26/2018 15:20:55 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.02094	-.00070	.07804	.08711
Stddev	.00033	.01029	.00040	.00009	.00028
%RSD	153.97	49.159	57.586	.11651	.31623

#1	-.00044	.01366	-.00041	.07810	.08730
#2	.00002	.02822	-.00098	.07797	.08692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	85.540	.00011	.0166	-.00021
Stddev	.00000	.255	.00001	.0204	.00005
%RSD	3.6313	.29781	9.8034	122.8	23.692

#1	.00005	85.360	.00011	.0022	-.00025
#2	.00004	85.720	.00010	.0311	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.00013	.00848	4.3615	.00288
Stddev	.00009	.00010	.00236	.0111	.00015
%RSD	10.718	73.113	27.790	.25426	5.0983

#1	.00075	.00007	.01015	4.3537	.00299
#2	.00087	.00020	.00681	4.3693	.00278

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-4-B Acquired: 10/26/2018 15:20:55 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.241	.00017	.00053	5.5698	-.00028
Stddev	.035	.00005	.00006	.0115	.00000
%RSD	.30944	26.347	11.520	.20617	.81925

#1	11.265	.00014	.00057	5.5779	-.00028
#2	11.216	.00021	.00049	5.5617	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	2.213	-.00140	-.00330	7.1527
Stddev	.00100	.005	.00017	.00153	.0077
%RSD	116.48	.2440	12.159	46.304	.10840

#1	-.00015	2.209	-.00128	-.00222	7.1582
#2	-.00156	2.217	-.00152	-.00438	7.1472

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.21684	-.00025	.00042	-.00010
Stddev	.00030	.00028	.00015	.00058	.00012
%RSD	5750.2	.12900	62.572	139.70	110.51

#1	.00022	.21703	-.00014	.00083	-.00002
#2	-.00021	.21664	-.00036	.00001	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-4-B Acquired: 10/26/2018 15:20:55 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00678**
 Stddev .00002
 %RSD .36476

#1 **.00676**
 #2 **.00680**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2632.7	1536.8	45442.	3648.1
Stddev	.8	1.6	152.	6.9
%RSD	.03167	.10408	.33416	.18931

#1	2632.1	1537.9	45334.	3653.0
#2	2633.3	1535.6	45549.	3643.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.139%	92.461%	95.174%	98.690%
Range				

Sample Name: 480-143899-B-5-B Acquired: 10/26/2018 15:24:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	-.00495	-.00144	.03023	.05307
Stddev	.00024	.00750	.00050	.00023	.00002
%RSD	156.79	151.66	35.143	.75911	.03382

#1	.00002	-.01025	-.00108	.03007	.05308
#2	-.00032	.00036	-.00179	.03039	.05306

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	47.950	.00011	.0100	-.00027
Stddev	.00006	.127	.00003	.0003	.00008
%RSD	934.75	.26542	32.473	2.634	30.284

#1	-.00005	47.860	.00008	.0102	-.00021
#2	.00003	48.040	.00013	.0099	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	-.00011	.05769	1.3885	.00247
Stddev	.00004	.00041	.00089	.0163	.00064
%RSD	6.8026	363.51	1.5423	1.1762	25.924

#1	.00060	-.00040	.05832	1.3770	.00292
#2	.00055	.00017	.05706	1.4001	.00201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-5-B Acquired: 10/26/2018 15:24:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.3617	.00054	.00003	14.960	-.00010
Stddev	.0009	.00010	.00001	.031	.00024
%RSD	.01054	18.692	32.291	.20778	230.21

#1	8.3610	.00047	.00004	14.982	-.00027
#2	8.3623	.00062	.00003	14.938	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	3.864	-.00369	-.00167	3.7008
Stddev	.00059	.011	.00057	.00035	.0008
%RSD	5538.1	.2722	15.472	21.226	.02138

#1	-.00043	3.871	-.00410	-.00192	3.7014
#2	.00041	3.856	-.00329	-.00142	3.7002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.08533	-.00012	-.00009	.00006
Stddev	.00063	.00000	.00013	.00064	.00019
%RSD	436.85	.00035	110.89	747.62	333.34

#1	.00059	.08533	-.00021	-.00054	.00019
#2	-.00030	.08533	-.00003	.00037	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-B-5-B Acquired: 10/26/2018 15:24:44 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00368**
 Stddev .00109
 %RSD 29.481

#1 **.00292**
 #2 **.00445**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2661.6	1552.2	45983.	3661.5
Stddev	1.6	2.0	70.	6.9
%RSD	.06145	.12862	.15254	.18895

#1	2662.7	1553.7	45934.	3666.4
#2	2660.4	1550.8	46033.	3656.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.149%	93.393%	96.308%	99.052%
Range				

Sample Name: 480-143733-A-15-B Acquired: 10/26/2018 15:28:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00190	.00057	.00042	.00015
Stddev	.00007	.00018	.00126	.00002	.00001
%RSD	69.299	9.3592	220.45	4.7155	3.6076

#1	-.00005	-.00203	-.00032	.00043	.00014
#2	-.00015	-.00177	.00146	.00040	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.11963	.00001	-.0061	.00003
Stddev	.00003	.00074	.00013	.0006	.00000
%RSD	86.466	.61472	1030.4	9.151	18.721

#1	.00001	.11911	.00010	-.0065	.00002
#2	.00005	.12015	-.00008	-.0057	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00020	.62672	.03587	.00144
Stddev	.00019	.00013	.00189	.00621	.00016
%RSD	69.661	65.235	.30165	17.307	11.364

#1	.00014	-.00011	.62538	.03148	.00133
#2	.00040	-.00029	.62806	.04026	.00156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143733-A-15-B Acquired: 10/26/2018 15:28:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07262	.01099	-.00005	.78337	.00050
Stddev	.00180	.00010	.00001	.01461	.00021
%RSD	2.4725	.90574	13.446	1.8644	41.569

#1	.07389	.01106	-.00005	.79370	.00064
#2	.07135	.01092	-.00004	.77305	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	.8913	-.00102	-.00181	-.01474
Stddev	.00005	.0004	.00064	.00090	.00762
%RSD	12.669	.0444	63.468	50.067	51.697

#1	-.00036	.8910	-.00056	-.00117	-.00935
#2	-.00043	.8916	-.00147	-.00245	-.02013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.00027	.00003	-.00030	-.00004
Stddev	.00023	.00000	.00014	.00009	.00014
%RSD	71.864	.33859	453.85	31.849	381.82

#1	-.00049	.00027	.00013	-.00036	-.00013
#2	-.00016	.00027	-.00007	-.00023	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143733-A-15-B Acquired: 10/26/2018 15:28:33 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01711**
 Stddev .00039
 %RSD 2.2955

#1 **.01738**
 #2 **.01683**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2771.0	1594.8	47273.	3716.2
Stddev	.2	2.1	98.	5.3
%RSD	.00810	.13400	.20670	.14245

#1	2770.8	1596.3	47343.	3712.4
#2	2771.1	1593.3	47204.	3719.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.978%	95.955%	99.010%	100.53%
Range				

Sample Name: 480-143432-A-1-B Acquired: 10/26/2018 15:32:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.03733	.78653	F -.03146	1.9728	-.00019
Stddev	.00125	.00972	.00357	.0072	.00001
%RSD	3.3420	1.2364	11.342	.36484	3.8045

#1	-.03645	.79340	-.03398	1.9779	-.00019
#2	-.03821	.77965	-.02894	1.9677	-.00018

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	2.0000		4.5000		
Low Limit	-.00600		-.01500		

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	356.93	.00173	F 1.777	2.3103
Stddev	.00004	.30	.00037	.017	.0129
%RSD	14.329	.08367	21.169	.9772	.55642

#1	.00031	357.14	.00147	1.789	2.3194
#2	.00025	356.72	.00199	1.765	2.3012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				1.500	
Low Limit				-.0500	

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.01579	.64979	F 6862.5	F 837.50	.30608
Stddev	.00045	.00004	17.8	1.77	.03078
%RSD	2.8719	.00671	.25917	.21114	10.057

#1	-.01612	.64982	6875.0	836.25	.28431
#2	-.01547	.64976	6849.9	838.75	.32784

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit	9.0000		540.00	540.00	
Low Limit	-.00400		-.05000	-.50000	

Sample Name: 480-143432-A-1-B Acquired: 10/26/2018 15:32:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 549.69	F 107.54	F -.06364	F 9089.4	2.4181
Stddev	.94	.35	.00030	48.0	.0144
%RSD	.17085	.32993	.47110	.52765	.59672

#1	549.03	107.79	-.06343	9123.3	2.4283
#2	550.36	107.28	-.06385	9055.5	2.4079

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass
High Limit	450.00	45.000	4.5000	900.00	
Low Limit	-.20000	-.00300	-.01000	-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37057	F 3657.	F -.48391	-.00104	12.396
Stddev	.02000	9.	.00713	.02199	.019
%RSD	5.3981	.2332	1.4729	2124.2	.15275

#1	.38472	3663.	-.48895	-.01658	12.409
#2	.35643	3651.	-.47887	.01451	12.383

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit		90.00	9.0000		
Low Limit		-.2000	-.02000		

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11732	.38767	.15252	F -.15776	.05761
Stddev	.00423	.00093	.00003	.00191	.00027
%RSD	3.6059	.23968	.01788	1.2136	.47087

#1	.12031	.38832	.15250	-.15640	.05742
#2	.11432	.38701	.15254	-.15911	.05781

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				18.000	
Low Limit				-.02000	

Sample Name: 480-143432-A-1-B Acquired: 10/26/2018 15:32:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg F 58.402
Stddev .018
%RSD .03038

#1 58.415
#2 58.389

Check ? Chk Fail
High Limit 18.000
Low Limit -.01000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	874.75	801.25	28645.	2465.7
Stddev	3.56	1.49	20.	4.7
%RSD	.40719	.18547	.07120	.18981

#1	872.23	800.20	28630.	2462.4
#2	877.27	802.30	28659.	2469.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	30.615%	48.208%	59.994%	66.701%
Range				

Sample Name: 480-143432-A-1-B@5 Acquired: 10/26/2018 15:36:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00542	.15845	-.00659	.34028	-.00001
Stddev	.00021	.02075	.00189	.00072	.00000
%RSD	3.8856	13.097	28.619	.21247	24.280

#1	-.00527	.14378	-.00792	.34080	-.00001
#2	-.00557	.17313	-.00525	.33977	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	72.743	.00272	.2892	.33135
Stddev	.00010	.041	.00014	.0050	.00122
%RSD	100.37	.05703	5.2799	1.719	.36861

#1	.00017	72.714	.00283	.2927	.33049
#2	.00003	72.773	.00262	.2857	.33221

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00231	.10339	F 1324.7	141.23	.08732
Stddev	.00014	.00006	1.4	.58	.00104
%RSD	5.9403	.05861	.10457	.41346	1.1921

#1	-.00241	.10335	1323.7	140.82	.08805
#2	-.00222	.10344	1325.7	141.65	.08658

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 480-143432-A-1-B@5 Acquired: 10/26/2018 15:36:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	129.92	21.473	F -.01039	F 1509.0	.36341
Stddev	.24	.016	.00067	7.1	.00172
%RSD	.18455	.07352	6.4601	.46869	.47285

#1	129.75	21.462	-.00992	1504.0	.36220
#2	130.09	21.484	-.01086	1514.0	.36463

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit			4.5000	900.00	
Low Limit			-.01000	-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02519	F 1690.	F -.09465	-.00707	2.1507
Stddev	.00048	3.	.00213	.00765	.0167
%RSD	1.9162	.1890	2.2461	108.19	.77835

#1	.02553	1692.	-.09615	-.01248	2.1388
#2	.02485	1688.	-.09314	-.00166	2.1625

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit		90.00	9.0000		
Low Limit		-.2000	-.02000		

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01141	.06762	.03097	-.01545	.00859
Stddev	.00029	.00034	.00009	.00315	.00038
%RSD	2.5323	.49885	.29209	20.370	4.4322

#1	.01121	.06738	.03103	-.01322	.00832
#2	.01162	.06786	.03091	-.01767	.00886

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143432-A-1-B@5 Acquired: 10/26/2018 15:36:48 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **15.727**
 Stddev .024
 %RSD .15261

#1 15.710
 #2 15.743

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1948.5	1300.0	38770.	3287.5
Stddev	2.3	3.2	136.	5.3
%RSD	.11944	.24520	.34971	.16082

#1	1946.9	1297.7	38674.	3283.7
#2	1950.2	1302.2	38866.	3291.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.195%	78.216%	81.200%	88.933%
Range				

Sample Name: 480-143794-A-1-B Acquired: 10/26/2018 15:40:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.01354	-.00040	.01448	.09108
Stddev	.00009	.01349	.00106	.00008	.00012
%RSD	83.804	99.673	264.58	.52664	.13351

#1	.00017	.02308	.00035	.01454	.09099
#2	.00004	.00400	-.00115	.01443	.09116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	33.477	.00007	-.0018	-.00022
Stddev	.00001	.048	.00010	.0147	.00006
%RSD	32.784	.14459	149.47	807.4	25.179

#1	.00003	33.443	.00014	.0085	-.00018
#2	.00002	33.511	-.00000	-.0122	-.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.04019	.11357	.93440	.01966
Stddev	.00023	.00029	.00201	.00669	.00067
%RSD	52.846	.72422	1.7690	.71596	3.4207

#1	.00027	.04040	.11499	.92967	.02013
#2	.00059	.03998	.11215	.93913	.01918

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143794-A-1-B Acquired: 10/26/2018 15:40:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.9523	.00815	.00031	5.3779	.00031
Stddev	.0076	.00005	.00011	.0130	.00013
%RSD	.11004	.57383	34.915	.24079	41.880

#1	6.9469	.00812	.00023	5.3687	.00021
#2	6.9577	.00818	.00038	5.3871	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	4.074	-.00149	-.00253	6.5543
Stddev	.00096	.021	.00068	.00022	.0077
%RSD	330.46	.5121	45.463	8.7743	.11811

#1	-.00096	4.088	-.00196	-.00268	6.5598
#2	.00039	4.059	-.00101	-.00237	6.5489

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.09784	-.00011	-.00042	.00092
Stddev	.00046	.00076	.00006	.00079	.00002
%RSD	182.39	.78151	53.270	188.98	2.2830

#1	.00058	.09730	-.00015	-.00097	.00091
#2	-.00007	.09839	-.00007	.00014	.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143794-A-1-B Acquired: 10/26/2018 15:40:46 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.04450**
 Stddev .00119
 %RSD 2.6824

#1 **.04366**
 #2 **.04534**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2724.6	1574.9	46667.	3703.9
Stddev	3.3	1.5	139.	15.1
%RSD	.12073	.09437	.29687	.40748

#1	2722.3	1573.9	46765.	3714.5
#2	2726.9	1576.0	46570.	3693.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.355%	94.756%	97.741%	100.20%
Range				

Sample Name: 480-143641-E-4-B Acquired: 10/26/2018 15:44:34 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.00370	-.00067	.30042	.34606
Stddev	.00023	.01161	.00205	.00139	.00033
%RSD	258.33	314.08	305.93	.46152	.09480

#1	-.00025	.00451	.00078	.30140	.34582
#2	.00007	-.01191	-.00212	.29944	.34629

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	25.680	.00004	-.0077	-.00016
Stddev	.00001	.175	.00002	.0041	.00016
%RSD	18.875	.68003	63.987	53.16	102.40

#1	.00006	25.557	.00005	-.0048	-.00028
#2	.00005	25.804	.00002	-.0105	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.00177	.01867	2.2764	.05685
Stddev	.00010	.00006	.00005	.0099	.00042
%RSD	3515.8	3.4930	.29271	.43368	.73743

#1	-.00007	.00182	.01863	2.2695	.05714
#2	.00007	.00173	.01871	2.2834	.05655

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-E-4-B Acquired: 10/26/2018 15:44:34 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.6564	.17384	.00185	37.568	.00012
Stddev	.0185	.00025	.00007	.213	.00033
%RSD	.24193	.14127	3.5376	.56566	266.81

#1	7.6695	.17401	.00181	37.417	.00035
#2	7.6433	.17366	.00190	37.718	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	2.023	-.00212	-.00478	1.9938
Stddev	.00098	.010	.00101	.00207	.0130
%RSD	652.31	.4780	47.771	43.182	.65354

#1	.00054	2.030	-.00283	-.00624	1.9846
#2	-.00084	2.017	-.00140	-.00332	2.0030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	1.0189	-.00044	.00091	-.00021
Stddev	.00029	.0061	.00001	.00012	.00002
%RSD	472.63	.59764	2.2595	12.875	11.093

#1	-.00027	1.0146	-.00043	.00100	-.00023
#2	.00014	1.0232	-.00044	.00083	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-E-4-B Acquired: 10/26/2018 15:44:34 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00608**
 Stddev .00052
 %RSD 8.6009

#1 **.00571**
 #2 **.00645**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2669.2	1568.0	46068.	3663.0
Stddev	.2	.3	77.	34.6
%RSD	.00749	.02201	.16738	.94455

#1	2669.3	1568.3	46013.	3687.4
#2	2669.0	1567.8	46122.	3638.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.416%	94.343%	96.485%	99.090%
Range				

Sample Name: 480-143641-E-8-B Acquired: 10/26/2018 15:48:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.01079	.00543	.06375	.13109
Stddev	.00024	.00330	.00052	.00032	.00004
%RSD	141.44	30.620	9.5909	.50887	.03005

#1	.00000	.01312	.00506	.06352	.13106
#2	-.00033	.00845	.00579	.06398	.13112

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	151.73	.00010	.0007	.00149
Stddev	.00001	.14	.00001	.0082	.00007
%RSD	10.356	.08944	8.8280	1136.	4.4117

#1	.00006	151.64	.00011	-.0051	.00144
#2	.00006	151.83	.00009	.0065	.00153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00169	.01134	13.316	.02086
Stddev	.00003	.00030	.00078	.026	.00039
%RSD	40.464	17.947	6.8735	.19652	1.8794

#1	.00008	.00148	.01189	13.297	.02114
#2	.00005	.00191	.01079	13.334	.02058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-E-8-B Acquired: 10/26/2018 15:48:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.822	6.6887	.00011	20.025	.00170
Stddev	.022	.0104	.00015	.106	.00033
%RSD	.09056	.15625	133.62	.52696	19.197

#1	23.807	6.6961	.00022	19.951	.00193
#2	23.837	6.6813	.00001	20.100	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.7957	-.00407	-.00409	8.0120
Stddev	.00148	.0001	.00108	.00057	.0406
%RSD	1559.2	.0081	26.592	13.948	.50740

#1	-.00114	.7956	-.00483	-.00369	7.9833
#2	.00095	.7957	-.00330	-.00450	8.0408

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.40666	-.00053	-.00060	-.00004
Stddev	.00032	.00234	.00018	.00057	.00016
%RSD	659.05	.57527	34.016	95.218	422.24

#1	.00028	.40501	-.00040	-.00020	.00008
#2	-.00018	.40832	-.00066	-.00100	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-E-8-B Acquired: 10/26/2018 15:48:26 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01459**
 Stddev .00030
 %RSD 2.0607

#1 **.01481**
 #2 **.01438**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2542.2	1516.4	44774.	3620.1
Stddev	.9	4.3	34.	20.6
%RSD	.03425	.28597	.07562	.56954

#1	2542.8	1519.4	44750.	3634.7
#2	2541.6	1513.3	44798.	3605.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.973%	91.234%	93.775%	97.931%
Range				

Sample Name: 480-143641-E-9-B Acquired: 10/26/2018 15:52:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.01716	.01081	.01049	.06656
Stddev	.00039	.03133	.00273	.00021	.00027
%RSD	251.24	182.58	25.285	1.9891	.40127

#1	-.00043	.03931	.01274	.01034	.06674
#2	.00012	-.00499	.00887	.01063	.06637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	49.889	.00005	.0073	-.00024
Stddev	.00002	.129	.00005	.0049	.00013
%RSD	64.739	.25931	109.20	67.72	53.801

#1	.00005	49.980	.00009	.0107	-.00034
#2	.00002	49.797	.00001	.0038	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00048	.02367	1.3486	.02068
Stddev	.00009	.00016	.00004	.0160	.00022
%RSD	557.99	32.795	.16524	1.1881	1.0870

#1	.00005	.00060	.02370	1.3599	.02052
#2	-.00008	.00037	.02364	1.3373	.02084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-E-9-B Acquired: 10/26/2018 15:52:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.076	.08970	.00089	5.7938	-.00053
Stddev	.044	.00054	.00007	.0137	.00006
%RSD	.27255	.60286	7.4721	.23661	11.785

#1	16.107	.09008	.00093	5.7841	-.00057
#2	16.045	.08932	.00084	5.8035	-.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00072	6.145	-.00292	-.00398	5.9815
Stddev	.00022	.024	.00001	.00106	.0107
%RSD	31.292	.3921	.21415	26.679	.17902

#1	-.00088	6.162	-.00292	-.00473	5.9739
#2	-.00056	6.128	-.00291	-.00323	5.9891

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.08867	-.00014	-.00059	-.00030
Stddev	.00066	.00012	.00002	.00014	.00002
%RSD	152.08	.13506	15.776	23.546	6.4145

#1	.00003	.08858	-.00016	-.00069	-.00031
#2	-.00089	.08875	-.00013	-.00049	-.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-E-9-B Acquired: 10/26/2018 15:52:20 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00875**
 Stddev .00064
 %RSD 7.3580

#1 **.00830**
 #2 **.00921**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2673.6	1556.8	46067.	3690.2
Stddev	1.0	1.3	186.	.4
%RSD	.03828	.08423	.40452	.01160

#1	2672.8	1555.9	45935.	3690.5
#2	2674.3	1557.7	46199.	3689.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.569%	93.666%	96.484%	99.827%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 15:56:09 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48650	23.599	.48476	.46717	.48955	.47320	23.963	.49010
Stddev	.00041	.061	.00075	.00178	.00545	.00114	.016	.00154
%RSD	.08432	.25821	.15455	.38104	1.1134	.24084	.06678	.31335
#1	.48679	23.643	.48529	.46591	.49340	.47400	23.974	.48901
#2	.48621	23.556	.48423	.46843	.48569	.47239	23.952	.49119

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037	.47789	.48573	.48832	23.837	24.097	.47396	23.642
Stddev	.0127	.00074	.00112	.00164	.002	.036	.00043	.039
%RSD	345.0	.15430	.22961	.33621	.00903	.14865	.09068	.16543
#1	-.0053	.47737	.48494	.48948	23.838	24.123	.47365	23.670
#2	.0127	.47841	.48651	.48716	23.835	24.072	.47426	23.614

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49454	.48987	23.808	.47600	.47601	24.58	.48577	.47942
Stddev	.00066	.00009	.011	.00073	.00193	.04	.00496	.00070
%RSD	.13253	.01840	.04460	.15416	.40473	.1762	1.0215	.14565
#1	.49500	.48993	23.801	.47652	.47737	24.55	.48226	.47992
#2	.49407	.48981	23.816	.47549	.47465	24.62	.48928	.47893

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 15:56:09 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.285	.49053	.49338	.48277	.47257	.48305	.47037
Stddev	.109	.00061	.00091	.00073	.00030	.00298	.00170
%RSD	.44863	.12457	.18541	.15053	.06359	.61760	.36074
#1	24.208	.49096	.49274	.48329	.47236	.48516	.46917
#2	24.362	.49010	.49403	.48226	.47278	.48094	.47157

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.7	1565.7	45868.	3642.1
Stddev	1.3	1.1	233.	13.6
%RSD	.04984	.07015	.50786	.37372
#1	2638.8	1566.4	45703.	3632.5
#2	2640.6	1564.9	46033.	3651.7

Sample Name: CCB-4957862 Acquired: 10/26/2018 15:59:52 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.01006	-.00004	.00015	.00001	.00003	.00544	.00001
Stddev	.00043	.02504	.00081	.00012	.00000	.00005	.00243	.00006
%RSD	227.65	248.98	1849.5	79.789	5.0617	168.83	44.768	518.86

#1	.00050	-.00765	.00053	.00007	.00001	.00007	.00716	.00005
#2	-.00012	.02776	-.00062	.00024	.00001	-.00001	.00372	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0013	-.00035	.00031	-.00019	.00182	.14214	.00341	-.00152
Stddev	.0013	.00000	.00005	.00009	.00146	.00966	.00072	.00396
%RSD	96.49	.02986	16.075	48.950	80.019	6.7940	21.009	261.04

#1	-.0004	-.00035	.00027	-.00012	.00079	.14897	.00391	-.00432
#2	-.0023	-.00035	.00034	-.00025	.00285	.13531	.00290	.00128

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00092	.16878	-.00026	-.00047	.0704	-.00098	.00197
Stddev	.00002	.00003	.00677	.00002	.00053	.0056	.00071	.00064
%RSD	10.525	3.4653	4.0084	6.9025	112.48	7.912	72.253	32.493

#1	.00019	.00089	.17357	-.00025	-.00010	.0743	-.00048	.00242
#2	.00022	.00094	.16400	-.00027	-.00084	.0664	-.00148	.00152

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 15:59:52 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02624	.00041	-.00002	.00010	-.00029	.00021	.00060
Stddev	.00733	.00030	.00007	.00010	.00109	.00007	.00033
%RSD	27.946	73.781	339.42	102.95	371.79	32.824	55.346

#1	.02106	.00062	.00003	.00017	.00048	.00025	.00084
#2	.03143	.00020	-.00007	.00003	-.00106	.00016	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.4	1616.0	47630.	3675.1
Stddev	.6	.5	39.	6.0
%RSD	.02185	.03087	.08214	.16302

#1	2819.0	1615.7	47603.	3670.9
#2	2819.8	1616.4	47658.	3679.4

Sample Name: CCVL-4954076 Acquired: 10/26/2018 16:03:44 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00596	.18559	.01322	.01943	.00202	.00204	.49869	.00208
Stddev	.00028	.01734	.00144	.00037	.00001	.00004	.00072	.00003
%RSD	4.6484	9.3437	10.894	1.9003	.35281	1.7329	.14492	1.5834
#1	.00616	.19785	.01424	.01917	.00201	.00201	.49818	.00210
#2	.00576	.17333	.01221	.01970	.00202	.00206	.49920	.00206

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047	.00366	.00383	.00943	.04923	.59854	.03446	.19733
Stddev	.0063	.00021	.00006	.00014	.00371	.00151	.00029	.00015
%RSD	133.9	5.7521	1.6238	1.4828	7.5388	.25178	.83906	.07352
#1	.0003	.00351	.00388	.00933	.04661	.59960	.03467	.19723
#2	.0092	.00380	.00379	.00953	.05186	.59747	.03426	.19743

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00280	.00975	1.0808	.00969	.01004	W .2915	.01767	.02260
Stddev	.00004	.00003	.0050	.00024	.00131	.0000	.00121	.00078
%RSD	1.4368	.28477	.45782	2.4865	13.017	.0088	6.8436	3.4529
#1	.00283	.00973	1.0773	.00986	.01097	.2915	.01681	.02205
#2	.00277	.00977	1.0843	.00951	.00912	.2915	.01852	.02315

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn .2000 30.00%	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/26/2018 16:03:44 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45807	.00927	.00483	.00442	.01875	.00454	.01082
Stddev	.00080	.00015	.00012	.00036	.00033	.00030	.00041
%RSD	.17520	1.5796	2.4530	8.1359	1.7544	6.5135	3.7670

#1	.45751	.00916	.00491	.00468	.01852	.00433	.01054
#2	.45864	.00937	.00474	.00417	.01898	.00475	.01111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.7	1608.2	47008.	3669.6
Stddev	1.9	4.0	66.	2.6
%RSD	.06704	.25075	.13997	.07003

#1	2791.0	1611.0	47054.	3671.4
#2	2788.4	1605.3	46961.	3667.8

Sample Name: 480-143803-C-1-B Acquired: 10/26/2018 16:07:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.02586	.00043	.01496	.06308
Stddev	.00009	.00202	.00132	.00003	.00010
%RSD	48.008	7.8172	303.61	.20455	.15448

#1	-.00013	.02443	.00137	.01498	.06301
#2	-.00025	.02728	-.00050	.01494	.06315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	73.635	.00009	.0105	-.00017
Stddev	.00001	.238	.00002	.0283	.00005
%RSD	1372.6	.32314	21.011	270.0	28.299

#1	.00001	73.803	.00010	.0305	-.00013
#2	-.00001	73.467	.00007	-.0095	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00130	.00043	1.9249	5.6450	.00679
Stddev	.00025	.00015	.0077	.0156	.00020
%RSD	19.392	33.905	.40242	.27579	3.0172

#1	.00113	.00053	1.9304	5.6340	.00694
#2	.00148	.00033	1.9194	5.6560	.00665

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143803-C-1-B Acquired: 10/26/2018 16:07:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.810	.01764	.00033	3.2780	.00035
Stddev	.018	.00017	.00023	.0124	.00038
%RSD	.14099	.94758	72.075	.37798	107.50

#1	12.798	.01775	.00049	3.2692	.00008
#2	12.823	.01752	.00016	3.2868	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00131	2.096	-.00222	-.00337	5.5230
Stddev	.00038	.006	.00074	.00092	.0143
%RSD	28.983	.2876	33.529	27.407	.25953

#1	-.00158	2.100	-.00275	-.00402	5.5129
#2	-.00104	2.092	-.00169	-.00272	5.5331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.09800	-.00001	-.00068	.00007
Stddev	.00025	.00008	.00031	.00035	.00031
%RSD	68.806	.07993	2503.5	51.982	421.73

#1	-.00055	.09794	-.00023	-.00043	.00029
#2	-.00019	.09805	.00021	-.00093	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143803-C-1-B Acquired: 10/26/2018 16:07:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00690**
 Stddev .00058
 %RSD 8.4472

#1 **.00649**
 #2 **.00731**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2642.6	1538.5	45702.	3687.0
Stddev	1.6	4.1	87.	8.0
%RSD	.06110	.26754	.18933	.21704

#1	2641.5	1535.6	45763.	3681.3
#2	2643.8	1541.4	45641.	3692.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.487%	92.564%	95.719%	99.740%
Range				

Sample Name: 480-143474-D-3-B Acquired: 10/26/2018 16:11:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.01299	.00037	.23903	.02099
Stddev	.00020	.00591	.00187	.00071	.00007
%RSD	120.23	45.483	509.46	.29737	.32349

#1	.00002	.01717	.00169	.23953	.02104
#2	.00030	.00881	-.00095	.23853	.02095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	23.594	.00011	.0078	-.00015
Stddev	.00003	.092	.00003	.0022	.00005
%RSD	873.99	.39091	23.217	28.45	32.078

#1	.00002	23.529	.00009	.0094	-.00012
#2	-.00002	23.659	.00013	.0062	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00203	.32987	4.8957	.04859
Stddev	.00015	.00005	.00116	.0413	.00067
%RSD	718.63	2.3317	.35209	.84345	1.3889

#1	-.00008	.00206	.32905	4.8665	.04811
#2	.00012	.00200	.33069	4.9249	.04907

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143474-D-3-B Acquired: 10/26/2018 16:11:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.790	.00650	.01223	73.330	-.00029
Stddev	.027	.00002	.00027	.350	.00005
%RSD	.25011	.23291	2.2000	.47720	18.216

#1	10.809	.00651	.01204	73.083	-.00032
#2	10.771	.00649	.01242	73.577	-.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00133	29.89	-.00188	-.00137	3.5011
Stddev	.00056	.15	.00057	.00074	.0190
%RSD	42.135	.5131	30.207	54.216	.54189

#1	-.00093	29.99	-.00228	-.00085	3.4877
#2	-.00172	29.78	-.00148	-.00190	3.5146

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.64101	-.00011	.00131	-.00010
Stddev	.00083	.00133	.00024	.00022	.00003
%RSD	229.20	.20713	209.40	16.557	34.787

#1	.00095	.64007	-.00028	.00147	-.00012
#2	-.00023	.64195	.00005	.00116	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143474-D-3-B Acquired: 10/26/2018 16:11:23 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.07150**
 Stddev .00044
 %RSD .60963

#1 **.07180**
 #2 **.07119**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2629.4	1550.3	45453.	3654.4
Stddev	6.3	6.2	98.	17.9
%RSD	.24080	.40276	.21574	.49019

#1	2624.9	1545.9	45384.	3667.1
#2	2633.9	1554.7	45523.	3641.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.024%	93.277%	95.198%	98.860%
Range				

Sample Name: 480-143474-F-1-B Acquired: 10/26/2018 16:15:11 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00353	1.4850	.22709	7.2319	2.5700
Stddev	.00064	.0137	.01308	.0251	.0036
%RSD	18.002	.92156	5.7595	.34761	.14093

#1	-.00308	1.4753	.21785	7.2497	2.5725
#2	-.00398	1.4947	.23634	7.2141	2.5674

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	F 1892.0	.00023	.0828	.00532
Stddev	.00013	7.8	.00023	.0176	.00074
%RSD	53.506	.41361	102.33	21.23	13.837

#1	.00034	1886.5	.00006	.0703	.00585
#2	.00015	1897.5	.00039	.0952	.00480

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.61454	-.00632	443.25	F 1875.4	1.5193
Stddev	.00075	.00105	.37	19.6	.0227
%RSD	.12199	16.695	.08294	1.0440	1.4927

#1	.61507	-.00557	442.99	1889.2	1.5354
#2	.61401	-.00706	443.51	1861.5	1.5033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				540.00	
Low Limit				-.50000	

Sample Name: 480-143474-F-1-B Acquired: 10/26/2018 16:15:11 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 776.84	28.855	.00101	^ *****	.44560
Stddev	3.86	.058	.00038	----	.00257
%RSD	.49688	.20261	37.832	----	.57650

#1	779.57	28.897	.00127	^ -----	.44742
#2	774.11	28.814	.00074	^ -----	.44379

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	450.00				
Low Limit	-.20000				

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02083	F 898.4	F -.02512	.03919	20.801
Stddev	.00114	1.4	.00100	.00067	.024
%RSD	5.4861	.1524	3.9980	1.7041	.11573

#1	.02164	899.4	-.02583	.03966	20.818
#2	.02003	897.5	-.02441	.03872	20.784

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit		90.00	9.0000		
Low Limit		-.2000	-.02000		

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02286	F 23.009	.70829	F -.02509	.45667
Stddev	.00152	.147	.00098	.00472	.00035
%RSD	6.6626	.63976	.13889	18.804	.07706

#1	.02178	22.905	.70760	-.02175	.45692
#2	.02393	23.113	.70899	-.02842	.45642

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit		9.0000		18.000	
Low Limit		-.00500		-.02000	

Sample Name: 480-143474-F-1-B Acquired: 10/26/2018 16:15:11 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **11.335**
 Stddev .014
 %RSD .11911

#1 11.326
 #2 11.345

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	826.91	660.56	20014.	2363.6
Stddev	2.25	1.06	65.	1.5
%RSD	.27234	.15999	.32372	.06477

#1	825.32	659.81	19968.	2362.5
#2	828.50	661.31	20060.	2364.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	28.940%	39.743%	41.918%	63.940%
Range				

Sample Name: 480-143474-F-1-B@5 Acquired: 10/26/2018 16:19:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.25662	.03707	1.2507	.46314
Stddev	.00051	.02016	.00204	.0003	.00193
%RSD	60.624	7.8564	5.5113	.01985	.41757

#1	-.00120	.24237	.03563	1.2508	.46177
#2	-.00048	.27088	.03852	1.2505	.46450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	477.75	.00030	.0105	.00066
Stddev	.00003	2.76	.00011	.0060	.00004
%RSD	30.676	.57822	35.539	57.55	6.2559

#1	.00007	475.79	.00038	.0147	.00068
#2	.00011	479.70	.00023	.0062	.00063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.14558	-.00258	102.16	327.42	.19096
Stddev	.00057	.00044	.58	.22	.00122
%RSD	.38919	17.082	.56721	.06600	.63806

#1	.14517	-.00289	101.75	327.26	.19010
#2	.14598	-.00227	102.57	327.57	.19183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143474-F-1-B@5 Acquired: 10/26/2018 16:19:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	199.45	6.5494	.00026	F 8262.8	.09691
Stddev	.13	.0353	.00010	114.8	.00003
%RSD	.06574	.53948	39.902	1.3898	.03258

#1	199.36	6.5244	.00019	8181.6	.09693
#2	199.55	6.5744	.00034	8344.0	.09689

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00160	F 173.7	-.01130	.00097	3.6204
Stddev	.00225	.0	.00104	.00033	.0517
%RSD	141.06	.0118	9.2196	34.308	1.4280

#1	.00000	173.7	-.01203	.00121	3.5839
#2	.00319	173.7	-.01056	.00074	3.6570

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00423	4.6641	.15832	-.00143	.09935
Stddev	.00121	.0372	.00015	.00350	.00044
%RSD	28.552	.79755	.09684	244.59	.44771

#1	.00509	4.6378	.15821	.00105	.09966
#2	.00338	4.6904	.15843	-.00391	.09903

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143474-F-1-B@5 Acquired: 10/26/2018 16:19:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **3.0870**
 Stddev .0104
 %RSD .33739

#1 3.0944
 #2 3.0796

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1597.1	1148.8	32599.	3117.7
Stddev	2.0	.9	122.	17.5
%RSD	.12526	.08114	.37407	.56292

#1	1598.5	1149.5	32685.	3130.1
#2	1595.7	1148.1	32512.	3105.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	55.896%	69.119%	68.275%	84.339%
Range				

Sample Name: 480-143539-B-1-B Acquired: 10/26/2018 16:23:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	-.00643	.00277	.13597	.02026
Stddev	.00020	.01430	.00044	.00002	.00001
%RSD	33.110	222.47	15.728	.01792	.03573

#1	-.00046	-.01654	.00308	.13598	.02026
#2	-.00075	.00368	.00247	.13595	.02027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	45.882	.00020	-.0042	.00753
Stddev	.00004	.059	.00008	.0070	.00026
%RSD	49.606	.12961	40.949	165.6	3.4887

#1	.00006	45.840	.00014	-.0092	.00735
#2	.00011	45.924	.00026	.0007	.00772

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00143	.01208	9.6090	.01642
Stddev	.00032	.00001	.00019	.0765	.00133
%RSD	545.39	.64020	1.5477	.79646	8.1277

#1	.00029	.00143	.01195	9.6631	.01547
#2	-.00017	.00144	.01221	9.5549	.01736

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143539-B-1-B Acquired: 10/26/2018 16:23:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.235	4.4835	.00100	30.238	.00401
Stddev	.045	.0050	.00009	.084	.00042
%RSD	.31324	.11108	9.1279	.27924	10.461

#1	14.267	4.4800	.00107	30.297	.00371
#2	14.204	4.4871	.00094	30.178	.00430

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	3.928	-.00269	-.00198	8.4402
Stddev	.00051	.007	.00053	.00051	.0293
%RSD	168.75	.1818	19.849	25.696	.34736

#1	-.00006	3.923	-.00307	-.00162	8.4609
#2	.00066	3.933	-.00232	-.00234	8.4194

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.38096	-.00020	-.00127	-.00045
Stddev	.00022	.00067	.00001	.00070	.00019
%RSD	51.975	.17510	4.1371	55.234	41.657

#1	-.00027	.38143	-.00019	-.00176	-.00032
#2	-.00058	.38049	-.00020	-.00077	-.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143539-B-1-B Acquired: 10/26/2018 16:23:51 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00933**
 Stddev .00028
 %RSD 2.9866

#1 **.00952**
 #2 **.00913**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2612.4	1532.7	45151.	3565.1
Stddev	2.8	4.3	78.	4.9
%RSD	.10730	.28206	.17195	.13811

#1	2614.4	1535.8	45097.	3568.6
#2	2610.5	1529.7	45206.	3561.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.430%	92.219%	94.566%	96.444%
Range				

Sample Name: blank Acquired: 10/26/2018 16:27:45 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.00688	.00379	.00174	.00001
Stddev	.00068	.00336	.00055	.00004	.00000
%RSD	267.20	48.844	14.600	2.4817	32.632

#1	-.00073	.00926	.00340	.00178	.00001
#2	.00023	.00450	.00418	.00171	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00945	.00000	-.0008	-.00004
Stddev	.00005	.00094	.00007	.0066	.00012
%RSD	90.141	9.9375	2275.4	848.6	325.18

#1	.00009	.00878	.00005	.0039	-.00012
#2	.00002	.01011	-.00005	-.0054	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00008	.00203	.57543	.00745
Stddev	.00037	.00005	.00001	.04668	.00021
%RSD	690.29	65.619	.71594	8.1117	2.7770

#1	.00021	.00004	.00204	.60843	.00730
#2	-.00032	.00011	.00202	.54242	.00760

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 16:27:45 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00128	.00021	.00018	1.7799	-.00012
Stddev	.00110	.00001	.00030	.0186	.00052
%RSD	85.520	5.8082	165.08	1.0459	434.38

#1	.00206	.00022	.00040	1.7931	-.00048
#2	.00051	.00020	-.00003	1.7668	.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.0715	-.00175	-.00087	-.01549
Stddev	.00127	.0003	.00199	.00131	.01495
%RSD	553.74	.4844	114.05	151.64	96.501

#1	.00067	.0713	-.00034	.00006	-.02606
#2	-.00113	.0718	-.00316	-.00180	-.00492

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00007	-.00027	-.00130	-.00012
Stddev	.00029	.00002	.00014	.00053	.00023
%RSD	59.542	20.805	50.626	40.864	190.92

#1	.00069	.00008	-.00037	-.00093	-.00029
#2	.00028	.00006	-.00018	-.00168	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 16:27:45 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00033**
 Stddev .00026
 %RSD 78.149

#1 **.00015**
 #2 **.00052**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2773.2	1590.3	46819.	3577.9
Stddev	6.7	8.0	277.	9.3
%RSD	.24107	.50374	.59184	.26114

#1	2768.5	1584.6	46623.	3571.3
#2	2777.9	1595.9	47015.	3584.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.057%	95.681%	98.058%	96.789%
Range				

Sample Name: MB 480-441159/1-A Acquired: 10/26/2018 16:31:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	F 1.0354	.00200	.00358	F .00739
Stddev	.00016	.0040	.00111	.00033	.00000
%RSD	45.368	.38274	55.743	9.1802	.06019

#1	.00046	1.0382	.00279	.00335	.00739
#2	.00024	1.0326	.00121	.00382	.00739

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit		.20000			.00200
Low Limit		-.04000			-.00300

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	F 4.7919	.00001	.0087	-.00004
Stddev	.00001	.0137	.00005	.0056	.00007
%RSD	5.8854	.28675	1015.4	64.22	168.26

#1	.00022	4.7822	-.00003	.0126	-.00009
#2	.00021	4.8016	.00004	.0047	.00001

Check ?	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass
High Limit		.50000			
Low Limit		-.05000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00140	-.00025	F .10648	.46123	.01113
Stddev	.00037	.00005	.00071	.00538	.00069
%RSD	26.192	18.477	.66766	1.1668	6.1982

#1	.00114	-.00022	.10698	.45743	.01162
#2	.00165	-.00028	.10598	.46504	.01064

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			.05000		
Low Limit			-.04000		

Sample Name: MB 480-441159/1-A Acquired: 10/26/2018 16:31:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.13611	F .03651	.00011	F 1.2152	.00027
Stddev	.00128	.00017	.00012	.0129	.00005
%RSD	.94072	.45545	108.64	1.0644	18.461

#1	.13520	.03663	.00002	1.2243	.00024
#2	.13701	.03640	.00019	1.2060	.00031

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit		.00300		1.0000	
Low Limit		-.00300		-.50000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.1867	-.00024	-.00042	F 1.7495
Stddev	.00103	.0013	.00017	.00029	.0234
%RSD	604.19	.6884	71.890	67.449	1.3388

#1	-.00090	.1858	-.00036	-.00022	1.7329
#2	.00056	.1876	-.00012	-.00062	1.7660

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					.50000
Low Limit					-.50000

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .03558	F .00804	F .03276	-.00159	.00032
Stddev	.00004	.00013	.00012	.00044	.00030
%RSD	.09864	1.5707	.37467	27.445	93.573

#1	.03560	.00795	.03285	-.00128	.00053
#2	.03555	.00813	.03268	-.00190	.00011

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit	.01000	.00500	.00500		
Low Limit	-.01000	-.00500	-.00200		

Sample Name: MB 480-441159/1-A Acquired: 10/26/2018 16:31:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00488**
 Stddev .00022
 %RSD 4.5800

#1 **.00473**
 #2 **.00504**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2758.2	1580.4	46764.	3608.4
Stddev	9.2	4.7	310.	6.4
%RSD	.33282	.30022	.66290	.17619

#1	2751.7	1577.0	46545.	3612.9
#2	2764.7	1583.8	46983.	3603.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.530%	95.087%	97.943%	97.615%
Range				

Sample Name: LCSSRM 480-441159/2- Acquired: 10/26/2018 16:35:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33658	80.969	1.3027	.71235	2.1569
Stddev	.00008	.168	.0026	.00006	.0001
%RSD	.02426	.20709	.19631	.00902	.00580

#1	.33664	80.851	1.3045	.71231	2.1570
#2	.33652	81.088	1.3008	.71240	2.1568

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.79183	37.733	1.7842	.9264	.44461
Stddev	.00015	.098	.0015	.0159	.00021
%RSD	.01889	.26085	.08216	1.721	.04658

#1	.79172	37.664	1.7853	.9152	.44447
#2	.79193	37.803	1.7832	.9377	.44476

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0798	1.3654	113.84	19.764	.06905
Stddev	.0010	.0014	.15	.044	.00002
%RSD	.09403	.10122	.12847	.22501	.03276

#1	1.0806	1.3664	113.94	19.733	.06903
#2	1.0791	1.3645	113.73	19.796	.06907

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Sample Name: LCSSRM 480-441159/2- Acquired: 10/26/2018 16:35:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.823	1.8419	.91500	2.8244	.84938
Stddev	.020	.0006	.00055	.0051	.00094
%RSD	.10073	.03515	.05992	.17953	.11085

#1	19.809	1.8424	.91538	2.8279	.85005
#2	19.837	1.8415	.91461	2.8208	.84872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.98175	.7954	.44735	1.5881	8.7766
Stddev	.00128	.0065	.00167	.0023	.0124
%RSD	.13014	.8229	.37367	.14585	.14165

#1	.98085	.8001	.44854	1.5865	8.7854
#2	.98265	.7908	.44617	1.5897	8.7678

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.90782	.92659	4.2417	1.4036	.49616
Stddev	.00013	.00087	.0044	.0007	.00109
%RSD	.01413	.09341	.10400	.05025	.22043

#1	.90773	.92720	4.2448	1.4041	.49693
#2	.90791	.92598	4.2386	1.4031	.49538

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCSSRM 480-441159/2- Acquired: 10/26/2018 16:35:26 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.5608**
 Stddev .0006
 %RSD .03837

#1 1.5604
 #2 1.5612

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.4	1725.7	51031.	4071.7
Stddev	3.9	3.3	59.	14.8
%RSD	.15166	.19259	.11501	.36467

#1	2556.7	1723.3	50989.	4082.2
#2	2562.2	1728.0	51072.	4061.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.575%	103.83%	106.88%	110.15%
Range				

Sample Name: 480-143525-B-20-A Acquired: 10/26/2018 16:39:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00260	194.58	.07752	.73457	1.6021
Stddev	.00017	.38	.00005	.00026	.0062
%RSD	6.4286	.19467	.06780	.03552	.38685

#1	-.00248	194.84	.07756	.73476	1.6065
#2	-.00272	194.31	.07748	.73439	1.5978

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02921	F 1164.9	.00090	.6902	.03589
Stddev	.00006	.0	.00000	.0044	.00040
%RSD	.20981	.00210	.25918	.6399	1.1045

#1	.02925	1164.9	.00090	.6871	.03617
#2	.02917	1164.9	.00091	.6933	.03561

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22708	.03962	348.53	9.0331	.30773
Stddev	.00067	.00014	.68	.0526	.00041
%RSD	.29519	.36067	.19479	.58220	.13393

#1	.22661	.03972	349.01	9.0703	.30802
#2	.22756	.03952	348.05	8.9960	.30744

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-20-A Acquired: 10/26/2018 16:39:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	46.647	22.373	.00424	3.7452	.05026
Stddev	.019	.012	.00007	.0045	.00016
%RSD	.04055	.05488	1.7436	.12103	.32551

#1	46.660	22.381	.00429	3.7420	.05015
#2	46.633	22.364	.00419	3.7484	.05038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06481	87.22	F -.02748	.03331	6.4131
Stddev	.00055	.14	.00306	.00139	.0106
%RSD	.84316	.1571	11.122	4.1600	.16516

#1	.06520	87.32	-.02964	.03429	6.4206
#2	.06442	87.12	-.02532	.03233	6.4056

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04234	2.0299	8.0420	-.01458	.20139
Stddev	.00028	.0118	.0015	.00187	.00060
%RSD	.67279	.57891	.01828	12.858	.30017

#1	.04255	2.0382	8.0410	-.01325	.20096
#2	.04214	2.0216	8.0431	-.01591	.20182

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-20-A Acquired: 10/26/2018 16:39:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.06627**
Stddev .00047
%RSD .70893

#1 **.06594**
#2 **.06660**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1980.6	1834.9	55158.	4684.6
Stddev	1.4	1.3	36.	11.7
%RSD	.07199	.07010	.06507	.24992

#1	1981.7	1834.0	55184.	4676.3
#2	1979.6	1835.8	55133.	4692.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.319%	110.40%	115.52%	126.73%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 16:43:14 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48576	23.357	.48031	.46954	.48669	.46557	23.906	.49270
Stddev	.00088	.122	.00197	.00010	.00260	.00012	.029	.00012
%RSD	.18017	.52430	.40999	.02072	.53347	.02500	.12180	.02483
#1	.48514	23.444	.47892	.46947	.48485	.46549	23.885	.49278
#2	.48638	23.271	.48170	.46961	.48852	.46565	23.926	.49261

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0165	.47813	.48372	.48561	23.231	24.194	.47238	23.590
Stddev	.0088	.00054	.00194	.00088	.013	.028	.00232	.023
%RSD	53.46	.11348	.40038	.18053	.05406	.11555	.49091	.09576
#1	-.0103	.47851	.48509	.48623	23.240	24.214	.47402	23.574
#2	-.0228	.47775	.48235	.48499	23.222	24.175	.47074	23.606

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49254	.48986	23.913	.47323	.47681	24.81	.48588	.48076
Stddev	.00025	.00005	.078	.00013	.00041	.02	.00150	.00311
%RSD	.05103	.01069	.32726	.02755	.08516	.0942	.30832	.64708
#1	.49272	.48982	23.969	.47314	.47652	24.83	.48482	.48296
#2	.49237	.48989	23.858	.47332	.47710	24.79	.48694	.47856

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 16:43:14 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.046	.49007	.48959	.49480	.47189	.48228	.47475
Stddev	.208	.00022	.00179	.00129	.00032	.00143	.00103
%RSD	.86550	.04535	.36659	.25977	.06825	.29618	.21716

#1	23.899	.49022	.49086	.49389	.47166	.48329	.47548
#2	24.193	.48991	.48832	.49571	.47211	.48127	.47402

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2647.8	1563.1	46077.	3608.5
Stddev	1.1	.1	69.	3.5
%RSD	.04020	.00552	.15062	.09628

#1	2648.6	1563.1	46028.	3606.1
#2	2647.1	1563.2	46126.	3611.0

Sample Name: CCB-4957862 Acquired: 10/26/2018 16:46:57 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00201	.00166	.00104	.00002	.00007	.01193	-.00001
Stddev	.00004	.00461	.00116	.00019	.00000	.00000	.00283	.00013
%RSD	64.748	229.15	69.860	18.270	12.656	.58614	23.732	1743.9

#1	.00009	.00125	.00084	.00117	.00002	.00007	.00992	.00009
#2	.00003	-.00527	.00249	.00090	.00002	.00007	.01393	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	-.00015	.00003	-.00007	.00090	.28185	.00194	.00008
Stddev	.0019	.00004	.00007	.00002	.00111	.00525	.00008	.00049
%RSD	65.27	23.806	230.10	25.035	124.30	1.8630	4.2988	582.68

#1	.0043	-.00013	-.00002	-.00008	.00011	.28556	.00200	.00043
#2	.0016	-.00018	.00008	-.00005	.00168	.27813	.00188	-.00026

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00101	.76598	.00001	-.00028	.0369	-.00061	-.00094
Stddev	.00006	.00006	.01159	.00003	.00051	.0019	.00044	.00133
%RSD	22.897	6.3080	1.5132	517.65	177.95	5.118	71.911	142.26

#1	.00024	.00106	.75778	.00003	-.00064	.0382	-.00092	-.00188
#2	.00033	.00096	.77418	-.00002	.00007	.0355	-.00030	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 16:46:57 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00762	.00028	-.00001	.00002	-.00093	-.00001	.00049
Stddev	.00667	.00121	.00007	.00023	.00033	.00014	.00042
%RSD	87.597	433.99	471.22	939.47	35.019	934.83	86.253

#1	.00290	-.00058	.00003	-.00014	-.00070	.00008	.00079
#2	.01233	.00114	-.00006	.00019	-.00116	-.00011	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2830.9	1615.0	47680.	3650.8
Stddev	2.8	3.1	219.	11.2
%RSD	.09796	.18986	.45858	.30792

#1	2828.9	1612.8	47835.	3642.8
#2	2832.8	1617.2	47526.	3658.7

Sample Name: CCVL-4954076 Acquired: 10/26/2018 16:50:49 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00567	.19316	.01553	.02001	.00205	.00189	.50484
Stddev	.00041	.00168	.00190	.00007	.00001	.00003	.00122
%RSD	7.1664	.86879	12.203	.36386	.42571	1.5532	.24253
#1	.00596	.19198	.01687	.02006	.00205	.00187	.50571
#2	.00539	.19435	.01419	.01996	.00204	.00191	.50398

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00199	.0195	.00372	.00378	.00945	.04826	W .65837
Stddev	.00002	.0059	.00006	.00012	.00007	.00115	.03484
%RSD	1.0577	30.44	1.4971	3.1790	.69190	2.3742	5.2911
#1	.00197	.0153	.00376	.00386	.00941	.04745	.63374
#2	.00200	.0237	.00368	.00369	.00950	.04907	.68300

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn
Value							.50000
Range							30.000%

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03084	.19901	.00296	.00976	W 1.4968	.00950	.01042
Stddev	.00019	.00007	.00001	.00009	.0032	.00002	.00091
%RSD	.61808	.03768	.22096	.95869	.21610	.20296	8.7550
#1	.03070	.19896	.00296	.00983	1.4991	.00949	.00977
#2	.03097	.19907	.00297	.00970	1.4945	.00952	.01106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value					1.0000		
Range					30.000%		

Sample Name: CCVL-4954076 Acquired: 10/26/2018 16:50:49 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2516	.01824	.02115	.44367	.00997	.00492	.00474
Stddev	.0035	.00093	.00106	.01637	.00011	.00002	.00008
%RSD	1.389	5.1045	5.0194	3.6886	1.0585	.46045	1.5989
#1	.2541	.01758	.02040	.43210	.00990	.00493	.00469
#2	.2492	.01890	.02190	.45524	.01005	.00490	.00480

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.01851	.00469	.01092
Stddev	.00042	.00015	.00023
%RSD	2.2846	3.3043	2.0865
#1	.01821	.00458	.01076
#2	.01881	.00480	.01108

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2771.8	1591.6	46891.	3603.0
Stddev	.0	.6	26.	10.7
%RSD	.00058	.03706	.05527	.29804
#1	2771.8	1592.0	46909.	3595.4
#2	2771.8	1591.2	46872.	3610.6

Sample Name: 480-143525-B-21-B Acquired: 10/26/2018 16:54:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00144	237.90	.12944	.36868	1.8113
Stddev	.00004	.79	.00060	.00139	.0048
%RSD	2.7618	.33353	.46375	.37741	.26520

#1	.00147	237.34	.12901	.36966	1.8079
#2	.00141	238.46	.12986	.36769	1.8147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03506	F 1063.3	.03389	.6534	.04279
Stddev	.00021	2.9	.00010	.0024	.00018
%RSD	.61254	.27462	.29564	.3692	.42380

#1	.03491	1061.2	.03382	.6517	.04291
#2	.03521	1065.4	.03396	.6551	.04266

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22953	.24323	413.37	16.912	.43346
Stddev	.00059	.00041	1.75	.064	.00133
%RSD	.25595	.16879	.42227	.37811	.30744

#1	.22994	.24352	412.13	16.867	.43252
#2	.22911	.24294	414.60	16.957	.43440

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-21-B Acquired: 10/26/2018 16:54:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mn2576	Mo2020	Na5895
Line	279.079 {121}2	257.610 {131}2	257.610 {131}3	202.030 {467}	589.592 { 57}
IS Ref	(Y_3600)	(Y_3774)	(Y_3600)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	64.360	15.044	14.459	.01363	4.7335
Stddev	.173	.057	.033	.00043	.0163
%RSD	.26858	.38201	.22682	3.1456	.34343

#1	64.482	15.003	14.482	.01332	4.7220
#2	64.237	15.084	14.436	.01393	4.7450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19751	2.2120	33.51	F -.03221	.02049
Stddev	.00026	.0041	.04	.00011	.00336
%RSD	.13395	.18517	.1208	.33231	16.418

#1	.19770	2.2091	33.48	-.03228	.02287
#2	.19732	2.2149	33.53	-.03213	.01811

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				9.0000	
Low Limit				-.02000	

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.1389	.13500	2.0731	6.7236	-.00712
Stddev	.0107	.00023	.0074	.0068	.00122
%RSD	.17452	.17089	.35747	.10060	17.185

#1	6.1314	.13483	2.0679	6.7284	-.00798
#2	6.1465	.13516	2.0784	6.7188	-.00625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-21-B Acquired: 10/26/2018 16:54:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	.14924	5.2486
Stddev	.00054	.0107
%RSD	.36255	.20460

#1	.14963	5.2561
#2	.14886	5.2410

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1993.3	1752.8	52621.	4468.1
Stddev	4.2	2.9	181.	7.6
%RSD	.21249	.16826	.34329	.16953

#1	1990.3	1750.7	52493.	4473.4
#2	1996.3	1754.9	52749.	4462.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.762%	105.46%	110.21%	120.87%
Range				

Sample Name: 480-143525-B-22-B Acquired: 10/26/2018 16:58:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00268	235.95	.08805	.53797	2.4607
Stddev	.00017	.20	.00563	.00085	.0014
%RSD	6.2999	.08467	6.3940	.15820	.05760

#1	-.00257	235.81	.08407	.53857	2.4617
#2	-.00280	236.09	.09203	.53736	2.4597

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03084	F 1343.8	.00113	.6006	.03897
Stddev	.00003	5.6	.00005	.0114	.00022
%RSD	.10312	.41649	4.6302	1.902	.56370

#1	.03086	1347.7	.00110	.5925	.03913
#2	.03081	1339.8	.00117	.6087	.03882

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11372	.06725	381.87	12.021	.43187
Stddev	.00009	.00008	.76	.038	.00046
%RSD	.07759	.12631	.19910	.31904	.10576

#1	.11378	.06719	382.41	11.994	.43219
#2	.11365	.06731	381.33	12.048	.43154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-22-B Acquired: 10/26/2018 16:58:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	59.556	17.082	.01063	4.2984	.13251
Stddev	.076	.007	.00027	.0047	.00012
%RSD	.12687	.04316	2.4982	.10886	.08920

#1	59.503	17.077	.01044	4.3017	.13243
#2	59.610	17.087	.01082	4.2951	.13260

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01335	74.00	F -.02913	.03368	7.4295
Stddev	.00280	.08	.00068	.00104	.0166
%RSD	20.950	.1143	2.3185	3.0934	.22366

#1	.01137	74.06	-.02866	.03442	7.4178
#2	.01533	73.94	-.02961	.03295	7.4413

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03974	4.3014	7.6075	-.01062	.16374
Stddev	.00013	.0187	.0135	.00189	.00069
%RSD	.33266	.43482	.17793	17.773	.41858

#1	.03984	4.2882	7.5979	-.00929	.16326
#2	.03965	4.3146	7.6171	-.01196	.16423

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-22-B Acquired: 10/26/2018 16:58:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.06853**
 Stddev .00000
 %RSD .00239

#1 **.06853**
 #2 **.06853**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1945.1	1700.1	51492.	4373.2
Stddev	.7	2.3	40.	.8
%RSD	.03569	.13429	.07856	.01806

#1	1944.6	1698.5	51521.	4372.6
#2	1945.6	1701.7	51464.	4373.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.076%	102.29%	107.85%	118.30%
Range				

Sample Name: 480-143525-B-23-B Acquired: 10/26/2018 17:02:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	155.75	.02549	.39785	1.1221
Stddev	.00022	.47	.00164	.00095	.0023
%RSD	278.40	.30049	6.4339	.23950	.20435

#1	.00008	156.08	.02433	.39853	1.1237
#2	-.00024	155.42	.02665	.39718	1.1205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02540	788.00	.00148	.3965	.01753
Stddev	.00005	1.45	.00001	.0176	.00003
%RSD	.20278	.18431	.80361	4.445	.17108

#1	.02543	789.03	.00147	.4089	.01751
#2	.02536	786.98	.00149	.3840	.01755

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03446	.04984	72.151	11.178	.26006
Stddev	.00044	.00000	.142	.011	.00013
%RSD	1.2722	.00821	.19648	.10241	.05140

#1	.03415	.04984	72.252	11.186	.26016
#2	.03477	.04984	72.051	11.170	.25997

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-23-B Acquired: 10/26/2018 17:02:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	22.852	6.1271	.00434	2.7860	.04667
Stddev	.020	.0104	.00027	.0009	.00014
%RSD	.08877	.16935	6.1739	.03220	.29498

#1	22.838	6.1198	.00453	2.7854	.04657
#2	22.866	6.1345	.00415	2.7866	.04677

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05642	F 93.86	-.01063	.01799	7.1073
Stddev	.00013	.21	.00288	.00525	.0022
%RSD	.23898	.2220	27.109	29.201	.03056

#1	.05633	94.00	-.00859	.01427	7.1089
#2	.05652	93.71	-.01267	.02170	7.1058

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03948	1.6083	2.8160	-.00302	.06914
Stddev	.00208	.0042	.0002	.00228	.00050
%RSD	5.2728	.26094	.00561	75.496	.71717

#1	.04095	1.6113	2.8159	-.00141	.06879
#2	.03801	1.6054	2.8162	-.00463	.06949

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-23-B Acquired: 10/26/2018 17:02:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.30576**
Stddev .00095
%RSD .30908

#1 **.30643**
#2 **.30509**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2194.9	1718.1	51164.	4314.3
Stddev	1.9	6.4	7.	19.0
%RSD	.08473	.37172	.01452	.44053

#1	2193.6	1713.6	51159.	4300.8
#2	2196.3	1722.6	51169.	4327.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.819%	103.37%	107.16%	116.71%
Range				

Sample Name: 480-143525-B-24-B Acquired: 10/26/2018 17:06:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00123	118.55	.19732	.14472	.67213
Stddev	.00002	.60	.00404	.00081	.00028
%RSD	1.8767	.50270	2.0475	.55989	.04221

#1	-.00125	118.97	.19447	.14529	.67193
#2	-.00121	118.13	.20018	.14415	.67233

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00578	220.38	.00153	.3629	.11367
Stddev	.00002	2.14	.00036	.0172	.00017
%RSD	.29758	.97179	23.717	4.747	.15258

#1	.00579	221.89	.00179	.3507	.11380
#2	.00577	218.87	.00128	.3751	.11355

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15640	.21461	233.41	27.790	.22325
Stddev	.00008	.00016	1.22	.111	.00097
%RSD	.05225	.07592	.52072	.39788	.43328

#1	.15635	.21472	234.27	27.868	.22393
#2	.15646	.21449	232.55	27.712	.22256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-24-B Acquired: 10/26/2018 17:06:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	79.974	2.8939	.03365	1.6216	.28394
Stddev	.113	.0033	.00020	.0023	.00060
%RSD	.14171	.11445	.59358	.14088	.21213

#1	79.894	2.8916	.03351	1.6232	.28352
#2	80.054	2.8963	.03379	1.6200	.28437

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.12542	.6006	-.01894	-.00372	9.2921
Stddev	.00158	.0018	.00120	.00275	.0769
%RSD	1.2590	.3038	6.3180	73.810	.82709

#1	.12654	.5993	-.01978	-.00178	9.3465
#2	.12431	.6019	-.01809	-.00566	9.2378

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04475	.39742	1.1789	.00028	.21284
Stddev	.00084	.00194	.0002	.00058	.00021
%RSD	1.8862	.48854	.01374	204.44	.10044

#1	.04415	.39880	1.1790	-.00013	.21299
#2	.04535	.39605	1.1788	.00070	.21269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-24-B Acquired: 10/26/2018 17:06:48 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.52912**
 Stddev .00407
 %RSD .76831

#1 **.52624**
 #2 **.53199**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2352.0	1630.8	49396.	4003.7
Stddev	1.4	4.9	42.	30.5
%RSD	.05754	.30053	.08576	.76152

#1	2351.1	1627.4	49366.	3982.1
#2	2353.0	1634.3	49426.	4025.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.317%	98.121%	103.46%	108.31%
Range				

Sample Name: 480-143525-A-25-F Acquired: 10/26/2018 17:10:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00142	67.965	.11303	.17085	.95696
Stddev	.00004	.048	.00177	.00147	.00311
%RSD	2.5613	.06999	1.5684	.85750	.32463

#1	-.00139	67.999	.11428	.17189	.95915
#2	-.00145	67.932	.11177	.16982	.95476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01166	277.84	.01596	.4860	.06853
Stddev	.00002	.69	.00002	.0005	.00006
%RSD	.14347	.24847	.12300	.0931	.08940

#1	.01165	278.33	.01595	.4863	.06849
#2	.01167	277.36	.01597	.4857	.06857

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.72192	1.3297	F 1272.0	11.682	.10515
Stddev	.00139	.0000	.7	.005	.00073
%RSD	.19196	.00033	.05343	.04336	.69680

#1	.72290	1.3297	1271.6	11.685	.10567
#2	.72094	1.3297	1272.5	11.678	.10463

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 480-143525-A-25-F Acquired: 10/26/2018 17:10:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	54.810	24.506	.11530	2.3793	.43463
Stddev	.047	.007	.00013	.0023	.00075
%RSD	.08586	.02683	.11128	.09783	.17342

#1	54.843	24.502	.11539	2.3809	.43517
#2	54.776	24.511	.11521	2.3777	.43410

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.9289	9.836	F -.09211	.01055	19.615
Stddev	.0031	.013	.00140	.00162	.007
%RSD	.10588	.1268	1.5234	15.371	.03429

#1	2.9267	9.828	-.09311	.01170	19.620
#2	2.9311	9.845	-.09112	.00940	19.610

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17106	.69003	2.9917	-.01214	.23064
Stddev	.00148	.00141	.0019	.00137	.00052
%RSD	.86536	.20494	.06424	11.292	.22401

#1	.17001	.69103	2.9930	-.01311	.23027
#2	.17210	.68903	2.9903	-.01117	.23100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-25-F Acquired: 10/26/2018 17:10:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **4.7256**
 Stddev .0019
 %RSD .03976

#1 4.7242
 #2 4.7269

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2177.6	1467.4	45582.	3645.0
Stddev	3.0	.1	136.	2.4
%RSD	.13921	.00586	.29766	.06656

#1	2175.4	1467.5	45486.	3643.2
#2	2179.7	1467.4	45678.	3646.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.211%	88.289%	95.468%	98.603%
Range				

Sample Name: 143525-A-25-Fsd@5 Acquired: 10/26/2018 17:14:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00088	13.877	.02365	.03789	.19974
Stddev	.00056	.018	.00227	.00026	.00004
%RSD	63.449	.13084	9.5960	.68729	.01903

#1	-.00128	13.890	.02525	.03770	.19971
#2	-.00049	13.864	.02204	.03807	.19976

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00250	62.573	.00335	.1003	.01362
Stddev	.00003	.050	.00007	.0062	.00021
%RSD	1.2336	.08057	2.1730	6.222	1.5213

#1	.00248	62.608	.00330	.0959	.01377
#2	.00253	62.537	.00341	.1047	.01348

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16198	.27293	279.87	2.3928	.02297
Stddev	.00024	.00023	.42	.0109	.00021
%RSD	.14704	.08323	.15138	.45417	.90798

#1	.16215	.27309	280.17	2.4005	.02282
#2	.16181	.27277	279.57	2.3851	.02312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143525-A-25-Fsd@5 Acquired: 10/26/2018 17:14:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.746	5.4813	.02464	.69015	.08734
Stddev	.010	.0056	.00027	.00062	.00007
%RSD	.07771	.10232	1.1060	.08941	.08408

#1	12.739	5.4852	.02444	.69059	.08740
#2	12.753	5.4773	.02483	.68972	.08729

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.59535	2.094	F -.02275	.00100	2.8935
Stddev	.00240	.003	.00091	.00080	.0343
%RSD	.40287	.1411	4.0162	79.259	1.1856

#1	.59705	2.097	-.02340	.00044	2.9177
#2	.59365	2.092	-.02211	.00157	2.8692

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03387	.14172	.65512	-.00285	.05007
Stddev	.00037	.00054	.00055	.00170	.00067
%RSD	1.0788	.37769	.08345	59.865	1.3463

#1	.03412	.14210	.65474	-.00164	.04959
#2	.03361	.14134	.65551	-.00405	.05055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143525-A-25-Fsd@5 Acquired: 10/26/2018 17:14:42 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.1391**
 Stddev .0006
 %RSD .05065

#1 1.1395
 #2 1.1387

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2565.1	1537.2	46175.	3610.1
Stddev	.6	1.6	28.	5.5
%RSD	.02496	.10525	.06001	.15140

#1	2565.5	1538.3	46195.	3606.3
#2	2564.6	1536.1	46156.	3614.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.772%	92.488%	96.710%	97.661%
Range				

Sample Name: 480-143525-A-25-Fpds Acquired: 10/26/2018 17:18:30 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09516	84.550	.51745	.54789	1.3092
Stddev	.00042	.182	.00134	.00033	.0039
%RSD	.44287	.21531	.25945	.06069	.29464

#1	.09546	84.679	.51840	.54766	1.3119
#2	.09486	84.421	.51650	.54813	1.3065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.38759	285.68	.41544	.4696	.47536
Stddev	.00113	.12	.00039	.0228	.00039
%RSD	.29145	.04197	.09413	4.859	.08187

#1	.38839	285.59	.41571	.4857	.47509
#2	.38679	285.76	.41516	.4535	.47564

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0542	1.6742	F 1235.3	31.435	.51179
Stddev	.0027	.0029	5.3	.088	.00131
%RSD	.25497	.17077	.42608	.28132	.25591

#1	1.0561	1.6762	1239.0	31.498	.51272
#2	1.0523	1.6721	1231.6	31.373	.51087

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 480-143525-A-25-Fpds Acquired: 10/26/2018 17:18:30 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	70.329	23.802	.49125	22.311	.84371
Stddev	.133	.095	.00102	.065	.00077
%RSD	.18849	.39774	.20807	.29335	.09083

#1	70.235	23.869	.49197	22.357	.84317
#2	70.423	23.735	.49053	22.264	.84425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.2472	9.521	.30667	.40935	19.436
Stddev	.0016	.007	.00402	.00273	.096
%RSD	.05062	.0739	1.3109	.66707	.49300

#1	3.2484	9.516	.30951	.40742	19.503
#2	3.2461	9.526	.30383	.41128	19.368

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.57994	1.0572	3.2560	.37904	.59938
Stddev	.00088	.0040	.0032	.00029	.00011
%RSD	.15146	.38144	.09828	.07725	.01880

#1	.57932	1.0601	3.2537	.37883	.59946
#2	.58056	1.0544	3.2582	.37925	.59930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-25-Fpds Acquired: 10/26/2018 17:18:30 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **4.9054**
 Stddev .0061
 %RSD .12405

#1 **4.9011**
 #2 **4.9097**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2143.1	1451.4	44952.	3614.8
Stddev	1.5	4.6	146.	13.6
%RSD	.07147	.31522	.32545	.37665

#1	2142.0	1448.1	44848.	3605.2
#2	2144.2	1454.6	45055.	3624.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.005%	87.323%	94.148%	97.788%
Range				

Sample Name: 480-143525-A-25-G MS Acquired: 10/26/2018 17:22:28 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09201	120.65	.46331	.52604	1.2122
Stddev	.00018	.19	.00305	.00148	.0030
%RSD	.19788	.15906	.65878	.28160	.24757

#1	.09188	120.79	.46115	.52499	1.2143
#2	.09214	120.52	.46547	.52708	1.2101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35952	336.41	.39560	.4611	.45144
Stddev	.00074	.36	.00019	.0001	.00066
%RSD	.20459	.10742	.04907	.0312	.14591

#1	.36004	336.66	.39574	.4610	.45191
#2	.35900	336.15	.39547	.4612	.45098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.96311	1.5911	F 965.50	40.051	.51561
Stddev	.00296	.0007	.24	.141	.00150
%RSD	.30696	.04507	.02535	.35099	.29174

#1	.96102	1.5906	965.33	40.150	.51668
#2	.96520	1.5916	965.67	39.951	.51455

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 480-143525-A-25-G MS Acquired: 10/26/2018 17:22:28 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	79.676	24.814	.43498	21.120	.77142
Stddev	.235	.034	.00224	.045	.00060
%RSD	.29466	.13833	.51605	.21080	.07807

#1	79.510	24.838	.43657	21.152	.77099
#2	79.842	24.789	.43339	21.089	.77185

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.6192	28.28	.16570	.36985	24.397
Stddev	.0025	.00	.00357	.00078	.179
%RSD	.06838	.0010	2.1541	.21177	.73394

#1	3.6210	28.28	.16822	.37041	24.523
#2	3.6175	28.28	.16317	.36930	24.270

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.59948	1.2042	3.6207	.34307	.55412
Stddev	.00020	.0030	.0103	.00130	.00114
%RSD	.03288	.24578	.28343	.37820	.20571

#1	.59934	1.2063	3.6134	.34398	.55331
#2	.59962	1.2021	3.6280	.34215	.55493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-25-G MS Acquired: 10/26/2018 17:22:28 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **5.6524**
 Stddev .0337
 %RSD .59633

#1 5.6285
 #2 5.6762

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2147.3	1489.1	46049.	3738.7
Stddev	4.6	2.1	79.	6.2
%RSD	.21350	.14109	.17153	.16541

#1	2144.0	1487.6	46105.	3734.3
#2	2150.5	1490.6	45993.	3743.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.150%	89.595%	96.446%	101.14%
Range				

Sample Name: blank Acquired: 10/26/2018 17:26:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00166	.00074	.00051	.00003
Stddev	.00008	.00960	.00002	.00007	.00002
%RSD	885.57	577.45	3.1207	14.025	63.016

#1	-.00005	.00512	.00076	.00046	.00001
#2	.00006	-.00845	.00072	.00056	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.01166	-.00001	-.0058	-.00019
Stddev	.00005	.00178	.00006	.0070	.00013
%RSD	71.464	15.305	404.98	120.5	70.985

#1	.00011	.01292	.00003	-.0009	-.00028
#2	.00004	.01039	-.00006	-.0107	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	-.00027	.02680	.10524	.00160
Stddev	.00009	.00024	.00130	.01027	.00104
%RSD	41.272	89.591	4.8677	9.7607	65.372

#1	.00029	-.00010	.02588	.11251	.00086
#2	.00016	-.00044	.02772	.09798	.00234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 17:26:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00096	.00057	.00046	.24171	-.00031
Stddev	.00158	.00001	.00011	.00484	.00005
%RSD	164.66	1.6579	23.234	2.0028	16.622

#1	-.00016	.00057	.00053	.24514	-.00027
#2	.00208	.00056	.00038	.23829	-.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00066	.0224	.00018	-.00022	.00177
Stddev	.00051	.0007	.00201	.00028	.00335
%RSD	77.176	3.129	1140.0	124.55	189.36

#1	-.00030	.0219	-.00124	-.00042	-.00060
#2	-.00102	.0229	.00159	-.00003	.00414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00001	.00221	-.00162	-.00000
Stddev	.00051	.00005	.00022	.00152	.00017
%RSD	199.08	528.96	9.8063	93.831	9471.5

#1	-.00010	-.00003	.00205	-.00055	-.00012
#2	.00062	.00005	.00236	-.00270	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 17:26:25 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00084**
 Stddev .00041
 %RSD 48.309

#1 **.00113**
 #2 **.00055**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2807.2	1599.9	47603.	3614.2
Stddev	2.3	.7	158.	5.7
%RSD	.08305	.04643	.33119	.15732

#1	2808.9	1599.4	47715.	3618.3
#2	2805.6	1600.4	47492.	3610.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.247%	96.260%	99.701%	97.772%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 17:30:17 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49007	23.793	.48708	.47582	.49289	.46635	23.824	.49920
Stddev	.00001	.055	.00206	.00153	.00422	.00042	.038	.00066
%RSD	.00256	.22962	.42329	.32212	.85543	.09073	.15916	.13265
#1	.49008	23.831	.48854	.47474	.49587	.46605	23.851	.49873
#2	.49006	23.754	.48562	.47690	.48991	.46665	23.797	.49967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0103	.48133	.48903	.48766	23.400	24.103	.47392	23.728
Stddev	.0164	.00095	.00043	.00101	.003	.013	.00021	.016
%RSD	158.5	.19824	.08837	.20797	.01437	.05292	.04492	.06636
#1	.0012	.48066	.48933	.48838	23.397	24.094	.47407	23.716
#2	-.0219	.48201	.48872	.48694	23.402	24.112	.47377	23.739

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49456	.49303	24.169	.47443	.48192	25.27	.49237	.48547
Stddev	.00027	.00023	.014	.00058	.00258	.05	.00058	.00045
%RSD	.05424	.04747	.05677	.12316	.53476	.2107	.11811	.09216
#1	.49475	.49286	24.179	.47402	.48009	25.31	.49278	.48515
#2	.49437	.49319	24.160	.47484	.48374	25.23	.49196	.48578

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 17:30:17 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.423	.49439	.50071	.48724	.47195	.48890	.47560
Stddev	.238	.00169	.00089	.00069	.00100	.00030	.00085
%RSD	.97538	.34181	.17700	.14179	.21278	.06155	.17847

#1	24.255	.49558	.50133	.48676	.47124	.48911	.47620
#2	24.592	.49319	.50008	.48773	.47266	.48869	.47500

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2634.9	1545.5	45806.	3563.1
Stddev	1.0	.8	129.	11.8
%RSD	.03661	.05238	.28068	.33232

#1	2634.2	1546.1	45715.	3554.7
#2	2635.6	1544.9	45897.	3571.4

Sample Name: CCB-4957862 Acquired: 10/26/2018 17:34:00 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00405	.00048	.00035	.00001	.00002	.00344	-.00003
Stddev	.00016	.01121	.00036	.00025	.00002	.00006	.00084	.00002
%RSD	121.61	276.97	73.617	70.589	123.21	292.02	24.558	65.398

#1	-.00024	-.00388	.00023	.00018	.00003	.00006	.00284	-.00002
#2	-.00002	.01198	.00074	.00053	.00000	-.00002	.00403	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065	-.00014	.00013	-.00049	.00181	.08912	.00125	.00215
Stddev	.0053	.00017	.00045	.00032	.00211	.00306	.00030	.00370
%RSD	81.57	127.79	341.70	66.539	116.70	3.4386	23.908	172.57

#1	.0028	-.00001	-.00019	-.00072	.00330	.09129	.00146	-.00047
#2	.0103	-.00026	.00045	-.00026	.00032	.08695	.00103	.00477

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00103	.26906	-.00011	-.00104	.0159	-.00018	-.00219
Stddev	.00003	.00011	.00055	.00006	.00040	.0004	.00068	.00025
%RSD	12.793	10.678	.20443	58.567	38.706	2.662	373.41	11.433

#1	.00026	.00095	.26867	-.00006	-.00132	.0162	.00030	-.00201
#2	.00022	.00110	.26945	-.00016	-.00075	.0156	-.00066	-.00236

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 17:34:00 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01101	.00051	.00003	.00021	.00002	-.00002	.00063
Stddev	.00210	.00054	.00000	.00012	.00023	.00016	.00001
%RSD	19.038	106.94	.51852	58.912	1102.5	986.09	1.2901

#1	.01249	.00089	.00003	.00012	-.00014	-.00013	.00064
#2	.00953	.00012	.00003	.00030	.00018	.00010	.00063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.4	1592.5	47851.	3664.2
Stddev	1.5	1.1	55.	13.1
%RSD	.05195	.06880	.11539	.35798

#1	2817.3	1591.8	47890.	3673.4
#2	2819.4	1593.3	47812.	3654.9

Sample Name: CCVL-4954076 Acquired: 10/26/2018 17:37:53 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00551	.20821	.01544	.01993	.00205	.00197	.49685	.00205
Stddev	.00014	.00442	.00136	.00008	.00002	.00004	.00035	.00018
%RSD	2.5157	2.1214	8.8233	.42163	.86187	2.1112	.07139	8.5543
#1	.00560	.20509	.01641	.01999	.00206	.00194	.49659	.00193
#2	.00541	.21134	.01448	.01987	.00204	.00200	.49710	.00218

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0045	.00373	.00392	.00944	.05030	.58569	.02977	.20180
Stddev	.0186	.00005	.00038	.00035	.00227	.00259	.00180	.00131
%RSD	416.6	1.4006	9.6429	3.6870	4.5205	.44230	6.0453	.65025
#1	.0087	.00369	.00365	.00968	.04869	.58752	.02850	.20087
#2	-.0176	.00376	.00419	.00919	.05190	.58386	.03104	.20273

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00282	.00988	1.1754	.00961	.00873	.2232	.01872	.02265
Stddev	.00004	.00016	.0069	.00016	.00046	.0043	.00049	.00049
%RSD	1.4353	1.6200	.58729	1.6418	5.2657	1.922	2.6079	2.1508
#1	.00279	.00976	1.1705	.00950	.00841	.2263	.01837	.02231
#2	.00285	.00999	1.1803	.00972	.00906	.2202	.01906	.02300

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 17:37:53 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45867	.00979	.00490	.00465	.01809	.00475	.01100
Stddev	.03584	.00060	.00006	.00004	.00088	.00019	.00032
%RSD	7.8146	6.1522	1.2991	.91792	4.8722	4.0106	2.9231

#1	.43332	.01021	.00485	.00468	.01871	.00489	.01123
#2	.48401	.00936	.00494	.00462	.01746	.00462	.01078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2773.8	1581.5	46804.	3567.3
Stddev	2.8	3.2	87.	.4
%RSD	.09950	.20441	.18490	.01041

#1	2775.8	1583.8	46743.	3567.5
#2	2771.9	1579.2	46865.	3567.0

Sample Name: 143525-A-25-H MSd Acquired: 10/26/2018 17:41:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09018	110.06	.49528	.55144	1.2403
Stddev	.00071	.16	.00287	.00075	.0013
%RSD	.78230	.14534	.57868	.13686	.10111

#1	.09068	109.94	.49731	.55197	1.2394
#2	.08968	110.17	.49326	.55091	1.2412

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35914	349.34	.40343	.5297	.46080
Stddev	.00111	2.69	.00006	.0020	.00043
%RSD	.30776	.76969	.01482	.3783	.09431

#1	.35835	347.43	.40347	.5311	.46111
#2	.35992	351.24	.40339	.5283	.46049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2777	1.8142	F 1246.7	35.768	.50807
Stddev	.0047	.0017	5.1	.092	.00103
%RSD	.36492	.09466	.40527	.25715	.20215

#1	1.2810	1.8154	1243.2	35.703	.50879
#2	1.2744	1.8130	1250.3	35.833	.50734

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 143525-A-25-H MSd Acquired: 10/26/2018 17:41:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	89.884	26.341	.44107	21.451	.83807
Stddev	.201	.056	.00071	.003	.00224
%RSD	.22376	.21321	.16206	.01365	.26711

#1	90.027	26.302	.44158	21.453	.83649
#2	89.742	26.381	.44056	21.449	.83965

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.6402	27.75	.15071	.37591	20.211
Stddev	.0084	.01	.00065	.00402	.005
%RSD	.23061	.0522	.43117	1.0707	.02352

#1	3.6343	27.74	.15025	.37876	20.208
#2	3.6462	27.76	.15117	.37306	20.215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.54986	1.2471	3.1584	.33946	.55135
Stddev	.00086	.0014	.0037	.00004	.00278
%RSD	.15674	.10901	.11691	.01037	.50434

#1	.55046	1.2462	3.1610	.33949	.55331
#2	.54925	1.2481	3.1558	.33944	.54938

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143525-A-25-H MSd Acquired: 10/26/2018 17:41:44 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **5.2271**
 Stddev .0251
 %RSD .47977

#1 **5.2448**
 #2 **5.2093**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2101.5	1442.4	45273.	3647.1
Stddev	3.2	2.7	72.	7.9
%RSD	.15354	.18734	.16007	.21560

#1	2099.2	1440.5	45222.	3652.7
#2	2103.8	1444.3	45325.	3641.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.547%	86.785%	94.822%	98.663%
Range				

Sample Name: 480-143525-B-26-B Acquired: 10/26/2018 17:45:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	249.05	.00301	.57516	1.9284
Stddev	.00031	.75	.00558	.00287	.0048
%RSD	40.846	.30112	185.67	.49982	.24745

#1	-.00097	249.58	.00695	.57719	1.9318
#2	-.00054	248.52	-.00094	.57312	1.9251

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03433	F 1397.9	.00041	.5750	.00306
Stddev	.00016	7.5	.00002	.0213	.00007
%RSD	.47516	.53638	3.8769	3.709	2.1753

#1	.03445	1392.6	.00040	.5901	.00311
#2	.03422	1403.2	.00042	.5599	.00301

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00833	-.00303	5.3557	5.1465	.38262
Stddev	.00008	.00036	.0006	.0424	.00119
%RSD	.98934	11.871	.01111	.82391	.31075

#1	.00827	-.00277	5.3553	5.1765	.38346
#2	.00839	-.00328	5.3561	5.1165	.38178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-26-B Acquired: 10/26/2018 17:45:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	111.30	8.4071	.00201	2.3483	-.00156
Stddev	.05	.0163	.00025	.0052	.00049
%RSD	.04897	.19362	12.309	.21930	31.586

#1	111.27	8.3956	.00183	2.3519	-.00190
#2	111.34	8.4186	.00218	2.3446	-.00121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.01881	F 101.6	-.00601	.03601	5.9180
Stddev	.00223	.3	.00049	.00171	.0166
%RSD	11.846	.2685	8.1568	4.7413	.28087

#1	-.02038	101.8	-.00567	.03480	5.9298
#2	-.01723	101.4	-.00636	.03722	5.9063

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	110.00	90.00			
Low Limit	-.01000	-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03558	2.3754	5.1917	-.00670	.02366
Stddev	.00265	.0271	.0029	.00093	.00001
%RSD	7.4618	1.1421	.05685	13.925	.06157

#1	.03370	2.3946	5.1896	-.00604	.02367
#2	.03746	2.3562	5.1938	-.00737	.02365

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-26-B Acquired: 10/26/2018 17:45:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00676
Stddev .00065
%RSD 9.6579

#1 .00722
#2 .00630

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1979.3	1779.7	52926.	4604.2
Stddev	.1	.4	96.	9.4
%RSD	.00632	.02475	.18052	.20511

#1	1979.3	1779.4	52858.	4597.5
#2	1979.4	1780.0	52994.	4610.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.273%	107.08%	110.85%	124.55%
Range				

Sample Name: 480-143525-A-27-C Acquired: 10/26/2018 17:49:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00113	78.448	.02779	.08797	.36336
Stddev	.00029	.118	.00030	.00022	.00023
%RSD	25.719	.15010	1.0871	.24613	.06380

#1	-.00093	78.365	.02800	.08782	.36320
#2	-.00134	78.531	.02757	.08813	.36353

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00364	257.55	.00160	.3492	.07995
Stddev	.00011	1.83	.00008	.0079	.00041
%RSD	2.9604	.71183	5.1410	2.250	.50683

#1	.00356	256.25	.00154	.3436	.08024
#2	.00371	258.85	.00166	.3547	.07967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10857	.18644	165.91	17.046	.15154
Stddev	.00017	.00009	.09	.024	.00139
%RSD	.16014	.04782	.05204	.14140	.91692

#1	.10844	.18637	165.85	17.063	.15252
#2	.10869	.18650	165.97	17.029	.15055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-27-C Acquired: 10/26/2018 17:49:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	90.357	3.4154	.00836	1.2049	.19808
Stddev	.133	.0152	.00044	.0003	.00006
%RSD	.14699	.44575	5.3002	.02312	.03227

#1	90.451	3.4047	.00867	1.2048	.19812
#2	90.263	3.4262	.00805	1.2051	.19803

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09351	1.239	-.01357	-.00311	8.5516
Stddev	.00141	.009	.00101	.00207	.0352
%RSD	1.5115	.7250	7.4250	66.415	.41121

#1	.09451	1.232	-.01429	-.00458	8.5765
#2	.09251	1.245	-.01286	-.00165	8.5267

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04033	.34580	1.0343	-.00114	.15553
Stddev	.00028	.00097	.0013	.00042	.00011
%RSD	.70081	.28091	.12319	36.524	.07329

#1	.04053	.34512	1.0334	-.00143	.15545
#2	.04013	.34649	1.0352	-.00084	.15561

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-27-C Acquired: 10/26/2018 17:49:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.43505**
Stddev .00193
%RSD .44319

#1 **.43368**
#2 **.43641**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2358.4	1618.9	48806.	3948.3
Stddev	3.8	1.4	69.	4.6
%RSD	.16268	.08567	.14142	.11741

#1	2355.7	1619.9	48758.	3951.5
#2	2361.1	1617.9	48855.	3945.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.539%	97.404%	102.22%	106.81%
Range				

Sample Name: 480-143525-A-28-C Acquired: 10/26/2018 17:53:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	103.78	.13696	.32914	1.1000
Stddev	.00027	.38	.00128	.00089	.0038
%RSD	75.589	.36487	.93563	.26908	.34743

#1	-.00054	104.05	.13786	.32977	1.1027
#2	-.00016	103.52	.13605	.32851	1.0973

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01388	496.28	.01490	.4593	.06467
Stddev	.00008	1.01	.00013	.0099	.00002
%RSD	.60208	.20435	.86764	2.150	.03469

#1	.01393	497.00	.01481	.4523	.06465
#2	.01382	495.56	.01499	.4663	.06468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.43945	.51073	F 768.23	13.676	.18247
Stddev	.00199	.00054	.75	.021	.00048
%RSD	.45338	.10558	.09723	.15673	.26468

#1	.44086	.51111	768.75	13.661	.18281
#2	.43804	.51035	767.70	13.691	.18213

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 480-143525-A-28-C Acquired: 10/26/2018 17:53:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	87.150	14.104	.02660	2.6446	.26983
Stddev	.420	.049	.00020	.0005	.00130
%RSD	.48157	.35015	.73422	.01900	.48041

#1	87.446	14.139	.02674	2.6443	.26892
#2	86.853	14.069	.02646	2.6450	.27075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.4090	15.18	F -.05577	.01178	9.4369
Stddev	.0010	.07	.00299	.00576	.0430
%RSD	.07263	.4802	5.3537	48.870	.45593

#1	1.4097	15.23	-.05366	.00771	9.4065
#2	1.4083	15.13	-.05788	.01586	9.4673

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10151	1.0343	3.2517	-.00879	.25927
Stddev	.00299	.0029	.0121	.00295	.00111
%RSD	2.9431	.27520	.37125	33.560	.42910

#1	.09940	1.0363	3.2602	-.00671	.26006
#2	.10362	1.0323	3.2432	-.01088	.25848

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-28-C Acquired: 10/26/2018 17:53:48 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **4.0060**
 Stddev .0269
 %RSD .67191

#1 4.0250
 #2 3.9870

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2140.2	1547.7	47926.	3876.1
Stddev	2.4	6.1	223.	15.9
%RSD	.11311	.39586	.46544	.41028

#1	2138.5	1543.3	47769.	3864.9
#2	2141.9	1552.0	48084.	3887.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.904%	93.118%	100.38%	104.86%
Range				

Sample Name: 480-143525-A-29-C Acquired: 10/26/2018 17:57:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.00630	74.680	.34975	.27331	2.2304
Stddev	.00071	.249	.00138	.00018	.0068
%RSD	11.270	.33347	.39554	.06413	.30664

#1	-.00680	74.504	.34877	.27318	2.2256
#2	-.00580	74.856	.35073	.27343	2.2352

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	2.0000				
Low Limit	-.00600				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01545	199.56	.00524	.8430	.14614
Stddev	.00002	.32	.00004	.0033	.00039
%RSD	.15959	.16027	.67875	.3924	.26735

#1	.01547	199.33	.00526	.8454	.14587
#2	.01544	199.79	.00521	.8407	.14642

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37622	.35426	F 2141.4	5.1645	.25187
Stddev	.00074	.00004	3.6	.0075	.00065
%RSD	.19657	.01000	.16589	.14501	.25876

#1	.37570	.35429	2138.9	5.1698	.25233
#2	.37674	.35424	2143.9	5.1592	.25141

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 480-143525-A-29-C Acquired: 10/26/2018 17:57:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	31.944	41.057	.02867	1.4346	.49283
Stddev	.043	.026	.00011	.0079	.00128
%RSD	.13417	.06379	.37721	.54783	.25985

#1	31.974	41.038	.02874	1.4290	.49192
#2	31.913	41.075	.02859	1.4402	.49373

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.41288	9.153	F -.15648	.00651	18.661
Stddev	.00263	.032	.00295	.00632	.038
%RSD	.63583	.3495	1.8830	97.108	.20156

#1	.41103	9.176	-.15439	.01098	18.687
#2	.41474	9.130	-.15856	.00204	18.634

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07030	1.5675	3.4147	F -.02702	.56412
Stddev	.00144	.0009	.0050	.00183	.00192
%RSD	2.0523	.05946	.14772	6.7901	.33994

#1	.06928	1.5668	3.4183	-.02832	.56277
#2	.07132	1.5681	3.4111	-.02572	.56548

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				18.000	
Low Limit				-.02000	

Sample Name: 480-143525-A-29-C Acquired: 10/26/2018 17:57:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **6.2296**
Stddev .0086
%RSD .13838

#1 **6.2357**
#2 **6.2235**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1991.8	1456.6	47388.	3714.7
Stddev	3.6	7.2	41.	2.9
%RSD	.18302	.49487	.08631	.07695

#1	1989.2	1451.5	47417.	3716.7
#2	1994.4	1461.7	47359.	3712.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	69.708%	87.636%	99.251%	100.49%
Range				

Sample Name: 480-143525-A-30-C Acquired: 10/26/2018 18:01:45 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00128	119.04	.12239	.14591	.61098
Stddev	.00055	.33	.00344	.00057	.00129
%RSD	42.903	.27358	2.8122	.39154	.21116

#1	-.00090	118.81	.12482	.14631	.61190
#2	-.00167	119.28	.11995	.14550	.61007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00566	239.25	.00166	.3653	.10586
Stddev	.00003	.14	.00022	.0093	.00032
%RSD	.46007	.05915	13.343	2.536	.29847

#1	.00568	239.15	.00150	.3719	.10564
#2	.00565	239.35	.00181	.3588	.10608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16185	.23799	189.16	27.912	.23352
Stddev	.00085	.00022	.11	.037	.00023
%RSD	.52528	.09147	.05867	.13117	.09716

#1	.16125	.23783	189.08	27.938	.23368
#2	.16245	.23814	189.24	27.886	.23336

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-30-C Acquired: 10/26/2018 18:01:45 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	91.256	2.6776	.02014	1.4900	.28420
Stddev	.058	.0049	.00002	.0003	.00004
%RSD	.06309	.18353	.09649	.01788	.01352

#1	91.215	2.6741	.02015	1.4902	.28423
#2	91.297	2.6811	.02012	1.4898	.28418

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11622	4.355	-.01726	-.00296	10.437
Stddev	.00179	.003	.00148	.00020	.097
%RSD	1.5412	.0662	8.5620	6.6439	.92536

#1	.11749	4.352	-.01831	-.00282	10.506
#2	.11496	4.357	-.01622	-.00310	10.369

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04387	.41637	1.2965	-.00104	.22718
Stddev	.00166	.00016	.0003	.00039	.00048
%RSD	3.7788	.03768	.02211	36.984	.21234

#1	.04505	.41648	1.2967	-.00132	.22684
#2	.04270	.41626	1.2963	-.00077	.22752

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-A-30-C Acquired: 10/26/2018 18:01:45 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.55573**
Stddev .00013
%RSD .02303

#1 **.55564**
#2 **.55582**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2334.2	1622.8	49187.	3974.3
Stddev	4.1	3.6	29.	2.8
%RSD	.17737	.21906	.05795	.07170

#1	2331.3	1620.3	49207.	3976.4
#2	2337.1	1625.3	49166.	3972.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.693%	97.638%	103.02%	107.51%
Range				

Sample Name: 480-143525-B-31-B Acquired: 10/26/2018 18:05:37 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	136.69	.07703	.26069	1.1723
Stddev	.00054	.33	.00269	.00074	.0019
%RSD	197.97	.24024	3.4909	.28333	.15940

#1	-0.00066	136.45	.07893	.26016	1.1710
#2	.00011	136.92	.07512	.26121	1.1737

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01582	529.75	.00884	.4429	.05974
Stddev	.00009	2.25	.00010	.0039	.00009
%RSD	.54358	.42499	1.1149	.8820	.15239

#1	.01589	528.16	.00877	.4456	.05968
#2	.01576	531.35	.00891	.4401	.05981

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20262	.45405	324.44	14.551	.21648
Stddev	.00055	.00127	.41	.063	.00047
%RSD	.26935	.28025	.12634	.43467	.21626

#1	.20223	.45315	324.15	14.506	.21615
#2	.20301	.45495	324.73	14.595	.21681

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-31-B Acquired: 10/26/2018 18:05:37 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	72.378	8.6261	.02162	1.7746	.21492
Stddev	.065	.0216	.00001	.0058	.00082
%RSD	.08943	.25082	.05695	.32708	.38258

#1	72.332	8.6108	.02161	1.7705	.21434
#2	72.423	8.6414	.02163	1.7787	.21551

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0871	19.73	F -.02688	.00791	12.898
Stddev	.0005	.00	.00009	.00210	.029
%RSD	.04685	.0012	.32825	26.520	.22562

#1	1.0874	19.73	-.02694	.00939	12.877
#2	1.0867	19.73	-.02682	.00642	12.918

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			9.0000		
Low Limit			-.02000		

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10104	1.2338	3.0053	-.00413	.15299
Stddev	.00214	.0018	.0071	.00238	.00128
%RSD	2.1141	.14864	.23512	57.634	.83844

#1	.10255	1.2325	3.0003	-.00582	.15209
#2	.09953	1.2351	3.0103	-.00245	.15390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-31-B Acquired: 10/26/2018 18:05:37 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **2.4458**
 Stddev .0054
 %RSD .21899

#1 **2.4420**
 #2 **2.4496**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2184.2	1623.7	49899.	4127.9
Stddev	6.8	1.8	150.	9.6
%RSD	.31286	.11023	.30047	.23220

#1	2189.0	1622.4	50005.	4134.6
#2	2179.4	1624.9	49793.	4121.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.442%	97.691%	104.51%	111.67%
Range				

Sample Name: 480-143525-B-32-B Acquired: 10/26/2018 18:09:39 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00110	283.03	.00764	.71090	1.4706
Stddev	.00014	.91	.00271	.00294	.0044
%RSD	12.786	.32240	35.506	.41303	.29641

#1	-.00100	282.38	.00572	.71297	1.4675
#2	-.00120	283.67	.00956	.70882	1.4737

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05811	F 1354.8	.00037	.6382	.00708
Stddev	.00032	9.2	.00012	.0171	.00008
%RSD	.54950	.67992	32.106	2.676	1.1887

#1	.05789	1348.3	.00028	.6503	.00702
#2	.05834	1361.3	.00045	.6262	.00714

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01428	-.00018	18.759	9.9596	.40358
Stddev	.00011	.00021	.103	.0512	.00029
%RSD	.74645	121.04	.55096	.51377	.07160

#1	.01436	-.00003	18.686	9.9234	.40338
#2	.01420	-.00033	18.832	9.9958	.40379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-32-B Acquired: 10/26/2018 18:09:39 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.270	9.6372	.00197	4.3851	.00210
Stddev	.059	.0885	.00009	.0140	.00043
%RSD	.12413	.91817	4.7437	.31967	20.389

#1	47.229	9.5746	.00191	4.3752	.00240
#2	47.312	9.6998	.00204	4.3950	.00180

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.02302	80.70	-.00952	.05524	5.2370
Stddev	.00035	.24	.00023	.00205	.0115
%RSD	1.5146	.3013	2.3739	3.7196	.21915

#1	-.02278	80.87	-.00936	.05670	5.2451
#2	-.02327	80.53	-.00968	.05379	5.2289

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	110.00				
Low Limit	-.01000				

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03619	2.1824	6.5866	-.01191	.07108
Stddev	.00073	.0180	.0089	.00246	.00007
%RSD	2.0044	.82552	.13535	20.683	.09370

#1	.03671	2.1951	6.5803	-.01365	.07103
#2	.03568	2.1696	6.5929	-.01017	.07113

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-32-B Acquired: 10/26/2018 18:09:39 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00171**
 Stddev .00043
 %RSD 25.339

#1 **.00202**
 #2 **.00140**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1959.9	1940.3	57998.	5010.3
Stddev	1.1	3.7	96.	6.1
%RSD	.05735	.19312	.16574	.12188

#1	1959.1	1937.7	58066.	5006.0
#2	1960.7	1943.0	57930.	5014.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.594%	116.74%	121.47%	135.54%
Range				

Sample Name: 480-143525-B-33-B Acquired: 10/26/2018 18:13:43 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	21.321	.00741	.01618	.15843
Stddev	.00015	.153	.00017	.00041	.00035
%RSD	43.288	.71813	2.3577	2.5424	.22066

#1	-.00025	21.429	.00753	.01647	.15868
#2	-.00046	21.212	.00728	.01589	.15819

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00092	7.2512	.00044	.1160	.01187
Stddev	.00008	.0014	.00012	.0008	.00002
%RSD	8.8034	.01987	27.251	.6761	.17119

#1	.00087	7.2522	.00036	.1166	.01188
#2	.00098	7.2502	.00053	.1155	.01185

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02484	.02657	16.140	3.3063	.03304
Stddev	.00022	.00049	.044	.0118	.00027
%RSD	.87059	1.8543	.27099	.35579	.81891

#1	.02469	.02692	16.171	3.2980	.03285
#2	.02499	.02623	16.109	3.3147	.03323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-33-B Acquired: 10/26/2018 18:13:43 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.1773	.17848	.00314	.56929	.02680
Stddev	.0014	.00025	.00013	.00231	.00044
%RSD	.03345	.14017	4.0090	.40528	1.6383

#1	4.1763	.17866	.00305	.57092	.02649
#2	4.1783	.17831	.00323	.56766	.02711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01889	.6115	-.00196	-.00228	5.8924
Stddev	.00013	.0012	.00082	.00001	.0548
%RSD	.68637	.1990	41.868	.40809	.93003

#1	.01899	.6124	-.00254	-.00228	5.9312
#2	.01880	.6106	-.00138	-.00229	5.8537

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03591	.04943	1.1357	-.00079	.04445
Stddev	.00030	.00023	.0013	.00052	.00009
%RSD	.84688	.46517	.11521	65.383	.20476

#1	.03612	.04959	1.1367	-.00043	.04438
#2	.03569	.04927	1.1348	-.00116	.04451

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143525-B-33-B Acquired: 10/26/2018 18:13:43 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .08771
Stddev .00017
%RSD .19824

#1 .08784
#2 .08759

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2724.5	1626.6	48750.	3788.3
Stddev	7.8	3.5	83.	15.6
%RSD	.28800	.21266	.16964	.41190

#1	2718.9	1624.2	48692.	3777.3
#2	2730.0	1629.1	48809.	3799.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.352%	97.869%	102.10%	102.48%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 18:17:32 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49508	23.824	.49063	.48354	.49917	.46857	24.153	.50703
Stddev	.00208	.036	.00229	.00033	.00015	.00084	.057	.00030
%RSD	.42082	.15059	.46666	.06862	.02929	.17927	.23742	.05921
#1	.49655	23.850	.48902	.48330	.49907	.46798	24.112	.50682
#2	.49360	23.799	.49225	.48377	.49928	.46917	24.193	.50725

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	.48588	.49132	.49478	23.395	24.104	.47110	23.882
Stddev	.0142	.00066	.00022	.00075	.066	.084	.00142	.050
%RSD	3479.	.13627	.04429	.15079	.28338	.35029	.30248	.20764
#1	-.0105	.48542	.49147	.49531	23.348	24.044	.47009	23.917
#2	.0096	.48635	.49116	.49426	23.442	24.163	.47211	23.847

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49569	.50009	23.911	.47676	.48636	25.65	.50141	.49374
Stddev	.00044	.00019	.064	.00007	.00104	.02	.00094	.00044
%RSD	.08915	.03849	.26868	.01371	.21480	.0884	.18729	.08924
#1	.49600	.49995	23.865	.47681	.48562	25.66	.50075	.49405
#2	.49537	.50022	23.956	.47672	.48709	25.63	.50208	.49342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 18:17:32 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.644	.49817	.49866	.49453	.47437	.49019	.47752
Stddev	.196	.00044	.00192	.00203	.00048	.00040	.00008
%RSD	.79336	.08918	.38490	.41079	.10029	.08088	.01742

#1	24.506	.49848	.49731	.49596	.47470	.49047	.47746
#2	24.782	.49785	.50002	.49309	.47403	.48991	.47758

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2632.7	1531.8	45805.	3554.0
Stddev	1.1	1.1	178.	6.0
%RSD	.04354	.07169	.38885	.16933

#1	2631.9	1532.5	45679.	3558.2
#2	2633.5	1531.0	45931.	3549.7

Sample Name: CCB-4957862 Acquired: 10/26/2018 18:21:15 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	.01233	.00009	.00035	.00003	-.00002	.00709	-.00001
Stddev	.00018	.01957	.00073	.00001	.00000	.00006	.00116	.00014
%RSD	41.079	158.69	792.41	4.0901	15.219	391.03	16.295	1410.8
#1	-.00031	-.00151	-.00043	.00036	.00003	.00003	.00791	.00009
#2	-.00057	.02617	.00061	.00034	.00003	-.00006	.00627	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010	-.00012	.00030	-.00019	.00196	.09867	.00066	-.00024
Stddev	.0030	.00009	.00003	.00027	.00028	.03133	.00036	.00173
%RSD	284.4	72.332	9.6658	141.28	14.382	31.754	54.255	722.99
#1	.0032	-.00019	.00032	-.00000	.00176	.07651	.00041	-.00146
#2	-.0011	-.00006	.00028	-.00039	.00215	.12082	.00092	.00098

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00090	.25103	-.00011	-.00016	.0142	-.00033	-.00224
Stddev	.00000	.00009	.00097	.00007	.00080	.0011	.00131	.00186
%RSD	.32214	9.8706	.38725	61.802	503.38	7.875	396.21	83.004
#1	.00020	.00084	.25172	-.00016	-.00073	.0134	-.00126	-.00093
#2	.00020	.00096	.25035	-.00006	.00041	.0150	.00060	-.00355

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 18:21:15 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01285	.00016	.00001	.00016	-.00071	-.00003	.00049
Stddev	.00026	.00070	.00001	.00012	.00024	.00007	.00029
%RSD	1.9968	426.52	103.17	77.945	33.237	285.40	59.045

#1	.01266	-.00033	.00002	.00007	-.00054	.00003	.00069
#2	.01303	.00066	.00000	.00024	-.00088	-.00008	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2809.9	1576.2	47653.	3605.6
Stddev	2.4	.3	135.	3.7
%RSD	.08695	.01969	.28366	.10390

#1	2808.2	1575.9	47557.	3608.2
#2	2811.6	1576.4	47748.	3602.9

Sample Name: CCVL-4954076 Acquired: 10/26/2018 18:25:08 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00593	.18982	.01490	.02002	.00204	.00197	.49791	.00201
Stddev	.00073	.01236	.00074	.00021	.00000	.00000	.00237	.00004
%RSD	12.232	6.5110	4.9823	1.0473	.15181	.05437	.47591	2.2253
#1	.00644	.18108	.01438	.02017	.00204	.00197	.49623	.00204
#2	.00542	.19855	.01542	.01987	.00204	.00197	.49958	.00198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0105	.00386	.00370	.00938	.04881	.50654	.02789	.19720
Stddev	.0094	.00003	.00012	.00014	.00170	.00167	.00019	.00024
%RSD	88.84	.75617	3.2366	1.4487	3.4894	.32908	.69681	.12067
#1	.0039	.00389	.00378	.00929	.04760	.50772	.02803	.19737
#2	.0172	.00384	.00361	.00948	.05001	.50537	.02776	.19703

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00285	.00971	1.1051	.00942	.01011	.2182	.01754	.02350
Stddev	.00001	.00002	.0020	.00001	.00012	.0040	.00088	.00352
%RSD	.46246	.16470	.18345	.15695	1.1754	1.855	5.0275	14.958
#1	.00284	.00970	1.1066	.00941	.01019	.2153	.01816	.02102
#2	.00285	.00972	1.1037	.00943	.01002	.2210	.01691	.02599

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 18:25:08 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45434	.00984	.00492	.00463	.01819	.00477	.01083
Stddev	.01094	.00024	.00002	.00020	.00001	.00039	.00007
%RSD	2.4077	2.4329	.33245	4.3856	.07613	8.1099	.65464

#1	.44660	.00967	.00493	.00478	.01818	.00504	.01088
#2	.46207	.01000	.00491	.00449	.01820	.00450	.01078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.5	1575.3	47197.	3592.0
Stddev	2.1	.1	135.	.3
%RSD	.07652	.00776	.28660	.00747

#1	2791.0	1575.2	47102.	3592.1
#2	2788.0	1575.4	47293.	3591.8

Sample Name: MB 480-441183/1-A Acquired: 10/26/2018 18:28:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.04598	.00087	.00107	.00057
Stddev	.00014	.00086	.00045	.00007	.00003
%RSD	313.60	1.8759	52.300	6.7665	4.9587

#1	.00015	.04659	.00055	.00102	.00059
#2	-.00006	.04537	.00119	.00113	.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.02425	-.00007	-.0117	.00009
Stddev	.00003	.00262	.00002	.0104	.00008
%RSD	124.77	10.790	30.267	89.53	88.381

#1	.00005	.02611	-.00006	-.0190	.00003
#2	.00000	.02240	-.00009	-.0043	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00027	F .06015	.10162	.00113
Stddev	.00010	.00003	.00047	.02531	.00027
%RSD	14.316	11.289	.78664	24.907	23.671

#1	.00062	.00029	.05981	.11952	.00132
#2	.00075	.00025	.06048	.08373	.00094

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			.05000		
Low Limit			-.04000		

Sample Name: MB 480-441183/1-A Acquired: 10/26/2018 18:28:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00932	.00238	.00024	.19128	.00039
Stddev	.00029	.00000	.00008	.00214	.00006
%RSD	3.1639	.08878	34.625	1.1202	15.582

#1	.00953	.00238	.00029	.19279	.00035
#2	.00911	.00238	.00018	.18976	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00122	.0229	.00052	.00060	.35172
Stddev	.00108	.0001	.00052	.00383	.00664
%RSD	88.427	.3634	100.65	633.75	1.8875

#1	-.00046	.0228	.00015	.00331	.34703
#2	-.00198	.0229	.00089	-.00210	.35641

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .03588	.00009	.00159	-.00098	-.00002
Stddev	.00034	.00007	.00013	.00074	.00009
%RSD	.95287	70.093	8.2601	75.081	594.71

#1	.03564	.00005	.00150	-.00046	.00005
#2	.03612	.00014	.00168	-.00150	-.00008

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000				
Low Limit	-.01000				

Sample Name: MB 480-441183/1-A Acquired: 10/26/2018 18:28:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00651
Stddev .00005
%RSD .76795

#1 .00647
#2 .00654

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2773.9	1560.4	47435.	3628.4
Stddev	6.0	4.5	74.	4.7
%RSD	.21457	.28720	.15635	.12871

#1	2769.7	1557.2	47488.	3631.7
#2	2778.1	1563.5	47383.	3625.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.082%	93.882%	99.350%	98.156%
Range				

Sample Name: LCSSRM 480-441183/2- Acquired: 10/26/2018 18:32:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.31609	74.284	1.1976	.68980	1.9628
Stddev	.00053	.121	.0045	.00123	.0034
%RSD	.16629	.16355	.37498	.17795	.17127

#1	.31572	74.370	1.2008	.69066	1.9651
#2	.31646	74.198	1.1944	.68893	1.9604

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.74809	F 33.853	1.7612	.8614	.41756
Stddev	.00220	.057	.0018	.0213	.00000
%RSD	.29362	.16786	.10417	2.470	.00102

#1	.74654	33.813	1.7625	.8463	.41756
#2	.74965	33.893	1.7600	.8764	.41756

Check ?	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass
High Limit		60.700			
Low Limit		34.600			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.98707	1.2641	103.94	17.778	.05629
Stddev	.00002	.0008	.24	.017	.00021
%RSD	.00245	.06309	.22707	.09308	.37464

#1	.98705	1.2647	103.78	17.767	.05644
#2	.98709	1.2636	104.11	17.790	.05614

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Sample Name: LCSSRM 480-441183/2- Acquired: 10/26/2018 18:32:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.099	1.7764	.85757	1.9127	.77989
Stddev	.005	.0008	.00108	.0060	.00002
%RSD	.02828	.04677	.12623	.31525	.00257

#1	18.096	1.7758	.85833	1.9170	.77990
#2	18.103	1.7770	.85680	1.9084	.77987

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.91361	.7058	.38331	1.5194	6.7322
Stddev	.00003	.0069	.00000	.0019	.0392
%RSD	.00291	.9788	.00008	.12183	.58199

#1	.91359	.7009	.38331	1.5181	6.7599
#2	.91363	.7107	.38331	1.5207	6.7045

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.81136	.86305	3.7266	1.2982	.45436
Stddev	.00020	.00114	.0018	.0079	.00230
%RSD	.02496	.13203	.04734	.60653	.50721

#1	.81151	.86386	3.7278	1.2926	.45599
#2	.81122	.86224	3.7253	1.3038	.45273

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCSSRM 480-441183/2- Acquired: 10/26/2018 18:32:50 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.4518**
 Stddev .0057
 %RSD .39301

#1 1.4558
 #2 1.4478

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.1	1674.1	50874.	4010.6
Stddev	.4	.0	201.	14.3
%RSD	.01635	.00269	.39467	.35631

#1	2559.4	1674.0	50732.	4020.7
#2	2558.8	1674.1	51016.	4000.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.563%	100.72%	106.55%	108.49%
Range				

Sample Name: 480-143579-D-5-A Acquired: 10/26/2018 18:36:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00287	249.47	.01466	.42966	.81463
Stddev	.00006	.15	.00011	.00075	.00049
%RSD	2.1301	.05851	.78069	.17560	.05994

#1	-.00292	249.37	.01474	.43020	.81428
#2	-.00283	249.57	.01458	.42913	.81497

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01246	10.536	.00145	.3941	.15544
Stddev	.00001	.033	.00010	.0123	.00037
%RSD	.10766	.31130	6.5657	3.118	.24072

#1	.01245	10.559	.00138	.3855	.15570
#2	.01247	10.513	.00151	.4028	.15517

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.29902	.06921	282.36	57.204	.53049
Stddev	.00092	.00065	.04	.150	.00231
%RSD	.30819	.93476	.01349	.26176	.43601

#1	.29837	.06966	282.39	57.309	.53212
#2	.29968	.06875	282.33	57.098	.52885

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-D-5-A Acquired: 10/26/2018 18:36:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	97.775	4.7727	.00431	2.1059	.32462
Stddev	.273	.0028	.00000	.0001	.00069
%RSD	.27908	.05868	.09581	.00630	.21132

#1	97.582	4.7707	.00431	2.1059	.32511
#2	97.968	4.7747	.00431	2.1060	.32414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15328	.2917	-.01918	.00610	10.329
Stddev	.00219	.0020	.00274	.00753	.053
%RSD	1.4315	.6767	14.269	123.59	.51369

#1	.15173	.2931	-.01724	.00077	10.366
#2	.15483	.2903	-.02111	.01142	10.291

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04689	.08581	6.2335	-.00140	.40660
Stddev	.00185	.00000	.0146	.00042	.00113
%RSD	3.9498	.00059	.23354	30.112	.27672

#1	.04820	.08581	6.2232	-.00170	.40740
#2	.04558	.08581	6.2438	-.00110	.40580

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-D-5-A Acquired: 10/26/2018 18:36:29 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.62295**
 Stddev .00249
 %RSD .39965

#1 **.62119**
 #2 **.62471**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2398.7	1668.0	49940.	3979.7
Stddev	3.9	3.6	72.	8.3
%RSD	.16282	.21393	.14368	.20817

#1	2396.0	1665.5	49991.	3973.8
#2	2401.5	1670.6	49889.	3985.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.951%	100.36%	104.60%	107.66%
Range				

Sample Name: 480-143579-D-6-A Acquired: 10/26/2018 18:40:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00227	217.68	.02450	.32593	1.0708
Stddev	.00070	.09	.00034	.00113	.0016
%RSD	30.938	.04039	1.3788	.34632	.15210

#1	-.00277	217.62	.02474	.32513	1.0720
#2	-.00177	217.74	.02426	.32673	1.0697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01031	16.001	.00253	.3930	.12005
Stddev	.00014	.003	.00008	.0112	.00016
%RSD	1.3966	.01785	3.0600	2.844	.13506

#1	.01021	16.003	.00248	.4009	.12017
#2	.01041	15.999	.00259	.3851	.11994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24710	.21489	239.38	40.259	.36988
Stddev	.00001	.00037	.15	.067	.00080
%RSD	.00279	.17072	.06105	.16524	.21645

#1	.24711	.21515	239.27	40.306	.36931
#2	.24710	.21463	239.48	40.212	.37044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-D-6-A Acquired: 10/26/2018 18:40:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	64.815	7.7375	.00256	2.0598	.23750
Stddev	.099	.0252	.00019	.0070	.00001
%RSD	.15249	.32538	7.3437	.33792	.00299

#1	64.745	7.7197	.00269	2.0647	.23749
#2	64.885	7.7553	.00243	2.0548	.23750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.23815	1.343	-.01883	.00366	8.6361
Stddev	.00053	.001	.00164	.00635	.0073
%RSD	.22106	.0686	8.6947	173.58	.08455

#1	.23853	1.342	-.01999	-.00083	8.6413
#2	.23778	1.344	-.01768	.00814	8.6310

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04959	.10187	5.4860	-.00120	.36971
Stddev	.00045	.00005	.0028	.00151	.00022
%RSD	.91600	.04703	.05035	125.95	.05970

#1	.04927	.10183	5.4841	-.00013	.36987
#2	.04991	.10190	5.4880	-.00227	.36956

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-D-6-A Acquired: 10/26/2018 18:40:21 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.93253**
 Stddev .00435
 %RSD .46663

#1 **.92945**
 #2 **.93561**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2445.1	1623.7	48984.	3896.8
Stddev	8.0	5.1	90.	5.1
%RSD	.32664	.31115	.18452	.13083

#1	2439.5	1620.1	49048.	3893.2
#2	2450.7	1627.3	48920.	3900.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.574%	97.692%	102.59%	105.42%
Range				

Sample Name: 480-143579-B-7-A Acquired: 10/26/2018 18:44:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00207	107.39	.02842	.21256	.87451
Stddev	.00020	.04	.00323	.00078	.00122
%RSD	9.7475	.03634	11.357	.36591	.13953

#1	-.00221	107.36	.02614	.21201	.87365
#2	-.00193	107.42	.03070	.21311	.87537

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00671	33.345	.00132	.4898	.09386
Stddev	.00004	.096	.00017	.0004	.00016
%RSD	.58905	.28658	12.638	.0750	.17235

#1	.00674	33.277	.00143	.4895	.09398
#2	.00669	33.412	.00120	.4900	.09375

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17974	.22554	172.70	28.959	.27287
Stddev	.00027	.00086	.04	.112	.00013
%RSD	.14808	.38326	.02601	.38794	.04682

#1	.17993	.22615	172.67	28.879	.27278
#2	.17955	.22492	172.73	29.038	.27296

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-A Acquired: 10/26/2018 18:44:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.769	13.582	.00160	1.5705	.17540
Stddev	.109	.014	.00052	.0024	.00022
%RSD	.22731	.10595	32.713	.15120	.12412

#1	47.846	13.592	.00123	1.5722	.17524
#2	47.692	13.572	.00197	1.5688	.17555

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.14648	.5150	-.01527	.00177	5.6001
Stddev	.00001	.0115	.00134	.00238	.0132
%RSD	.00806	2.233	8.7675	134.27	.23627

#1	.14649	.5069	-.01432	.00009	5.6095
#2	.14647	.5232	-.01621	.00345	5.5908

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05101	.12456	4.4391	-.00141	.32956
Stddev	.00106	.00003	.0107	.00033	.00100
%RSD	2.0858	.02737	.24146	23.663	.30448

#1	.05176	.12458	4.4467	-.00165	.33027
#2	.05026	.12453	4.4315	-.00117	.32885

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-A Acquired: 10/26/2018 18:44:13 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.39062**
 Stddev .00352
 %RSD .90040

#1 **.39310**
 #2 **.38813**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2487.9	1686.8	51434.	4036.3
Stddev	1.5	2.6	41.	6.0
%RSD	.06150	.15241	.07996	.14899

#1	2489.0	1688.6	51405.	4040.5
#2	2486.8	1685.0	51463.	4032.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.070%	101.49%	107.72%	109.19%
Range				

Sample Name: 480-143579-B-7-Asd@5 Acquired: 10/26/2018 18:48:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	24.520	.00418	.04947	.20166
Stddev	.00008	.109	.00042	.00033	.00054
%RSD	17.848	.44499	9.9384	.66808	.26846

#1	-0.00051	24.443	.00389	.04924	.20128
#2	-0.00040	24.597	.00448	.04971	.20205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00156	7.7359	.00031	.1058	.01924
Stddev	.00002	.0050	.00006	.0016	.00034
%RSD	1.3610	.06423	20.778	1.556	1.7565

#1	.00158	7.7324	.00027	.1047	.01900
#2	.00155	7.7395	.00036	.1070	.01947

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04184	.04972	40.115	6.3739	.06002
Stddev	.00059	.00003	.115	.0687	.00024
%RSD	1.4179	.05523	.28593	1.0777	.39780

#1	.04142	.04970	40.034	6.3253	.06019
#2	.04226	.04974	40.197	6.4225	.05985

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-Asd@5 Acquired: 10/26/2018 18:48:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.150	3.3809	.00013	.45744	.03616
Stddev	.004	.0287	.00027	.00457	.00005
%RSD	.03276	.84774	212.23	.99863	.14928

#1	11.148	3.3606	-.00006	.45421	.03612
#2	11.153	3.4012	.00032	.46067	.03620

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03080	.1360	-.00507	.00065	1.3250
Stddev	.00064	.0002	.00093	.00044	.0106
%RSD	2.0796	.1824	18.389	67.477	.79934

#1	.03125	.1359	-.00441	.00097	1.3175
#2	.03034	.1362	-.00573	.00034	1.3325

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01116	.02854	1.0127	-.00107	.07594
Stddev	.00017	.00010	.0014	.00034	.00041
%RSD	1.5425	.33561	.14259	31.464	.53573

#1	.01104	.02847	1.0117	-.00083	.07565
#2	.01128	.02861	1.0137	-.00131	.07622

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-Asd@5 Acquired: 10/26/2018 18:48:06 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.09507**
 Stddev .00095
 %RSD .99554

#1 **.09574**
 #2 **.09440**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2695.0	1588.5	47832.	3641.6
Stddev	4.8	.2	93.	6.4
%RSD	.17659	.01421	.19436	.17691

#1	2698.4	1588.7	47897.	3646.2
#2	2691.7	1588.3	47766.	3637.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.321%	95.574%	100.18%	98.514%
Range				

Sample Name: 480-143579-B-7-Apds Acquired: 10/26/2018 18:51:58 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08380	121.27	.38058	.56340	1.1977
Stddev	.00086	.09	.00247	.00145	.0003
%RSD	1.0286	.07129	.64914	.25681	.02367

#1	.08441	121.21	.37883	.56443	1.1979
#2	.08319	121.33	.38232	.56238	1.1975

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35258	48.982	.36215	.4956	.48353
Stddev	.00074	.054	.00049	.0028	.00009
%RSD	.20958	.11050	.13531	.5717	.01876

#1	.35310	49.020	.36250	.4936	.48347
#2	.35206	48.944	.36181	.4976	.48360

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50905	.56496	181.95	45.467	.61020
Stddev	.00106	.00167	.24	.021	.00136
%RSD	.20814	.29542	.13279	.04555	.22312

#1	.50980	.56614	182.12	45.482	.61117
#2	.50830	.56378	181.78	45.452	.60924

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-Apds Acquired: 10/26/2018 18:51:58 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	62.839	13.399	.34619	18.592	.57110
Stddev	.133	.015	.00022	.014	.00035
%RSD	.21231	.10970	.06256	.07401	.06043

#1	62.933	13.410	.34635	18.601	.57086
#2	62.744	13.389	.34604	18.582	.57135

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.55690	.5041	.33817	.35740	5.8742
Stddev	.00283	.0029	.00187	.00108	.0283
%RSD	.50841	.5658	.55196	.30138	.48121

#1	.55490	.5021	.33949	.35664	5.8942
#2	.55890	.5061	.33685	.35816	5.8542

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.45474	.47034	4.6189	.37708	.66123
Stddev	.00083	.00029	.0009	.00315	.00368
%RSD	.18298	.06193	.01932	.83546	.55587

#1	.45415	.47054	4.6183	.37485	.66383
#2	.45533	.47013	4.6195	.37931	.65863

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-Apds Acquired: 10/26/2018 18:51:58 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.71063**
 Stddev .00451
 %RSD .63506

#1 **.71383**
 #2 **.70744**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2437.7	1662.9	50474.	3972.3
Stddev	1.1	3.2	211.	8.7
%RSD	.04538	.19240	.41894	.21842

#1	2436.9	1660.6	50325.	3978.5
#2	2438.5	1665.1	50624.	3966.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.315%	100.05%	105.71%	107.46%
Range				

Sample Name: 480-143579-B-7-B MS Acquired: 10/26/2018 18:55:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07861	157.37	.37546	.57518	1.3503
Stddev	.00028	.10	.00112	.00003	.0012
%RSD	.35282	.06642	.29838	.00595	.09110

#1	.07881	157.45	.37467	.57516	1.3512
#2	.07841	157.30	.37626	.57521	1.3494

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.32281	35.779	.35218	.4530	.54149
Stddev	.00003	.010	.00080	.0023	.00124
%RSD	.00976	.02854	.22803	.5047	.22944

#1	.32278	35.786	.35161	.4514	.54237
#2	.32283	35.771	.35274	.4546	.54061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.57087	.67953	280.84	51.432	.68249
Stddev	.00462	.00103	.11	.075	.00247
%RSD	.80930	.15195	.03895	.14531	.36261

#1	.57414	.67880	280.76	51.379	.68074
#2	.56760	.68026	280.92	51.485	.68424

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-B MS Acquired: 10/26/2018 18:55:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	73.879	3.0238	.31719	17.674	.61780
Stddev	.496	.0021	.00068	.013	.00101
%RSD	.67073	.06933	.21578	.07370	.16291

#1	74.229	3.0223	.31670	17.665	.61852
#2	73.528	3.0253	.31767	17.683	.61709

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.54645	17.55	.17979	.33181	13.038
Stddev	.00110	.02	.00310	.00371	.012
%RSD	.20081	.1051	1.7239	1.1181	.09522

#1	.54722	17.57	.18198	.32919	13.029
#2	.54567	17.54	.17760	.33444	13.047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.43702	.41039	8.5001	.35356	.98596
Stddev	.00132	.00004	.0009	.00417	.00374
%RSD	.30208	.00922	.01022	1.1806	.37970

#1	.43795	.41036	8.4995	.35061	.98860
#2	.43609	.41042	8.5007	.35651	.98331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-B MS Acquired: 10/26/2018 18:55:46 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.77488**
 Stddev .00910
 %RSD 1.1746

#1 **.78131**
 #2 **.76844**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2385.1	1708.6	52639.	4137.4
Stddev	1.4	2.1	103.	26.7
%RSD	.05926	.12437	.19634	.64527

#1	2384.1	1710.1	52566.	4118.5
#2	2386.1	1707.1	52712.	4156.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.475%	102.80%	110.25%	111.92%
Range				

Sample Name: 480-143579-B-7-C MSD Acquired: 10/26/2018 18:59:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08218	180.17	.37395	.69599	1.4999
Stddev	.00040	.27	.00075	.00199	.0007
%RSD	.48250	.15036	.20129	.28661	.04582

#1	.08190	179.98	.37448	.69741	1.5004
#2	.08246	180.36	.37342	.69458	1.4994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.33894	38.394	.36707	.5068	.49242
Stddev	.00089	.062	.00086	.0068	.00072
%RSD	.26391	.16268	.23423	1.340	.14714

#1	.33957	38.350	.36767	.5020	.49294
#2	.33831	38.438	.36646	.5116	.49191

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.55776	.63474	201.07	68.303	.71998
Stddev	.00145	.00099	.28	.210	.00211
%RSD	.26038	.15535	.13899	.30683	.29239

#1	.55673	.63543	201.27	68.451	.72147
#2	.55879	.63404	200.88	68.154	.71849

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-C MSD Acquired: 10/26/2018 18:59:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	72.815	4.3633	.33499	19.057	.58818
Stddev	.068	.0092	.00031	.047	.00083
%RSD	.09304	.21083	.09109	.24621	.14154

#1	72.863	4.3698	.33478	19.090	.58759
#2	72.767	4.3568	.33521	19.024	.58877

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.58770	18.64	.17805	.34558	15.753
Stddev	.00521	.05	.00182	.00170	.018
%RSD	.88728	.2769	1.0247	.49188	.11155

#1	.58401	18.68	.17934	.34438	15.765
#2	.59138	18.61	.17676	.34678	15.740

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.45129	.47886	6.0800	.36077	.77203
Stddev	.00128	.00046	.0006	.00077	.00330
%RSD	.28263	.09614	.00987	.21343	.42765

#1	.45219	.47919	6.0804	.36131	.76969
#2	.45038	.47854	6.0796	.36022	.77436

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143579-B-7-C MSD Acquired: 10/26/2018 18:59:42 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.79738**
 Stddev .00013
 %RSD .01616

#1 **.79729**
 #2 **.79747**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2400.4	1674.5	50822.	4040.6
Stddev	3.7	6.1	38.	1.0
%RSD	.15552	.36319	.07553	.02576

#1	2397.8	1670.2	50849.	4041.3
#2	2403.1	1678.8	50794.	4039.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.010%	100.75%	106.44%	109.31%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 19:03:32 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49367	23.636	.49003	.49068	.49503	.46420	24.096	.51563
Stddev	.00033	.071	.00537	.00167	.00173	.00077	.071	.00173
%RSD	.06765	.30116	1.0959	.34035	.35016	.16642	.29662	.33484
#1	.49391	23.687	.48623	.48950	.49380	.46474	24.147	.51441
#2	.49343	23.586	.49383	.49186	.49626	.46365	24.046	.51685

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	.48643	.48789	.49171	23.114	23.912	.46928	23.815
Stddev	.0077	.00001	.00065	.00006	.057	.031	.00054	.030
%RSD	600.0	.00206	.13355	.01160	.24831	.13128	.11479	.12610
#1	.0067	.48644	.48743	.49166	23.154	23.890	.46966	23.793
#2	-.0042	.48642	.48835	.49175	23.073	23.935	.46890	23.836

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49098	.50050	23.566	.47118	.48951	26.14	.50740	.49743
Stddev	.00051	.00144	.047	.00012	.00102	.05	.00115	.00227
%RSD	.10331	.28838	.19879	.02543	.20855	.2075	.22618	.45543
#1	.49062	.49948	23.599	.47127	.48879	26.10	.50821	.49904
#2	.49133	.50152	23.533	.47110	.49023	26.18	.50659	.49583

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 19:03:32 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.639	.50162	.49263	.49520	.46586	.48394	.47878
Stddev	.122	.00063	.00142	.00103	.00082	.00011	.00001
%RSD	.49657	.12626	.28815	.20780	.17602	.02325	.00116

#1	24.553	.50117	.49363	.49447	.46528	.48402	.47879
#2	24.726	.50206	.49162	.49592	.46644	.48386	.47878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2641.8	1515.8	46182.	3558.8
Stddev	2.0	4.6	263.	3.3
%RSD	.07469	.30386	.57011	.09144

#1	2643.2	1519.0	46368.	3556.5
#2	2640.4	1512.5	45996.	3561.1

Sample Name: CCB-4957862 Acquired: 10/26/2018 19:07:15 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.01010	-.00079	.00075	.00002	.00001	.00222	-.00004
Stddev	.00013	.02093	.00009	.00018	.00000	.00002	.00109	.00001
%RSD	124.96	207.18	11.796	23.930	17.291	169.30	49.105	27.644

#1	-.00019	-.00470	-.00072	.00088	.00002	-.00000	.00145	-.00004
#2	-.00001	.02490	-.00085	.00063	.00003	.00002	.00298	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0068	-.00019	.00001	.00006	.00190	.06960	-.00038	-.00070
Stddev	.0088	.00004	.00004	.00021	.00130	.01203	.00013	.00121
%RSD	128.8	19.271	327.98	344.21	68.657	17.290	34.040	174.03

#1	.0130	-.00016	-.00002	-.00009	.00098	.06109	-.00029	-.00155
#2	.0006	-.00021	.00004	.00021	.00282	.07811	-.00047	.00016

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00084	.17939	-.00019	-.00026	.0111	-.00029	.00016
Stddev	.00003	.00014	.00235	.00014	.00073	.0009	.00009	.00200
%RSD	15.103	16.381	1.3083	73.726	279.33	8.382	32.096	1250.2

#1	.00019	.00074	.17773	-.00029	-.00077	.0117	-.00023	-.00125
#2	.00015	.00093	.18105	-.00009	.00025	.0104	-.00036	.00157

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 19:07:15 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00340	.00050	.00004	.00038	-.00077	-.00010	.00092
Stddev	.00160	.00007	.00003	.00004	.00024	.00012	.00016
%RSD	47.255	14.702	89.362	10.497	31.430	121.34	17.676

#1	.00453	.00044	.00006	.00035	-.00060	-.00019	.00104
#2	.00226	.00055	.00001	.00040	-.00095	-.00001	.00081

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2821.0	1566.1	47820.	3608.8
Stddev	2.9	.1	63.	2.2
%RSD	.10360	.00656	.13214	.06177

#1	2818.9	1566.1	47775.	3610.4
#2	2823.1	1566.0	47864.	3607.2

Sample Name: CCVL-4954076 Acquired: 10/26/2018 19:11:09 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00587	.18329	.01526	.02049	.00207	.00191	.49700	.00204
Stddev	.00027	.00198	.00109	.00065	.00002	.00006	.00021	.00003
%RSD	4.6598	1.0822	7.1167	3.1619	.88704	2.9991	.04201	1.6092
#1	.00606	.18469	.01603	.02003	.00205	.00195	.49715	.00202
#2	.00568	.18189	.01450	.02095	.00208	.00187	.49685	.00207

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0008	.00373	.00383	.00903	.04919	.50622	.02787	.19759
Stddev	.0102	.00003	.00010	.00053	.00098	.00155	.00101	.00312
%RSD	1216.	.77908	2.6127	5.8212	1.9907	.30657	3.6394	1.5807
#1	-.0081	.00371	.00390	.00866	.04850	.50732	.02715	.19980
#2	.0064	.00375	.00376	.00940	.04988	.50513	.02858	.19538

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00280	.00986	1.0463	.00937	.01056	.2221	.01885	.02256
Stddev	.00002	.00001	.0023	.00039	.00017	.0002	.00001	.00023
%RSD	.67087	.08536	.21698	4.1850	1.5676	.1037	.07123	1.0104
#1	.00278	.00985	1.0480	.00965	.01045	.2219	.01884	.02272
#2	.00281	.00986	1.0447	.00909	.01068	.2222	.01886	.02240

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/26/2018 19:11:09 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44896	.01015	.00487	.00463	.01810	.00481	.01018
Stddev	.00179	.00106	.00002	.00016	.00002	.00004	.00098
%RSD	.39824	10.403	.43698	3.4675	.11420	.84243	9.6189

#1	.45022	.00941	.00488	.00451	.01812	.00478	.00949
#2	.44769	.01090	.00485	.00474	.01809	.00484	.01087

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2794.0	1556.6	47252.	3602.3
Stddev	1.3	3.5	233.	13.1
%RSD	.04659	.22632	.49377	.36257

#1	2793.1	1559.1	47417.	3611.5
#2	2794.9	1554.1	47087.	3593.0

Sample Name: 480-143588-B-2-A Acquired: 10/26/2018 19:15:00 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	94.539	.06935	.05194	1.1740
Stddev	.00023	.204	.00319	.00003	.0034
%RSD	34.965	.21612	4.6059	.06443	.29042

#1	-.00049	94.684	.07161	.05192	1.1764
#2	-.00081	94.395	.06710	.05196	1.1716

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00448	15.552	.00383	.3501	.06873
Stddev	.00003	.005	.00030	.0080	.00005
%RSD	.68409	.03420	7.8855	2.295	.07045

#1	.00450	15.555	.00361	.3444	.06870
#2	.00446	15.548	.00404	.3558	.06876

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10557	.10816	132.83	15.498	.18142
Stddev	.00039	.00007	.72	.014	.00055
%RSD	.36766	.06603	.54042	.08806	.30369

#1	.10530	.10811	133.33	15.508	.18181
#2	.10584	.10821	132.32	15.489	.18103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-2-A Acquired: 10/26/2018 19:15:00 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.346	4.1319	.00173	.44762	.15502
Stddev	.040	.0052	.00018	.00566	.00056
%RSD	.19635	.12596	10.390	1.2644	.36217

#1	20.318	4.1356	.00186	.45162	.15462
#2	20.374	4.1283	.00160	.44362	.15542

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.63447	1.950	-.00898	.00031	8.5361
Stddev	.00384	.001	.00230	.00284	.0033
%RSD	.60464	.0357	25.609	915.10	.03879

#1	.63176	1.951	-.00735	-.00170	8.5338
#2	.63718	1.950	-.01060	.00232	8.5385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04830	.10334	.53392	-.00101	.13675
Stddev	.00028	.00043	.00108	.00102	.00039
%RSD	.58490	.41447	.20236	100.62	.28200

#1	.04810	.10364	.53469	-.00173	.13648
#2	.04850	.10303	.53316	-.00029	.13703

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-2-A Acquired: 10/26/2018 19:15:00 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.63494**
 Stddev .00071
 %RSD .11116

#1 **.63544**
 #2 **.63444**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2573.3	1693.3	51514.	4055.8
Stddev	4.8	4.5	1.	19.5
%RSD	.18702	.26755	.00242	.48042

#1	2569.9	1690.1	51513.	4042.0
#2	2576.7	1696.5	51515.	4069.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.060%	101.88%	107.89%	109.72%
Range				

Sample Name: 480-143588-B-4-A Acquired: 10/26/2018 19:18:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	84.363	.12720	.04915	.88638
Stddev	.00013	.050	.00039	.00029	.00058
%RSD	20.369	.05929	.30434	.59338	.06542

#1	-.00055	84.398	.12693	.04894	.88679
#2	-.00074	84.328	.12748	.04935	.88597

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00387	12.790	.00425	.3148	.06113
Stddev	.00002	.046	.00011	.0045	.00001
%RSD	.48606	.36258	2.5262	1.430	.01256

#1	.00386	12.823	.00433	.3116	.06112
#2	.00388	12.757	.00418	.3180	.06113

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10368	.10118	121.94	12.893	.16186
Stddev	.00039	.00011	.23	.016	.00082
%RSD	.37582	.11164	.19042	.12727	.50864

#1	.10340	.10110	122.11	12.904	.16128
#2	.10395	.10126	121.78	12.881	.16245

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-4-A Acquired: 10/26/2018 19:18:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.094	3.3453	.00142	.74967	.13997
Stddev	.015	.0039	.00014	.00372	.00039
%RSD	.07634	.11650	9.8643	.49595	.28101

#1	19.084	3.3481	.00132	.75230	.14024
#2	19.105	3.3426	.00152	.74705	.13969

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.71178	2.230	-.00941	.00386	7.6798
Stddev	.00053	.008	.00034	.00145	.0315
%RSD	.07458	.3627	3.6251	37.682	.41051

#1	.71216	2.236	-.00965	.00489	7.7021
#2	.71140	2.225	-.00917	.00283	7.6576

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04883	.07169	.48249	-.00153	.12680
Stddev	.00129	.00026	.00004	.00237	.00004
%RSD	2.6478	.35919	.00770	155.05	.03292

#1	.04792	.07151	.48252	-.00320	.12683
#2	.04975	.07187	.48247	.00015	.12677

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-4-A Acquired: 10/26/2018 19:18:52 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.57408**
 Stddev .00095
 %RSD .16518

#1 **.57341**
 #2 **.57475**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2596.6	1686.1	51231.	3998.0
Stddev	2.8	3.1	94.	9.2
%RSD	.10847	.18222	.18330	.23081

#1	2594.6	1683.9	51165.	3991.4
#2	2598.6	1688.3	51297.	4004.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.876%	101.45%	107.30%	108.15%
Range				

Sample Name: 480-143588-A-6-A Acquired: 10/26/2018 19:22:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00110	82.695	.05972	.05004	.71620
Stddev	.00016	.101	.00086	.00040	.00246
%RSD	14.930	.12161	1.4462	.79289	.34303

#1	-.00099	82.624	.05911	.05032	.71794
#2	-.00122	82.766	.06033	.04976	.71446

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00375	13.018	.00172	.3235	.06392
Stddev	.00006	.004	.00000	.0097	.00005
%RSD	1.4977	.02938	.15759	3.000	.07846

#1	.00371	13.021	.00172	.3167	.06395
#2	.00379	13.016	.00172	.3304	.06388

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09257	.12672	125.48	11.887	.15359
Stddev	.00019	.00009	.36	.030	.00002
%RSD	.20815	.07235	.28478	.24885	.01202

#1	.09243	.12665	125.23	11.908	.15361
#2	.09270	.12678	125.73	11.866	.15358

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-A-6-A Acquired: 10/26/2018 19:22:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.369	3.5274	.00196	.42298	.14269
Stddev	.016	.0026	.00015	.00076	.00023
%RSD	.07816	.07233	7.5771	.17940	.16414

#1	20.358	3.5292	.00185	.42245	.14285
#2	20.380	3.5256	.00206	.42352	.14252

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19283	1.741	-.01026	-.00146	7.1594
Stddev	.00195	.004	.00126	.00046	.0086
%RSD	1.0097	.2375	12.268	31.798	.12064

#1	.19420	1.744	-.01115	-.00113	7.1655
#2	.19145	1.738	-.00937	-.00179	7.1533

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04147	.06041	.50101	-.00037	.12815
Stddev	.00005	.00018	.00067	.00078	.00042
%RSD	.13253	.29040	.13442	210.63	.32392

#1	.04151	.06053	.50149	-.00093	.12786
#2	.04143	.06028	.50054	.00018	.12844

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-A-6-A Acquired: 10/26/2018 19:22:44 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.45020**
 Stddev .00325
 %RSD .72135

#1 .44790
 #2 .45249

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2595.0	1688.9	51180.	4017.6
Stddev	7.1	4.9	42.	8.1
%RSD	.27416	.29113	.08115	.20185

#1	2590.0	1685.4	51150.	4011.8
#2	2600.1	1692.4	51209.	4023.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.822%	101.61%	107.19%	108.68%
Range				

Sample Name: 480-143588-A-7-A Acquired: 10/26/2018 19:26:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00158	86.088	.19386	.03955	.82865
Stddev	.00024	.323	.00170	.00017	.00162
%RSD	14.907	.37541	.87717	.42186	.19506

#1	-.00142	86.316	.19266	.03967	.82979
#2	-.00175	85.859	.19507	.03944	.82750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00405	11.289	.00196	.3900	.06834
Stddev	.00003	.032	.00013	.0130	.00003
%RSD	.69818	.28757	6.8501	3.346	.04943

#1	.00407	11.312	.00205	.3992	.06832
#2	.00403	11.266	.00186	.3808	.06837

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09544	.09593	130.16	12.375	.17189
Stddev	.00091	.00002	.60	.046	.00083
%RSD	.94951	.01918	.46384	.37244	.48525

#1	.09480	.09594	130.59	12.408	.17248
#2	.09608	.09592	129.73	12.343	.17130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-A-7-A Acquired: 10/26/2018 19:26:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.616	3.4617	.00063	.39352	.14711
Stddev	.058	.0059	.00014	.00826	.00008
%RSD	.28093	.17076	22.151	2.0991	.05510

#1	20.575	3.4575	.00073	.39936	.14706
#2	20.657	3.4658	.00053	.38768	.14717

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21903	.6600	-.01114	.00240	7.9951
Stddev	.00330	.0004	.00039	.00148	.0147
%RSD	1.5080	.0570	3.5385	61.870	.18387

#1	.21670	.6598	-.01142	.00345	7.9847
#2	.22137	.6603	-.01086	.00135	8.0054

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04057	.06659	.43955	-.00045	.12280
Stddev	.00177	.00004	.00345	.00025	.00117
%RSD	4.3740	.06419	.78409	56.770	.95478

#1	.03932	.06662	.43711	-.00027	.12197
#2	.04183	.06656	.44199	-.00063	.12363

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-A-7-A Acquired: 10/26/2018 19:26:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.42363**
 Stddev .00099
 %RSD .23445

#1 .42293
 #2 .42434

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2591.4	1696.9	51698.	4042.6
Stddev	3.7	5.7	35.	11.9
%RSD	.14132	.33627	.06683	.29321

#1	2588.8	1692.9	51673.	4034.3
#2	2594.0	1700.9	51722.	4051.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.694%	102.10%	108.28%	109.36%
Range				

Sample Name: 480-143588-B-8-A Acquired: 10/26/2018 19:30:32 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00151	83.770	.06782	.04910	.74400
Stddev	.00009	.006	.00010	.00011	.00021
%RSD	5.9976	.00669	.15241	.21430	.02782

#1	-.00158	83.774	.06775	.04918	.74386
#2	-.00145	83.766	.06790	.04903	.74415

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00377	13.487	.00240	.3318	.06306
Stddev	.00001	.013	.00004	.0167	.00013
%RSD	.22925	.09369	1.5092	5.024	.20505

#1	.00377	13.496	.00242	.3200	.06296
#2	.00376	13.478	.00237	.3435	.06315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09586	.13138	129.24	10.321	.15331
Stddev	.00007	.00019	.16	.033	.00039
%RSD	.07148	.14479	.12709	.32270	.25749

#1	.09581	.13151	129.12	10.298	.15303
#2	.09591	.13124	129.35	10.345	.15359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-8-A Acquired: 10/26/2018 19:30:32 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.876	3.4119	.00183	.44190	.14636
Stddev	.046	.0063	.00042	.00666	.00018
%RSD	.21844	.18448	23.149	1.5069	.12236

#1	20.844	3.4074	.00213	.44661	.14648
#2	20.908	3.4163	.00153	.43719	.14623

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.48378	1.536	-.01077	.00155	7.3002
Stddev	.00056	.001	.00270	.00446	.0183
%RSD	.11611	.0918	25.105	287.01	.25050

#1	.48338	1.535	-.01268	-.00160	7.2873
#2	.48417	1.537	-.00886	.00470	7.3132

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04209	.05949	.52139	-.00150	.12897
Stddev	.00004	.00008	.00080	.00146	.00029
%RSD	.10165	.13260	.15421	97.307	.22682

#1	.04212	.05954	.52082	-.00047	.12918
#2	.04206	.05943	.52196	-.00254	.12876

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-8-A Acquired: 10/26/2018 19:30:32 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.69421**
 Stddev .00123
 %RSD .17719

#1 **.69334**
 #2 **.69508**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2597.8	1690.0	51243.	3998.9
Stddev	3.8	3.5	9.	1.6
%RSD	.14455	.20796	.01697	.04067

#1	2595.2	1687.5	51249.	3997.8
#2	2600.5	1692.5	51237.	4000.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.918%	101.68%	107.32%	108.18%
Range				

Sample Name: 480-143588-B-9-A Acquired: 10/26/2018 19:34:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00087	89.822	.07954	.04286	.98342
Stddev	.00001	.145	.00136	.00036	.00003
%RSD	1.6731	.16188	1.7059	.83631	.00327

#1	-0.00088	89.719	.07858	.04312	.98344
#2	-0.00086	89.925	.08050	.04261	.98340

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00393	13.548	.00254	.3396	.06871
Stddev	.00001	.085	.00002	.0074	.00026
%RSD	.23998	.62513	.62826	2.176	.37130

#1	.00394	13.488	.00255	.3448	.06853
#2	.00393	13.608	.00253	.3344	.06889

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10122	.11006	131.94	11.055	.17078
Stddev	.00004	.00003	.21	.045	.00029
%RSD	.04203	.02889	.15761	.40506	.16947

#1	.10119	.11008	131.79	11.024	.17058
#2	.10125	.11003	132.09	11.087	.17099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-9-A Acquired: 10/26/2018 19:34:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.865	3.8056	.00106	.41107	.14501
Stddev	.013	.0102	.00004	.00139	.00027
%RSD	.06160	.26759	3.7183	.33853	.18842

#1	20.874	3.8128	.00103	.41205	.14481
#2	20.856	3.7984	.00109	.41008	.14520

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.41554	.8069	-.01099	.00309	7.4351
Stddev	.00001	.0003	.00050	.00342	.0075
%RSD	.00270	.0318	4.5680	110.59	.10074

#1	.41555	.8071	-.01135	.00552	7.4404
#2	.41554	.8067	-.01064	.00067	7.4298

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04083	.07432	.55014	-.00071	.12953
Stddev	.00052	.00000	.00028	.00042	.00099
%RSD	1.2700	.00636	.05009	58.949	.76601

#1	.04046	.07432	.55033	-.00101	.13023
#2	.04120	.07433	.54994	-.00042	.12882

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-9-A Acquired: 10/26/2018 19:34:25 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.59884**
 Stddev .00075
 %RSD .12581

#1 **.59937**
 #2 **.59831**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2595.0	1682.9	51035.	3974.3
Stddev	4.6	5.4	161.	20.8
%RSD	.17630	.32190	.31583	.52276

#1	2591.8	1679.1	50921.	3989.0
#2	2598.2	1686.8	51149.	3959.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.820%	101.26%	106.89%	107.51%
Range				

Sample Name: 480-143588-B-10-A Acquired: 10/26/2018 19:38:19 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	83.478	.53744	.04182	.87234
Stddev	.00026	.010	.00240	.00034	.00170
%RSD	28.979	.01197	.44580	.80923	.19457

#1	-.00073	83.485	.53914	.04159	.87354
#2	-.00110	83.471	.53575	.04206	.87114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00373	6.8471	.00287	.3381	.05879
Stddev	.00007	.0141	.00011	.0100	.00002
%RSD	1.7720	.20519	3.7076	2.961	.02676

#1	.00378	6.8570	.00294	.3452	.05881
#2	.00369	6.8372	.00279	.3311	.05878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09859	.08320	121.46	13.198	.15997
Stddev	.00034	.00010	.22	.010	.00020
%RSD	.34941	.12403	.17878	.07744	.12358

#1	.09884	.08312	121.30	13.205	.16011
#2	.09835	.08327	121.61	13.191	.15983

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-10-A Acquired: 10/26/2018 19:38:19 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.278	3.4899	.00198	.37899	.12576
Stddev	.077	.0017	.00015	.00071	.00064
%RSD	.41955	.04770	7.5563	.18837	.50681

#1	18.223	3.4910	.00209	.37949	.12621
#2	18.332	3.4887	.00188	.37848	.12531

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50710	2.018	-.00905	.00295	9.3304
Stddev	.00154	.011	.00223	.00146	.0542
%RSD	.30454	.5201	24.623	49.564	.58072

#1	.50819	2.011	-.00747	.00192	9.3687
#2	.50600	2.026	-.01063	.00398	9.2921

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04119	.05318	.46475	-.00248	.12290
Stddev	.00039	.00009	.00089	.00136	.00004
%RSD	.94033	.16700	.19216	54.936	.03448

#1	.04092	.05324	.46411	-.00344	.12293
#2	.04146	.05312	.46538	-.00152	.12287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-10-A Acquired: 10/26/2018 19:38:19 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.46702**
Stddev .00138
%RSD .29502

#1 **.46604**
#2 **.46799**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2614.5	1674.6	50767.	3964.7
Stddev	3.5	1.9	2.	3.4
%RSD	.13578	.11224	.00334	.08529

#1	2612.0	1675.9	50766.	3962.3
#2	2617.0	1673.3	50768.	3967.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.503%	100.76%	106.33%	107.25%
Range				

Sample Name: 480-143588-B-11-A Acquired: 10/26/2018 19:42:12 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00103	97.407	.15949	.04356	1.2778
Stddev	.00058	.206	.00289	.00009	.0033
%RSD	55.877	.21115	1.8126	.19624	.25627

#1	-.00062	97.552	.15745	.04362	1.2801
#2	-.00144	97.261	.16153	.04350	1.2755

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00438	9.1573	.00171	.3673	.07006
Stddev	.00002	.0182	.00001	.0142	.00014
%RSD	.56411	.19917	.81013	3.854	.19692

#1	.00436	9.1444	.00170	.3773	.07015
#2	.00440	9.1702	.00172	.3573	.06996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10564	.08886	134.87	14.433	.18545
Stddev	.00054	.00023	.16	.009	.00006
%RSD	.51558	.25392	.12185	.06254	.03290

#1	.10603	.08870	134.76	14.440	.18541
#2	.10526	.08902	134.99	14.427	.18549

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-11-A Acquired: 10/26/2018 19:42:12 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.111	4.7028	.00072	.40337	.15177
Stddev	.035	.0141	.00003	.00345	.00011
%RSD	.17226	.29986	4.7058	.85597	.07375

#1	20.135	4.7128	.00074	.40093	.15185
#2	20.086	4.6928	.00070	.40581	.15169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19107	1.147	-.00991	.00213	7.1067
Stddev	.00045	.009	.00005	.00151	.0258
%RSD	.23767	.7534	.49937	70.765	.36284

#1	.19074	1.141	-.00987	.00319	7.1250
#2	.19139	1.153	-.00994	.00106	7.0885

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03848	.07280	.44345	-.00111	.13482
Stddev	.00125	.00048	.00036	.00024	.00079
%RSD	3.2362	.65382	.08103	21.589	.58615

#1	.03936	.07313	.44371	-.00128	.13538
#2	.03760	.07246	.44320	-.00094	.13426

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-11-A Acquired: 10/26/2018 19:42:12 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.48726**
 Stddev .00271
 %RSD .55700

#1 **.48918**
 #2 **.48535**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2593.4	1705.3	51941.	4039.4
Stddev	2.5	.2	69.	3.9
%RSD	.09655	.01032	.13353	.09542

#1	2591.6	1705.2	51892.	4042.2
#2	2595.2	1705.5	51990.	4036.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.764%	102.60%	108.79%	109.27%
Range				

Sample Name: 480-143588-B-12-A Acquired: 10/26/2018 19:46:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	82.971	.41521	.04348	.94828
Stddev	.00011	.053	.00369	.00009	.00110
%RSD	16.221	.06397	.88840	.21280	.11634

#1	-0.00058	82.933	.41782	.04355	.94750
#2	-0.00073	83.008	.41260	.04341	.94906

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00368	8.5499	.00318	.3123	.06023
Stddev	.00005	.0164	.00009	.0077	.00024
%RSD	1.2921	.19138	2.7413	2.481	.39091

#1	.00364	8.5383	.00312	.3068	.06007
#2	.00371	8.5615	.00324	.3178	.06040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09877	.08648	118.64	12.163	.15821
Stddev	.00055	.00025	.42	.006	.00003
%RSD	.56111	.29377	.35417	.04944	.02077

#1	.09916	.08666	118.34	12.167	.15818
#2	.09837	.08630	118.93	12.158	.15823

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-12-A Acquired: 10/26/2018 19:46:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.950	3.6669	.00161	.38906	.12599
Stddev	.017	.0043	.00010	.00154	.00045
%RSD	.09627	.11713	6.2424	.39477	.35990

#1	17.962	3.6699	.00168	.38798	.12631
#2	17.938	3.6639	.00154	.39015	.12567

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47033	2.056	-.00538	.00328	9.2395
Stddev	.00150	.007	.00104	.00385	.0040
%RSD	.31805	.3636	19.403	117.39	.04342

#1	.47138	2.051	-.00465	.00600	9.2367
#2	.46927	2.061	-.00612	.00056	9.2424

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04431	.05951	.44526	-.00101	.12027
Stddev	.00080	.00019	.00263	.00062	.00033
%RSD	1.8094	.32504	.59074	61.834	.27590

#1	.04488	.05937	.44340	-.00145	.12051
#2	.04374	.05965	.44712	-.00057	.12004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-12-A Acquired: 10/26/2018 19:46:06 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.47258**
 Stddev .00037
 %RSD .07798

#1 **.47232**
 #2 **.47284**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2616.7	1662.5	50737.	3923.4
Stddev	1.5	.7	196.	.5
%RSD	.05908	.04282	.38557	.01259

#1	2615.7	1663.0	50598.	3923.8
#2	2617.8	1662.0	50875.	3923.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.581%	100.02%	106.26%	106.14%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 19:50:01 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49334	23.540	.49038	.49137	.49521	.46125	23.989	.51702
Stddev	.00209	.068	.00264	.00021	.00022	.00136	.108	.00032
%RSD	.42364	.28788	.53905	.04348	.04405	.29408	.44988	.06233
#1	.49482	23.492	.48851	.49152	.49506	.46029	23.912	.51725
#2	.49187	23.588	.49225	.49122	.49537	.46221	24.065	.51679

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076	.48563	.48551	.48929	22.972	23.734	.46638	23.737
Stddev	.0023	.00073	.00160	.00070	.107	.038	.00068	.013
%RSD	30.61	.15051	.32874	.14404	.46454	.15846	.14600	.05555
#1	.0059	.48511	.48664	.48979	22.896	23.708	.46590	23.746
#2	.0092	.48615	.48438	.48880	23.047	23.761	.46686	23.727

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48960	.49910	23.395	.46905	.49087	26.39	.50735	.49506
Stddev	.00080	.00040	.097	.00084	.00160	.02	.00000	.00448
%RSD	.16313	.07976	.41297	.17885	.32658	.0777	.00035	.90499
#1	.49017	.49938	23.326	.46846	.48973	26.37	.50735	.49822
#2	.48904	.49882	23.463	.46964	.49200	26.40	.50735	.49189

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 19:50:01 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.281	.49914	.48870	.48442	.46261	.48213	.47947
Stddev	.214	.00103	.00266	.00027	.00048	.00251	.00223
%RSD	.88133	.20555	.54433	.05613	.10405	.52097	.46415
#1	24.129	.49986	.48682	.48423	.46227	.48391	.48104
#2	24.432	.49841	.49058	.48461	.46295	.48036	.47789

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2653.7	1514.8	46340.	3580.2
Stddev	2.8	1.6	22.	15.8
%RSD	.10536	.10505	.04677	.44024
#1	2655.6	1515.9	46324.	3591.4
#2	2651.7	1513.6	46355.	3569.1

Sample Name: CCB-4957862 Acquired: 10/26/2018 19:53:45 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00820	.00123	.00018	.00001	-.00001	.00204	.00002
Stddev	.00039	.00563	.00053	.00016	.00001	.00006	.00007	.00007
%RSD	962.51	68.669	42.956	87.561	85.705	546.26	3.2917	319.58

#1	-.00023	-.01218	.00086	.00029	.00001	.00003	.00199	.00007
#2	.00031	-.00422	.00161	.00007	.00002	-.00006	.00209	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032	-.00008	.00012	-.00003	.00241	.05794	-.00001	-.00288
Stddev	.0055	.00001	.00019	.00003	.00019	.05497	.00023	.00043
%RSD	170.7	9.9387	162.62	100.05	7.9034	94.877	1586.2	14.773

#1	.0071	-.00008	.00025	-.00001	.00228	.09681	.00015	-.00318
#2	-.0007	-.00009	-.00002	-.00005	.00255	.01907	-.00018	-.00258

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00107	.17446	-.00011	-.00044	.0059	-.00098	.00007
Stddev	.00001	.00003	.00390	.00026	.00122	.0006	.00063	.00087
%RSD	5.6127	2.4726	2.2359	229.23	279.42	10.46	64.408	1257.1

#1	.00018	.00109	.17170	.00007	.00043	.0063	-.00143	.00068
#2	.00017	.00106	.17722	-.00029	-.00130	.0055	-.00053	-.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 19:53:45 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00987	-.00024	.00003	.00013	-.00038	-.00014	.00053
Stddev	.01142	.00004	.00000	.00003	.00050	.00025	.00070
%RSD	115.79	17.370	8.4553	24.476	129.68	172.50	130.95

#1	.00179	-.00021	.00003	.00011	-.00003	.00003	.00004
#2	.01794	-.00027	.00002	.00016	-.00073	-.00032	.00103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2828.3	1562.5	48069.	3616.5
Stddev	2.7	2.1	111.	20.4
%RSD	.09472	.13685	.23152	.56533

#1	2826.4	1561.0	48147.	3630.9
#2	2830.1	1564.0	47990.	3602.0

Sample Name: CCVL-4954076 Acquired: 10/26/2018 19:57:38 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00566	.19558	.01662	.02001	.00203	.00195	.49305	.00206
Stddev	.00032	.01624	.00136	.00032	.00000	.00001	.00477	.00004
%RSD	5.7334	8.3045	8.1744	1.6200	.00468	.74927	.96669	1.8881
#1	.00543	.18409	.01758	.01978	.00203	.00196	.48968	.00209
#2	.00589	.20706	.01566	.02024	.00203	.00194	.49642	.00204

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0083	.00372	.00392	.00937	.04716	.50081	.02832	.19921
Stddev	.0064	.00009	.00005	.00024	.00043	.01607	.00048	.00239
%RSD	77.14	2.4170	1.2212	2.5861	.91387	3.2078	1.7113	1.1984
#1	-.0038	.00378	.00388	.00920	.04746	.48945	.02866	.20090
#2	-.0127	.00365	.00395	.00954	.04685	.51217	.02798	.19753

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00284	.00982	1.0319	.00951	.00971	.2225	.01783	.02494
Stddev	.00002	.00023	.0020	.00024	.00094	.0040	.00026	.00007
%RSD	.59289	2.3223	.19433	2.5724	9.6621	1.778	1.4801	.28620
#1	.00285	.00999	1.0305	.00968	.00904	.2197	.01801	.02499
#2	.00283	.00966	1.0333	.00933	.01037	.2253	.01764	.02489

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 19:57:38 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44869	.00969	.00480	.00456	.01746	.00462	.01099
Stddev	.01519	.00055	.00004	.00034	.00018	.00003	.00055
%RSD	3.3845	5.7105	.74772	7.5066	1.0366	.66373	5.0041

#1	.43795	.00930	.00482	.00480	.01759	.00465	.01138
#2	.45943	.01008	.00477	.00432	.01733	.00460	.01061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2799.0	1551.5	47630.	3572.1
Stddev	1.9	.0	360.	8.8
%RSD	.06626	.00273	.75603	.24726

#1	2800.4	1551.5	47375.	3578.4
#2	2797.7	1551.5	47884.	3565.9

Sample Name: 480-143588-B-13-A Acquired: 10/26/2018 20:01:30 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00109	105.93	.08717	.04959	1.4975
Stddev	.00008	.30	.00119	.00021	.0004
%RSD	7.7500	.28778	1.3685	.41745	.02581

#1	-.00115	105.72	.08633	.04945	1.4978
#2	-.00103	106.15	.08802	.04974	1.4972

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00481	11.979	.00174	.3776	.07450
Stddev	.00004	.000	.00002	.0129	.00011
%RSD	.91861	.00114	1.1951	3.423	.15142

#1	.00484	11.979	.00176	.3868	.07442
#2	.00478	11.979	.00173	.3685	.07458

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11313	.10028	143.13	14.853	.20020
Stddev	.00036	.00004	.17	.031	.00073
%RSD	.31381	.04342	.11552	.20566	.36529

#1	.11338	.10031	143.25	14.831	.20072
#2	.11288	.10024	143.01	14.875	.19968

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-13-A Acquired: 10/26/2018 20:01:30 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	21.365	5.5233	.00056	.42875	.16723
Stddev	.055	.0131	.00009	.00223	.00007
%RSD	.25598	.23765	15.732	.52090	.04028

#1	21.327	5.5325	.00050	.42717	.16719
#2	21.404	5.5140	.00062	.43033	.16728

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15213	1.238	-.01300	.00280	9.1725
Stddev	.00071	.002	.00335	.00400	.0404
%RSD	.46982	.1670	25.784	142.88	.44053

#1	.15162	1.239	-.01063	.00563	9.2011
#2	.15263	1.236	-.01537	-.00003	9.1439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04021	.08566	.45912	-.00135	.14527
Stddev	.00068	.00001	.00224	.00037	.00002
%RSD	1.7032	.00963	.48845	27.690	.01562

#1	.03972	.08565	.46070	-.00162	.14525
#2	.04069	.08566	.45753	-.00109	.14529

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-13-A Acquired: 10/26/2018 20:01:30 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.52238**
 Stddev .00249
 %RSD .47583

#1 **.52063**
 #2 **.52414**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2571.7	1694.3	52161.	4115.8
Stddev	5.0	6.8	116.	2.4
%RSD	.19439	.39872	.22285	.05794

#1	2568.1	1689.5	52079.	4114.1
#2	2575.2	1699.1	52243.	4117.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.003%	101.94%	109.25%	111.34%
Range				

Sample Name: 480-143588-B-14-A Acquired: 10/26/2018 20:05:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00103	90.702	.08218	.04603	1.2051
Stddev	.00026	.027	.00298	.00037	.0019
%RSD	24.785	.02958	3.6236	.79539	.15851

#1	-.00085	90.683	.08008	.04577	1.2064
#2	-.00121	90.721	.08429	.04628	1.2037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00434	15.196	.00795	.3033	.06896
Stddev	.00001	.000	.00017	.0038	.00006
%RSD	.29967	.00235	2.2005	1.263	.08385

#1	.00433	15.197	.00782	.3006	.06900
#2	.00435	15.196	.00807	.3061	.06892

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10484	.12530	126.66	11.124	.17437
Stddev	.00069	.00009	.35	.032	.00075
%RSD	.66040	.06931	.27863	.28590	.42907

#1	.10435	.12536	126.91	11.146	.17490
#2	.10533	.12524	126.41	11.101	.17384

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-14-A Acquired: 10/26/2018 20:05:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.906	4.8153	.00169	.44042	.14844
Stddev	.050	.0120	.00005	.00010	.00009
%RSD	.25250	.25010	3.1755	.02316	.05757

#1	19.870	4.8238	.00173	.44034	.14850
#2	19.941	4.8068	.00165	.44049	.14838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3567	1.906	-.00917	.00468	8.4325
Stddev	.0015	.002	.00028	.00642	.0127
%RSD	.11061	.0956	3.0250	137.17	.15070

#1	1.3577	1.904	-.00937	.00014	8.4415
#2	1.3556	1.907	-.00898	.00921	8.4235

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04854	.07598	.47487	-.00022	.13238
Stddev	.00121	.00009	.00024	.00085	.00038
%RSD	2.5028	.11514	.04967	384.30	.28542

#1	.04768	.07592	.47470	-.00083	.13211
#2	.04940	.07604	.47503	.00038	.13264

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143588-B-14-A Acquired: 10/26/2018 20:05:23 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.5308**
 Stddev .0058
 %RSD .37774

#1 1.5267
 #2 1.5349

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2599.1	1669.8	51846.	4016.6
Stddev	3.0	.0	20.	2.5
%RSD	.11483	.00010	.03873	.06245

#1	2597.0	1669.8	51860.	4014.8
#2	2601.2	1669.8	51832.	4018.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.964%	100.47%	108.59%	108.66%
Range				

Sample Name: blank Acquired: 10/26/2018 20:09:15 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.01258	-.00090	-.00016	.00005
Stddev	.00046	.00519	.00082	.00002	.00000
%RSD	567.26	41.211	91.138	10.990	1.0669

#1	-.00024	.01625	-.00148	-.00015	.00005
#2	.00040	.00892	-.00032	-.00017	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00022	.00005	.0032	-.00013
Stddev	.00001	.00038	.00003	.0109	.00007
%RSD	13.872	173.23	65.926	338.2	58.649

#1	.00005	-.00048	.00007	-.0045	-.00007
#2	.00006	.00005	.00003	.0110	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00008	.00498	.03381	.00085
Stddev	.00005	.00002	.00236	.00580	.00061
%RSD	251.67	20.747	47.499	17.170	71.749

#1	.00005	.00009	.00665	.02970	.00128
#2	-.00002	.00007	.00330	.03791	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 20:09:15 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.00017	-.00012	.14767	-.00012
Stddev	.00108	.00002	.00005	.00278	.00016
%RSD	151.50	9.5990	38.733	1.8852	131.27

#1	.00005	.00018	-.00016	.14964	-.00001
#2	-.00148	.00016	-.00009	.14570	-.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.0100	-.00080	-.00003	-.00612
Stddev	.00082	.0002	.00053	.00108	.00309
%RSD	502.46	2.405	66.119	3575.2	50.471

#1	-.00042	.0098	-.00117	-.00079	-.00393
#2	.00074	.0102	-.00043	.00073	-.00830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.00000	.00027	-.00125	.00007
Stddev	.00020	.00001	.00015	.00055	.00030
%RSD	47.419	853.68	53.898	44.369	415.47

#1	.00057	-.00001	.00017	-.00164	-.00014
#2	.00028	.00001	.00038	-.00086	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/26/2018 20:09:15 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00011**
 Stddev .00014
 %RSD 128.27

#1 **.00001**
 #2 **.00021**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2820.5	1549.3	48220.	3587.2
Stddev	3.2	2.0	104.	4.5
%RSD	.11432	.12668	.21470	.12495

#1	2818.2	1548.0	48146.	3590.3
#2	2822.7	1550.7	48293.	3584.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.711%	93.218%	100.99%	97.040%
Range				

Sample Name: MB 480-440321/1-A Acquired: 10/26/2018 20:13:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00692	-.00001	.00030	.00002
Stddev	.00004	.00832	.00280	.00021	.00001
%RSD	19.632	120.24	21127.	69.693	50.322

#1	-.00026	.00104	.00197	.00045	.00002
#2	-.00020	.01280	-.00199	.00015	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00797	-.00003	.0055	-.00006
Stddev	.00003	.00039	.00003	.0128	.00017
%RSD	992.12	4.9255	106.33	231.3	292.11

#1	.00002	.00769	-.00001	-.0035	.00006
#2	-.00002	.00825	-.00006	.0145	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00023	.00300	.03470	.00104
Stddev	.00003	.00026	.00014	.00441	.00036
%RSD	39.571	113.89	4.7946	12.713	34.543

#1	-.00005	.00042	.00310	.03782	.00079
#2	-.00010	.00005	.00290	.03158	.00130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440321/1-A Acquired: 10/26/2018 20:13:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00018	-.00008	.12594	.00002
Stddev	.00292	.00003	.00005	.00470	.00005
%RSD	1667.2	18.161	61.784	3.7296	283.83

#1	-.00189	.00020	-.00005	.12927	-.00002
#2	.00224	.00016	-.00012	.12262	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.0165	-.00140	-.00221	-.02962
Stddev	.00011	.0018	.00034	.00032	.00147
%RSD	13.812	11.24	24.016	14.604	4.9781

#1	.00086	.0178	-.00164	-.00198	-.03067
#2	.00070	.0151	-.00116	-.00244	-.02858

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00005	.00015	-.00050	-.00004
Stddev	.00125	.00003	.00054	.00166	.00006
%RSD	300.31	48.859	349.06	332.70	163.29

#1	.00130	.00003	.00053	-.00168	-.00008
#2	-.00047	.00007	-.00023	.00068	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440321/1-A Acquired: 10/26/2018 20:13:06 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00126**
Stddev .00057
%RSD 45.346

#1 **.00167**
#2 **.00086**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.1	1537.0	47839.	3643.4
Stddev	.4	4.8	105.	15.1
%RSD	.01289	.31221	.21931	.41352

#1	2794.9	1540.4	47913.	3632.7
#2	2795.4	1533.6	47765.	3654.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.823%	92.477%	100.19%	98.560%
Range				

Sample Name: LCS 480-440321/2-A Acquired: 10/26/2018 20:16:58 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04804	9.3895	.20021	.20658	.19792
Stddev	.00001	.0345	.00242	.00045	.00059
%RSD	.02696	.36759	1.2103	.21646	.30056

#1	.04805	9.3651	.19850	.20689	.19750
#2	.04803	9.4139	.20193	.20626	.19834

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18978	9.5108	.21323	.0120	.19047
Stddev	.00059	.0136	.00000	.0084	.00042
%RSD	.30897	.14281	.00065	70.03	.21958

#1	.18936	9.5012	.21323	.0179	.19017
#2	.19019	9.5204	.21323	.0060	.19077

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19240	.19007	9.1568	9.2190	.18210
Stddev	.00062	.00024	.0430	.0297	.00061
%RSD	.32421	.12699	.46944	.32193	.33747

#1	.19196	.18990	9.1264	9.1980	.18166
#2	.19284	.19024	9.1872	9.2400	.18253

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440321/2-A Acquired: 10/26/2018 20:16:58 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.6196	.18940	.19606	9.1009	.19102
Stddev	.0050	.00047	.00038	.0519	.00009
%RSD	.05186	.25027	.19136	.56971	.04819

#1	9.6232	.18973	.19633	9.0643	.19108
#2	9.6161	.18906	.19580	9.1376	.19095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19578	10.68	.20275	.20152	9.3842
Stddev	.00178	.02	.00142	.00266	.0279
%RSD	.91035	.1800	.70010	1.3209	.29785

#1	.19704	10.69	.20376	.20340	9.3644
#2	.19452	10.67	.20175	.19964	9.4039

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19857	.19010	.18863	.18701	.18861
Stddev	.00063	.00110	.00017	.00248	.00017
%RSD	.31601	.57615	.09004	1.3272	.09034

#1	.19901	.18933	.18875	.18876	.18849
#2	.19813	.19088	.18851	.18525	.18873

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440321/2-A Acquired: 10/26/2018 20:16:58 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20037**
 Stddev .00104
 %RSD .52149

#1 **.20111**
 #2 **.19963**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2710.0	1512.3	46820.	3605.4
Stddev	.3	1.1	76.	1.7
%RSD	.01186	.07568	.16168	.04701

#1	2709.8	1511.5	46766.	3604.2
#2	2710.2	1513.1	46873.	3606.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.844%	90.990%	98.060%	97.534%
Range				

Sample Name: 480-143538-D-19-A Acquired: 10/26/2018 20:20:37 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.11921	-.00134	.16886	.12112
Stddev	.00001	.01522	.00191	.00015	.00013
%RSD	6.6249	12.766	142.35	.09162	.10671

#1	-.00011	.10845	-.00269	.16897	.12103
#2	-.00012	.12997	.00001	.16875	.12121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	207.06	.00010	.0156	-.00020
Stddev	.00001	.55	.00000	.0027	.00005
%RSD	12.903	.26351	4.1100	17.52	25.555

#1	.00010	206.68	.00009	.0176	-.00023
#2	.00009	207.45	.00010	.0137	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.00127	.16197	1.6473	.02633
Stddev	.00033	.00033	.00153	.0158	.00016
%RSD	68.695	25.609	.94185	.96183	.60010

#1	.00071	.00150	.16305	1.6585	.02644
#2	.00025	.00104	.16089	1.6361	.02622

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143538-D-19-A Acquired: 10/26/2018 20:20:37 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	45.939	.01575	.00065	142.14	.00116
Stddev	.054	.00003	.00027	.77	.00041
%RSD	.11699	.16255	41.453	.54400	35.307

#1	45.901	.01573	.00085	142.69	.00145
#2	45.977	.01577	.00046	141.60	.00087

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00100	37.52	-.00184	-.00930	9.1128
Stddev	.00008	.04	.00241	.00252	.0045
%RSD	7.9036	.1117	131.19	27.091	.04893

#1	-.00105	37.49	-.00354	-.00751	9.1097
#2	-.00094	37.55	-.00013	-.01108	9.1160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.24700	.00070	.00049	.00017
Stddev	.00044	.00062	.00067	.00109	.00022
%RSD	1373.8	.25188	95.659	223.85	133.71

#1	.00028	.24744	.00117	-.00029	.00001
#2	-.00034	.24656	.00023	.00126	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143538-D-19-A Acquired: 10/26/2018 20:20:37 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00140**
 Stddev .00040
 %RSD 28.158

#1 **.00168**
 #2 **.00113**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2427.8	1414.7	43771.	3449.9
Stddev	2.2	.2	170.	1.0
%RSD	.08904	.01266	.38737	.02765

#1	2426.3	1414.5	43891.	3450.6
#2	2429.4	1414.8	43652.	3449.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.970%	85.115%	91.676%	93.328%
Range				

Sample Name: 480-143540-D-1-A Acquired: 10/26/2018 20:24:28 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.04547	-.00372	2.8670	.01976
Stddev	.00020	.00678	.00163	.0027	.00001
%RSD	43.298	14.915	43.695	.09441	.06215

#1	-.00033	.04068	-.00257	2.8651	.01976
#2	-.00061	.05027	-.00487	2.8689	.01975

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	473.58	.00031	.0120	.00010
Stddev	.00001	.03	.00009	.0127	.00002
%RSD	25.944	.00659	29.656	105.6	24.309

#1	.00002	473.60	.00038	.0030	.00011
#2	.00003	473.55	.00025	.0210	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00108	-.00028	.19194	15.228	.08314
Stddev	.00008	.00020	.00023	.006	.00028
%RSD	7.4969	71.334	.11831	.03910	.33813

#1	.00102	-.00014	.19178	15.223	.08334
#2	.00113	-.00042	.19210	15.232	.08294

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-1-A Acquired: 10/26/2018 20:24:28 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	62.678	.03958	.00165	102.68	.00120
Stddev	.144	.00003	.00038	.40	.00026
%RSD	.22959	.06807	22.849	.38570	21.432

#1	62.577	.03960	.00138	102.96	.00138
#2	62.780	.03956	.00192	102.40	.00102

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00227	F 510.4	-.00358	-.00469	6.1270
Stddev	.00111	.9	.00223	.00190	.0381
%RSD	48.754	.1820	62.337	40.442	.62129

#1	-.00149	509.8	-.00516	-.00335	6.1539
#2	-.00305	511.1	-.00200	-.00603	6.1001

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	F 9.1093	-.00050	.00027	-.00034
Stddev	.00140	.0357	.00026	.00007	.00009
%RSD	3928.8	.39207	51.426	26.630	25.385

#1	.00102	9.0841	-.00068	.00032	-.00040
#2	-.00095	9.1346	-.00032	.00022	-.00028

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143540-D-1-A Acquired: 10/26/2018 20:24:28 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00338**
 Stddev .00042
 %RSD 12.327

#1 **.00367**
 #2 **.00308**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2336.1	1365.4	42929.	3413.4
Stddev	1.4	.8	48.	1.1
%RSD	.06199	.05679	.11082	.03271

#1	2335.0	1366.0	42963.	3412.6
#2	2337.1	1364.9	42896.	3414.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.757%	82.151%	89.912%	92.339%
Range				

Sample Name: 480-143540-D-2-A Acquired: 10/26/2018 20:28:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.05466	-.00069	1.1401	.02548
Stddev	.00025	.02038	.00055	.0022	.00005
%RSD	45.366	37.278	79.758	.18956	.19305

#1	-.00074	.04025	-.00109	1.1386	.02552
#2	-.00038	.06907	-.00030	1.1417	.02545

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	610.78	.00039	.0246	-.00046
Stddev	.00001	1.27	.00000	.0096	.00005
%RSD	16.328	.20751	.63994	38.92	11.905

#1	.00006	611.68	.00038	.0314	-.00042
#2	.00007	609.89	.00039	.0178	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	-.00078	.38412	6.8598	.03822
Stddev	.00015	.00011	.00618	.0131	.00097
%RSD	31.114	14.563	1.6100	.19050	2.5430

#1	.00060	-.00070	.38849	6.8506	.03754
#2	.00039	-.00086	.37975	6.8691	.03891

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-2-A Acquired: 10/26/2018 20:28:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	48.897	.03308	.00097	46.634	-.00043
Stddev	.085	.00002	.00004	.170	.00013
%RSD	.17398	.06887	3.9455	.36482	28.861

#1	48.957	.03310	.00094	46.754	-.00035
#2	48.837	.03307	.00100	46.514	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00298	F 545.6	-.00551	-.01062	8.1257
Stddev	.00080	1.4	.00087	.00130	.0037
%RSD	26.939	.2521	15.716	12.224	.04595

#1	-.00241	544.6	-.00612	-.01154	8.1231
#2	-.00355	546.6	-.00490	-.00970	8.1284

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00083	F 14.707	-.00064	-.00021	-.00038
Stddev	.00113	.086	.00049	.00009	.00025
%RSD	137.24	.58355	76.500	44.682	66.201

#1	-.00163	14.767	-.00098	-.00028	-.00020
#2	-.00002	14.646	-.00029	-.00014	-.00056

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143540-D-2-A Acquired: 10/26/2018 20:28:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00149
Stddev .00109
%RSD 73.344

#1 .00226
#2 .00072

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2323.0	1354.7	42890.	3375.4
Stddev	.9	1.8	285.	23.8
%RSD	.04016	.13383	.66437	.70629

#1	2323.6	1356.0	42689.	3358.6
#2	2322.3	1353.4	43091.	3392.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.299%	81.506%	89.830%	91.313%
Range				

Sample Name: 480-143540-D-3-A Acquired: 10/26/2018 20:32:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.03263	.00042	1.2119	.00927
Stddev	.00009	.00281	.00144	.0022	.00001
%RSD	12.622	8.6146	339.74	.18339	.11094

#1	-.00063	.03064	-.00060	1.2135	.00928
#2	-.00075	.03462	.00145	1.2104	.00926

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	573.56	.00074	.0300	-.00030
Stddev	.00007	5.95	.00016	.0201	.00004
%RSD	95.407	1.0368	22.015	66.90	14.131

#1	.00013	569.35	.00062	.0158	-.00033
#2	.00002	577.76	.00085	.0443	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00116	-.00039	.46334	9.5990	.04428
Stddev	.00013	.00000	.00027	.0302	.00139
%RSD	11.348	.95218	.05785	.31465	3.1447

#1	.00107	-.00039	.46315	9.5776	.04329
#2	.00125	-.00038	.46353	9.6203	.04526

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-3-A Acquired: 10/26/2018 20:32:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	51.644	.05150	.00057	34.841	-.00018
Stddev	.050	.00016	.00015	.080	.00023
%RSD	.09661	.31838	27.069	.23057	129.91

#1	51.680	.05139	.00046	34.784	-.00001
#2	51.609	.05162	.00068	34.897	-.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00225	F 537.6	-.00344	-.00726	6.9599
Stddev	.00120	.3	.00189	.00343	.0320
%RSD	53.363	.0483	55.115	47.316	.45953

#1	-.00311	537.4	-.00210	-.00483	6.9373
#2	-.00140	537.8	-.00478	-.00969	6.9825

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00049	F 12.400	-.00067	.00102	-.00038
Stddev	.00032	.101	.00011	.00087	.00020
%RSD	64.629	.81746	16.815	85.326	53.759

#1	-.00072	12.328	-.00059	.00040	-.00052
#2	-.00027	12.472	-.00075	.00164	-.00023

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143540-D-3-A Acquired: 10/26/2018 20:32:25 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00234**
 Stddev .00098
 %RSD 41.857

#1 **.00164**
 #2 **.00303**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2343.1	1364.8	43017.	3401.8
Stddev	.3	1.1	18.	23.5
%RSD	.01436	.07835	.04225	.69007

#1	2342.9	1364.1	43004.	3418.4
#2	2343.4	1365.6	43030.	3385.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.005%	82.115%	90.095%	92.025%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 20:36:26 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48612	23.442	.48503	.49318	.48846	.45139	23.781	.51897
Stddev	.00049	.019	.00647	.00007	.00192	.00112	.057	.00196
%RSD	.09979	.07954	1.3330	.01336	.39235	.24725	.23879	.37744
#1	.48646	23.428	.48046	.49322	.48981	.45060	23.740	.51759
#2	.48578	23.455	.48961	.49313	.48710	.45217	23.821	.52036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	.48252	.47979	.47939	22.560	23.251	.45913	23.485
Stddev	.0028	.00067	.00181	.00006	.036	.035	.00007	.031
%RSD	215.0	.13803	.37788	.01235	.15910	.15188	.01538	.13227
#1	-.0007	.48205	.48107	.47935	22.535	23.226	.45908	23.507
#2	.0033	.48299	.47851	.47943	22.585	23.276	.45918	23.463

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47953	.49461	23.001	.45941	.48775	26.69	.50404	.49046
Stddev	.00103	.00002	.009	.00026	.00203	.01	.00183	.00104
%RSD	.21480	.00443	.03827	.05664	.41662	.0326	.36326	.21191
#1	.48026	.49459	22.995	.45959	.48631	26.68	.50275	.48972
#2	.47881	.49462	23.007	.45922	.48919	26.69	.50534	.49119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/26/2018 20:36:26 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.837	.49727	.48152	.47216	.45313	.47683	.47971
Stddev	.170	.00032	.00008	.00071	.00030	.00182	.00169
%RSD	.71456	.06531	.01598	.14958	.06515	.38171	.35285

#1	23.716	.49750	.48146	.47266	.45333	.47812	.48091
#2	23.957	.49704	.48157	.47166	.45292	.47554	.47851

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2655.6	1496.6	46339.	3534.1
Stddev	.0	.5	126.	18.1
%RSD	.00052	.03618	.27175	.51159

#1	2655.6	1497.0	46250.	3546.9
#2	2655.6	1496.3	46428.	3521.3

Sample Name: CCB-4957862 Acquired: 10/26/2018 20:40:09 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	-.00318	.00292	.00110	.00002	.00004	.00344	.00006
Stddev	.00013	.01308	.00008	.00016	.00002	.00005	.00077	.00008
%RSD	116.99	411.04	2.8734	14.637	122.58	124.06	22.364	122.05

#1	-.00002	.00607	.00286	.00122	.00003	.00007	.00290	.00012
#2	-.00020	-.01243	.00298	.00099	.00000	.00000	.00399	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045	-.00009	-.00010	.00017	-.00004	.04175	.00042	.00043
Stddev	.0153	.00004	.00005	.00003	.00134	.00381	.00038	.00338
%RSD	341.6	41.018	44.494	16.864	3227.9	9.1307	91.234	777.06

#1	-.0063	-.00007	-.00007	.00019	.00091	.03906	.00069	-.00195
#2	.0153	-.00012	-.00013	.00015	-.00099	.04445	.00015	.00282

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00082	.14885	-.00026	-.00101	.0479	-.00014	-.00147
Stddev	.00001	.00014	.00178	.00028	.00028	.0021	.00140	.00193
%RSD	150.87	16.551	1.1969	109.25	27.815	4.326	1004.2	131.14

#1	-.00000	.00092	.14759	-.00006	-.00081	.0464	-.00113	-.00283
#2	.00002	.00073	.15011	-.00046	-.00121	.0493	.00085	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 20:40:09 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00580	.00037	.00004	.00011	-.00044	.00010	.00025
Stddev	.00759	.00008	.00003	.00015	.00045	.00015	.00025
%RSD	130.81	20.461	73.495	138.43	100.28	151.77	98.239

#1	.01117	.00043	.00002	.00000	-.00076	-.00001	.00008
#2	.00044	.00032	.00006	.00021	-.00013	.00020	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.5	1536.3	47847.	3566.6
Stddev	.3	3.4	204.	13.9
%RSD	.00987	.21995	.42694	.39097

#1	2818.6	1538.7	47702.	3576.5
#2	2818.3	1533.9	47991.	3556.7

Sample Name: CCVL-4954076 Acquired: 10/26/2018 20:44:02 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00586	.19259	.01357	.02125	.00206	.00198	.49925	.00214
Stddev	.00028	.00962	.00031	.00028	.00001	.00001	.00354	.00011
%RSD	4.8427	4.9953	2.2741	1.3336	.40521	.50858	.70835	5.2990

#1	.00566	.18579	.01335	.02145	.00206	.00198	.49675	.00206
#2	.00606	.19939	.01379	.02105	.00205	.00197	.50175	.00222

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0129	.00380	.00378	.00943	.04651	.48461	.02760	.20056
Stddev	.0055	.00019	.00011	.00020	.00287	.00091	.00006	.00077
%RSD	42.41	4.9088	2.8727	2.0690	6.1792	.18763	.23220	.38263

#1	.0168	.00367	.00386	.00956	.04854	.48396	.02764	.20110
#2	.0090	.00393	.00370	.00929	.04447	.48525	.02755	.20002

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00271	.00996	1.0208	.00934	.00875	W .2618	.01978	.02160
Stddev	.00007	.00002	.0063	.00029	.00125	.0021	.00010	.00154
%RSD	2.4683	.24510	.61961	3.0725	14.249	.7856	.51065	7.1109

#1	.00276	.00994	1.0253	.00954	.00963	.2604	.01985	.02269
#2	.00266	.00997	1.0163	.00914	.00786	.2633	.01971	.02052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value						.2000		
Range						30.00%		

Sample Name: CCVL-4954076 Acquired: 10/26/2018 20:44:02 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46864	.01023	.00487	.00450	.01814	.00449	.01105
Stddev	.01193	.00055	.00004	.00036	.00015	.00021	.00018
%RSD	2.5454	5.3329	.77359	7.9712	.81443	4.5987	1.6353

#1	.46021	.00984	.00484	.00425	.01804	.00463	.01092
#2	.47708	.01061	.00489	.00475	.01824	.00434	.01117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2803.8	1529.6	47555.	3550.8
Stddev	1.3	4.6	51.	5.4
%RSD	.04525	.29943	.10770	.15076

#1	2804.7	1532.9	47591.	3547.0
#2	2802.9	1526.4	47519.	3554.6

Sample Name: 480-143540-D-4-B Acquired: 10/26/2018 20:47:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.03268	-.00045	2.6917	.01894
Stddev	.00028	.02379	.00039	.0005	.00004
%RSD	80.148	72.801	86.283	.01711	.20309

#1	-.00056	.04950	-.00017	2.6920	.01891
#2	-.00015	.01586	-.00072	2.6914	.01897

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	455.88	.00021	.0118	.00014
Stddev	.00010	2.04	.00006	.0284	.00001
%RSD	118.52	.44802	28.000	241.4	8.9114

#1	.00015	454.43	.00025	-.0083	.00013
#2	.00001	457.32	.00017	.0319	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00148	-.00015	.16781	14.014	.07737
Stddev	.00022	.00021	.00187	.024	.00083
%RSD	15.109	138.68	1.1140	.17393	1.0699

#1	.00164	-.00000	.16913	13.997	.07795
#2	.00132	-.00031	.16649	14.032	.07678

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-B Acquired: 10/26/2018 20:47:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	59.789	.03763	.00181	97.271	.00084
Stddev	.030	.00008	.00014	.379	.00045
%RSD	.05034	.21191	7.6921	.39002	53.845

#1	59.810	.03769	.00191	97.003	.00116
#2	59.767	.03758	.00171	97.539	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00313	F 490.3	-.00319	-.01167	5.8433
Stddev	.00191	.6	.00125	.00243	.0040
%RSD	61.110	.1146	39.166	20.791	.06875

#1	-.00178	489.9	-.00231	-.01339	5.8405
#2	-.00448	490.7	-.00408	-.00996	5.8462

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	8.7631	-.00062	.00013	-.00042
Stddev	.00022	.0088	.00002	.00076	.00033
%RSD	79.137	.10005	3.3726	582.34	79.129

#1	.00012	8.7569	-.00064	-.00041	-.00018
#2	.00044	8.7693	-.00061	.00067	-.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-B Acquired: 10/26/2018 20:47:53 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00211**
 Stddev .00024
 %RSD 11.475

#1 **.00194**
 #2 **.00228**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2350.5	1365.8	42992.	3395.7
Stddev	1.9	.0	18.	2.3
%RSD	.08173	.00197	.04288	.06662

#1	2351.9	1365.8	42979.	3394.1
#2	2349.1	1365.8	43005.	3397.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.263%	82.176%	90.044%	91.861%
Range				

Sample Name: 480-143540-D-4-Bsd@5 Acquired: 10/26/2018 20:51:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	.00037	-.00018	.52821	.00384
Stddev	.00004	.00016	.00013	.00160	.00001
%RSD	4.9565	41.656	70.588	.30301	.22706

#1	-.00071	.00048	-.00009	.52935	.00383
#2	-.00077	.00026	-.00027	.52708	.00385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	93.593	.00016	.0254	-.00009
Stddev	.00004	.263	.00007	.0004	.00016
%RSD	228.69	.28128	45.621	1.438	188.21

#1	.00004	93.779	.00011	.0256	.00003
#2	-.00001	93.406	.00021	.0251	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	-.00017	.03372	2.6341	.01566
Stddev	.00037	.00008	.00148	.0020	.00018
%RSD	185.35	46.474	4.3859	.07592	1.1234

#1	-.00006	-.00022	.03267	2.6327	.01578
#2	.00047	-.00011	.03477	2.6355	.01553

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-Bsd@5 Acquired: 10/26/2018 20:51:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.967	.00754	.00043	17.794	.00028
Stddev	.039	.00007	.00007	.017	.00019
%RSD	.32685	.96161	15.617	.09328	69.758

#1	11.995	.00749	.00038	17.805	.00041
#2	11.940	.00759	.00047	17.782	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00048	F 94.34	-.00236	-.00675	1.1156
Stddev	.00006	.33	.00067	.00047	.0070
%RSD	11.415	.3540	28.421	7.0078	.63073

#1	.00052	94.58	-.00283	-.00642	1.1206
#2	.00044	94.10	-.00189	-.00709	1.1106

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	1.7867	-.00048	.00038	.00009
Stddev	.00036	.0012	.00006	.00117	.00026
%RSD	82.833	.06859	13.053	310.22	304.45

#1	.00069	1.7876	-.00043	-.00045	.00027
#2	.00018	1.7858	-.00052	.00120	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-Bsd@5 Acquired: 10/26/2018 20:51:52 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00017**
 Stddev .00034
 %RSD 196.35

#1 -.00007
 #2 .00041

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2637.2	1461.9	45736.	3488.6
Stddev	1.3	2.1	19.	9.1
%RSD	.04851	.14662	.04166	.26052

#1	2638.2	1460.4	45722.	3482.2
#2	2636.3	1463.4	45749.	3495.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.298%	87.958%	95.790%	94.374%
Range				

Sample Name: 480-143540-D-4-Bpds Acquired: 10/26/2018 20:55:40 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05160	10.176	.22542	2.8821	.22107
Stddev	.00005	.073	.00172	.0062	.00050
%RSD	.09358	.71889	.76126	.21529	.22630

#1	.05164	10.124	.22663	2.8777	.22142
#2	.05157	10.228	.22421	2.8865	.22071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19517	452.93	.22700	.0231	.20250
Stddev	.00042	.67	.00028	.0017	.00069
%RSD	.21765	.14724	.12211	7.545	.34091

#1	.19547	453.40	.22720	.0219	.20298
#2	.19487	452.46	.22681	.0243	.20201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19340	.20243	9.4273	24.242	.28694
Stddev	.00012	.00032	.0367	.131	.00131
%RSD	.05961	.15890	.38887	.54158	.45733

#1	.19348	.20220	9.4532	24.335	.28786
#2	.19332	.20266	9.4014	24.149	.28601

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-Bpds Acquired: 10/26/2018 20:55:40 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	67.758	.22221	.20635	106.14	.20312
Stddev	.084	.00040	.00064	.05	.00008
%RSD	.12384	.17784	.30893	.04431	.04051

#1	67.817	.22193	.20590	106.17	.20306
#2	67.699	.22249	.20680	106.10	.20318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21524	F 492.3	.22828	.22161	15.771
Stddev	.00306	.2	.00109	.00001	.000
%RSD	1.4232	.0487	.47815	.00361	.00199

#1	.21740	492.2	.22906	.22161	15.772
#2	.21307	492.5	.22751	.22162	15.771

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21520	8.7160	.19659	.19025	.19687
Stddev	.00043	.0515	.00052	.00106	.00132
%RSD	.20196	.59033	.26366	.55608	.67046

#1	.21551	8.7523	.19622	.19100	.19780
#2	.21489	8.6796	.19695	.18951	.19594

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-Bpds Acquired: 10/26/2018 20:55:40 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19389**
 Stddev .00261
 %RSD 1.3484

#1 **.19204**
 #2 **.19574**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2318.8	1350.2	43127.	3387.5
Stddev	.4	.4	89.	11.5
%RSD	.01867	.02789	.20690	.33978

#1	2318.5	1350.4	43190.	3379.4
#2	2319.1	1349.9	43064.	3395.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.152%	81.234%	90.326%	91.639%
Range				

Sample Name: 480-143540-D-4-C MS Acquired: 10/26/2018 20:59:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05073	9.8217	.21779	2.7934	.21835
Stddev	.00002	.0911	.00121	.0112	.00006
%RSD	.04774	.92720	.55743	.39996	.02533

#1	.05071	9.8861	.21693	2.8013	.21839
#2	.05075	9.7573	.21865	2.7855	.21831

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19029	476.93	.23070	.0222	.19826
Stddev	.00055	3.74	.00070	.0150	.00044
%RSD	.28899	.78411	.30191	67.70	.21951

#1	.19068	474.28	.23120	.0116	.19857
#2	.18990	479.57	.23021	.0328	.19795

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18867	.19762	9.2390	23.560	.28229
Stddev	.00047	.00034	.0081	.037	.00094
%RSD	.24683	.17403	.08772	.15622	.33275

#1	.18834	.19786	9.2333	23.586	.28295
#2	.18900	.19737	9.2448	23.534	.28162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-C MS Acquired: 10/26/2018 20:59:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	70.081	.22170	.20278	106.52	.19463
Stddev	.083	.00030	.00091	.03	.00054
%RSD	.11850	.13413	.44852	.03267	.27687

#1	70.022	.22149	.20342	106.54	.19501
#2	70.140	.22191	.20214	106.49	.19425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20325	F 512.6	.21636	.21783	15.853
Stddev	.00050	1.7	.00068	.00175	.048
%RSD	.24572	.3298	.31547	.80557	.30164

#1	.20360	513.8	.21684	.21659	15.819
#2	.20290	511.4	.21588	.21907	15.886

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21088	F 9.1527	.19105	.18403	.18938
Stddev	.00031	.1197	.00058	.00018	.00089
%RSD	.14705	1.3076	.30245	.09606	.46870

#1	.21110	9.2373	.19145	.18415	.18876
#2	.21066	9.0680	.19064	.18390	.19001

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143540-D-4-C MS Acquired: 10/26/2018 20:59:31 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19435**
 Stddev .00035
 %RSD .18014

#1 **.19460**
 #2 **.19411**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2306.3	1345.9	42951.	3386.2
Stddev	1.9	4.3	52.	3.2
%RSD	.08181	.32133	.12053	.09494

#1	2304.9	1342.9	42914.	3388.5
#2	2307.6	1349.0	42988.	3383.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.714%	80.980%	89.957%	91.603%
Range				

Sample Name: 480-143540-D-4-D MSD Acquired: 10/26/2018 21:03:22 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05064	9.8787	.21902	2.8846	.22013
Stddev	.00051	.0229	.00090	.0080	.00095
%RSD	1.0149	.23169	.40877	.27646	.43182

#1	.05100	9.8625	.21839	2.8790	.21946
#2	.05027	9.8949	.21966	2.8903	.22080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19044	488.45	.23148	.0194	.19907
Stddev	.00037	4.79	.00048	.0197	.00051
%RSD	.19166	.98138	.20873	101.2	.25594

#1	.19019	485.06	.23114	.0334	.19871
#2	.19070	491.84	.23182	.0055	.19943

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19132	.19769	9.2397	24.083	.28619
Stddev	.00020	.00089	.0230	.014	.00006
%RSD	.10569	.44793	.24885	.06007	.02247

#1	.19118	.19707	9.2234	24.073	.28624
#2	.19146	.19832	9.2559	24.093	.28614

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-4-D MSD Acquired: 10/26/2018 21:03:22 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	71.626	.22380	.20275	109.27	.19522
Stddev	.042	.00010	.00024	.11	.00070
%RSD	.05899	.04550	.11779	.10250	.35819

#1	71.596	.22373	.20258	109.19	.19571
#2	71.656	.22387	.20292	109.35	.19472

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20294	F 525.7	.21804	.22134	15.988
Stddev	.00072	1.8	.00097	.00515	.110
%RSD	.35279	.3366	.44307	2.3247	.68858

#1	.20345	524.5	.21736	.21770	15.910
#2	.20244	527.0	.21873	.22498	16.066

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21274	F 9.3545	.19087	.18528	.19173
Stddev	.00088	.0001	.00033	.00046	.00080
%RSD	.41191	.00136	.17532	.24883	.41918

#1	.21212	9.3544	.19063	.18495	.19116
#2	.21336	9.3546	.19110	.18560	.19229

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143540-D-4-D MSD Acquired: 10/26/2018 21:03:22 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19618**
 Stddev .00060
 %RSD .30781

#1 .19660
 #2 .19575

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2302.6	1340.3	42641.	3361.3
Stddev	2.4	5.6	181.	10.1
%RSD	.10608	.41543	.42462	.29901

#1	2304.3	1344.3	42769.	3368.4
#2	2300.8	1336.4	42513.	3354.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.585%	80.642%	89.308%	90.931%
Range				

Sample Name: 480-143540-D-5-A Acquired: 10/26/2018 21:07:14 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	.12849	-.00396	.33031	.01716
Stddev	.00000	.02083	.00183	.00056	.00004
%RSD	.80862	16.210	46.154	.16956	.25206

#1	-.00039	.11376	-.00526	.33071	.01713
#2	-.00039	.14322	-.00267	.32992	.01719

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	565.41	.00030	.0309	-.00041
Stddev	.00002	5.13	.00011	.0029	.00012
%RSD	21.963	.90732	38.963	9.557	28.355

#1	.00007	569.03	.00038	.0288	-.00033
#2	.00010	561.78	.00021	.0329	-.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00051	-.00028	.51056	4.1686	.02511
Stddev	.00012	.00002	.00172	.0330	.00060
%RSD	23.810	8.5654	.33702	.79092	2.3701

#1	.00059	-.00030	.51178	4.1919	.02553
#2	.00042	-.00027	.50934	4.1453	.02469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143540-D-5-A Acquired: 10/26/2018 21:07:14 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	43.696	.01884	.00125	8.2571	-.00079
Stddev	.022	.00001	.00010	.0655	.00057
%RSD	.04939	.05960	7.6309	.79353	73.028

#1	43.681	.01884	.00118	8.3034	-.00038
#2	43.711	.01885	.00131	8.2108	-.00119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00234	F 527.5	-.00412	-.01094	7.3108
Stddev	.00267	.8	.00120	.00091	.0203
%RSD	114.22	.1528	29.145	8.3128	.27737

#1	-.00423	528.1	-.00497	-.01158	7.3252
#2	-.00045	526.9	-.00327	-.01030	7.2965

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	F 16.042	.00098	.00022	-.00031
Stddev	.00007	.064	.00004	.00094	.00016
%RSD	10.486	.39729	4.0422	428.98	52.843

#1	-.00058	16.087	.00095	-.00045	-.00020
#2	-.00067	15.997	.00100	.00089	-.00043

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143540-D-5-A Acquired: 10/26/2018 21:07:14 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00019**
 Stddev .00014
 %RSD 73.116

#1 **.00009**
 #2 **.00028**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2348.3	1343.6	42813.	3360.8
Stddev	2.5	1.0	105.	23.3
%RSD	.10450	.07288	.24419	.69410

#1	2346.5	1342.9	42887.	3344.3
#2	2350.0	1344.3	42739.	3377.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.184%	80.837%	89.668%	90.917%
Range				

Sample Name: 480-143546-D-1-A Acquired: 10/26/2018 21:11:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	-.00287	.00601	.01987	.10109
Stddev	.00038	.02295	.00012	.00050	.00024
%RSD	214.27	799.10	1.9643	2.5282	.23364

#1	-.00044	.01336	.00593	.02022	.10093
#2	.00009	-.01910	.00609	.01951	.10126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	53.823	.00003	.0047	-.00032
Stddev	.00001	.011	.00014	.0076	.00005
%RSD	39.395	.01962	404.14	163.6	16.980

#1	.00003	53.830	-.00006	-.0007	-.00036
#2	.00002	53.815	.00013	.0101	-.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00050	.70122	.58581	.00621
Stddev	.00023	.00004	.00045	.02186	.00007
%RSD	1208.4	7.9928	.06479	3.7322	1.0658

#1	-.00015	.00047	.70154	.60127	.00616
#2	.00019	.00053	.70090	.57035	.00625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143546-D-1-A Acquired: 10/26/2018 21:11:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.236	.03408	.00281	4.8851	-.00020
Stddev	.009	.00008	.00010	.0132	.00027
%RSD	.06187	.24592	3.6374	.26963	134.14

#1	15.243	.03402	.00274	4.8944	-.00039
#2	15.229	.03414	.00289	4.8758	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	11.61	-.00246	-.00025	5.5851
Stddev	.00027	.06	.00242	.00113	.0122
%RSD	34.246	.4796	98.395	461.69	.21852

#1	-.00060	11.65	-.00075	.00056	5.5765
#2	-.00099	11.57	-.00417	-.00105	5.5937

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.14681	-.00028	.00158	-.00021
Stddev	.00036	.00030	.00007	.00067	.00033
%RSD	136.18	.20449	25.793	42.199	153.76

#1	-.00001	.14702	-.00033	.00111	.00002
#2	-.00051	.14660	-.00023	.00205	-.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143546-D-1-A Acquired: 10/26/2018 21:11:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00112
Stddev .00127
%RSD 112.90

#1 .00202
#2 .00023

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2663.5	1461.0	46114.	3486.1
Stddev	5.6	6.9	100.	8.8
%RSD	.20897	.47137	.21765	.25268

#1	2659.5	1456.1	46185.	3492.3
#2	2667.4	1465.9	46043.	3479.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.216%	87.902%	96.581%	94.305%
Range				

Sample Name: 480-143546-D-2-A Acquired: 10/26/2018 21:15:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.00714	-.00052	.02172	.12948
Stddev	.00009	.00920	.00140	.00054	.00005
%RSD	34.494	128.80	269.09	2.4639	.04129

#1	-.00019	.00064	.00047	.02134	.12952
#2	-.00032	.01365	-.00151	.02210	.12944

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	69.151	.00011	-.0088	-.00028
Stddev	.00005	.150	.00004	.0028	.00011
%RSD	99.896	.21687	36.256	31.42	40.362

#1	.00002	69.045	.00008	-.0108	-.00036
#2	.00009	69.257	.00014	-.0068	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.01084	.00745	1.0796	.00490
Stddev	.00011	.00027	.00212	.0232	.00020
%RSD	103.71	2.5285	28.498	2.1467	4.1418

#1	-.00003	.01103	.00895	1.0632	.00476
#2	-.00018	.01065	.00595	1.0960	.00505

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143546-D-2-A Acquired: 10/26/2018 21:15:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.162	.00004	.00041	25.007	-.00027
Stddev	.031	.00003	.00000	.049	.00015
%RSD	.22086	71.665	1.0387	.19425	55.364

#1	14.184	.00002	.00041	24.972	-.00037
#2	14.140	.00006	.00041	25.041	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	1.528	-.00306	-.00738	2.7984
Stddev	.00056	.006	.00117	.00352	.0014
%RSD	242.81	.4208	38.062	47.702	.04941

#1	-.00063	1.532	-.00224	-.00489	2.7974
#2	.00017	1.523	-.00389	-.00987	2.7994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.09078	-.00024	-.00018	.00026
Stddev	.00046	.00004	.00006	.00208	.00016
%RSD	1214.5	.04548	23.140	1176.1	59.781

#1	-.00029	.09076	-.00020	-.00165	.00015
#2	.00036	.09081	-.00028	.00129	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143546-D-2-A Acquired: 10/26/2018 21:15:01 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.05088**
 Stddev .00057
 %RSD 1.1157

#1 **.05129**
 #2 **.05048**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2611.5	1444.7	45722.	3453.8
Stddev	3.9	1.1	26.	5.7
%RSD	.15105	.07298	.05754	.16442

#1	2614.3	1445.4	45703.	3457.8
#2	2608.8	1443.9	45740.	3449.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.399%	86.922%	95.760%	93.431%
Range				

Sample Name: 480-143550-D-1-A Acquired: 10/26/2018 21:18:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.01344	-.00183	.04274	.02697
Stddev	.00012	.00311	.00140	.00001	.00016
%RSD	43.511	23.155	76.628	.02199	.58505

#1	-.00037	.01564	-.00084	.04274	.02685
#2	-.00020	.01124	-.00282	.04273	.02708

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	42.681	.00024	-.0021	-.00028
Stddev	.00001	.045	.00004	.0020	.00022
%RSD	4.9446	.10521	17.661	94.42	77.790

#1	.00011	42.649	.00021	-.0007	-.00043
#2	.00010	42.713	.00026	-.0036	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	-.00011	37.822	3.5438	.03092
Stddev	.00020	.00015	.009	.0129	.00049
%RSD	37.862	135.73	.02459	.36253	1.5805

#1	-.00039	-.00022	37.815	3.5529	.03126
#2	-.00068	-.00000	37.829	3.5347	.03057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-1-A Acquired: 10/26/2018 21:18:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	40.198	5.0216	-.00048	15.859	.00152
Stddev	.018	.0194	.00001	.023	.00025
%RSD	.04441	.38576	1.5920	.14779	16.561

#1	40.210	5.0079	-.00047	15.876	.00170
#2	40.185	5.0353	-.00048	15.842	.00134

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00196	55.28	-.00615	-.00013	8.2705
Stddev	.00055	.10	.00056	.00349	.0197
%RSD	28.307	.1821	9.1268	2614.1	.23871

#1	.00156	55.21	-.00576	-.00260	8.2845
#2	.00235	55.35	-.00655	.00233	8.2566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.19734	.00005	.00076	.00005
Stddev	.00062	.00053	.00030	.00064	.00016
%RSD	548.43	.26981	651.63	84.138	336.33

#1	.00055	.19772	.00026	.00031	-.00007
#2	-.00033	.19697	-.00017	.00122	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-1-A Acquired: 10/26/2018 21:18:50 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00566**
 Stddev .00019
 %RSD 3.2860

#1 **.00579**
 #2 **.00553**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2601.0	1444.6	45625.	3477.1
Stddev	.5	1.2	169.	15.2
%RSD	.01743	.08616	.37027	.43740

#1	2600.7	1445.5	45744.	3487.9
#2	2601.4	1443.8	45505.	3466.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.031%	86.919%	95.557%	94.063%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 21:22:44 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48785	23.325	.48758	.50286	.48715	.45100	24.137
Stddev	.00068	.067	.00193	.00014	.00292	.00148	.119
%RSD	.13944	.28835	.39680	.02856	.59909	.32756	.49149

#1	.48737	23.373	.48621	.50276	.48921	.45205	24.221
#2	.48833	23.277	.48895	.50296	.48508	.44996	24.053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53189	.0007	.48622	.47903	.47669	F 22.465	23.231
Stddev	.00073	.0141	.00016	.00064	.00050	.046	.084
%RSD	.13649	2039.	.03285	.13417	.10408	.20489	.36229

#1	.53138	-.0093	.48611	.47949	.47634	22.497	23.291
#2	.53240	.0106	.48633	.47858	.47704	22.432	23.172

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						25.000	
Range						-10.000%	

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45954	23.620	.47877	.49718	22.600	.45778	.49402
Stddev	.00167	.031	.00138	.00042	.041	.00053	.00141
%RSD	.36348	.13082	.28761	.08379	.18283	.11510	.28589

#1	.46072	23.642	.47974	.49689	22.629	.45815	.49501
#2	.45836	23.598	.47779	.49748	22.571	.45741	.49302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/26/2018 21:22:44 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.34	.51363	.49446	24.172	.50274	.47110	.47206
Stddev	.02	.00089	.00067	.057	.00209	.00047	.00106
%RSD	.0801	.17392	.13592	.23638	.41611	.10037	.22504

#1	27.33	.51426	.49398	24.131	.50422	.47144	.47131
#2	27.36	.51300	.49493	24.212	.50127	.47077	.47281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.45078	.46995	.48626
Stddev	.00017	.00145	.00279
%RSD	.03740	.30954	.57299

#1	.45090	.47098	.48823
#2	.45066	.46892	.48429

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2629.9	1459.6	45978.	3456.4
Stddev	5.0	3.9	20.	10.1
%RSD	.18866	.26823	.04327	.29196

#1	2633.4	1462.4	45964.	3449.3
#2	2626.3	1456.9	45992.	3463.6

Sample Name: CCB-4957862 Acquired: 10/26/2018 21:26:27 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.01492	-.00098	.00146	.00003	-.00000	-.00047	-.00001
Stddev	.00019	.00140	.00077	.00004	.00001	.00002	.00114	.00013
%RSD	50.404	9.3848	77.838	2.9519	27.135	976.13	241.10	2298.4
#1	-.00024	.01591	-.00152	.00150	.00003	-.00002	-.00128	-.00009
#2	-.00050	.01393	-.00044	.00143	.00002	.00001	.00033	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039	-.00014	.00004	.00016	.00001	.01959	.00110	.00095
Stddev	.0024	.00005	.00016	.00019	.00289	.03032	.00014	.00111
%RSD	62.23	35.197	348.33	115.44	42432.	154.73	12.923	117.33
#1	.0022	-.00018	-.00007	.00030	-.00204	-.00184	.00100	.00016
#2	.0056	-.00011	.00015	.00003	.00205	.04103	.00120	.00174

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.00098	.12931	-.00018	.00004	.0418	.00053	-.00244
Stddev	.00001	.00036	.00593	.00002	.00062	.0023	.00132	.00110
%RSD	129.62	36.661	4.5831	13.721	1470.4	5.474	252.00	45.183
#1	.00000	.00073	.13350	-.00016	.00048	.0402	.00146	-.00166
#2	.00001	.00124	.12512	-.00020	-.00040	.0434	-.00041	-.00323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 21:26:27 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00444	.00067	.00002	-.00002	-.00025	.00015	.00031
Stddev	.00261	.00082	.00007	.00004	.00017	.00006	.00046
%RSD	58.623	122.56	317.93	152.95	67.203	40.354	150.65

#1	-.00629	.00009	.00007	-.00005	-.00013	.00011	.00063
#2	-.00260	.00125	-.00003	.00000	-.00037	.00020	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.4	1499.8	47555.	3513.6
Stddev	2.3	3.0	163.	16.9
%RSD	.08394	.19954	.34285	.48213

#1	2793.8	1497.7	47671.	3501.6
#2	2797.1	1502.0	47440.	3525.6

Sample Name: CCVL-4954076 Acquired: 10/26/2018 21:30:20 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00562	.20475	.01520	.02183	.00206	.00195	.50100	.00219
Stddev	.00022	.00793	.00464	.00003	.00001	.00002	.00246	.00002
%RSD	3.8467	3.8709	30.564	.15795	.39538	.90198	.49048	.78221
#1	.00546	.21036	.01191	.02186	.00207	.00194	.50273	.00220
#2	.00577	.19915	.01848	.02181	.00206	.00196	.49926	.00218

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093	.00373	.00370	.00931	.04587	.47544	.02702	.19916
Stddev	.0033	.00008	.00038	.00021	.00099	.00776	.00071	.00119
%RSD	35.35	2.1659	10.180	2.2270	2.1497	1.6318	2.6160	.59726
#1	.0070	.00378	.00343	.00946	.04517	.48093	.02752	.20000
#2	.0116	.00367	.00397	.00916	.04657	.46996	.02652	.19832

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00274	.00994	.99342	.00926	.00985	W .2608	.01882	.02133
Stddev	.00003	.00025	.00437	.00005	.00055	.0040	.00111	.00321
%RSD	1.1390	2.4953	.43990	.51949	5.5522	1.526	5.9012	15.064
#1	.00272	.00976	.99651	.00922	.01024	.2580	.01803	.01905
#2	.00277	.01011	.99033	.00929	.00947	.2637	.01960	.02360

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn .2000 30.00%	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/26/2018 21:30:20 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45652	.00955	.00472	.00457	.01737	.00472	.01221
Stddev	.00007	.00053	.00009	.00001	.00078	.00019	.00040
%RSD	.01501	5.5657	1.9679	.28780	4.4992	3.9658	3.2713
#1	.45647	.00993	.00465	.00458	.01682	.00459	.01193
#2	.45657	.00917	.00478	.00457	.01793	.00485	.01249

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2782.5	1512.9	47302.	3537.4
Stddev	3.2	2.8	113.	4.5
%RSD	.11325	.18718	.23941	.12789
#1	2780.2	1510.9	47222.	3540.6
#2	2784.7	1514.9	47382.	3534.2

Sample Name: 480-143550-D-2-A Acquired: 10/26/2018 21:34:12 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	.59571	-.00008	.01558	.01424
Stddev	.00015	.02151	.00109	.00033	.00004
%RSD	36.555	3.6112	1358.9	2.1202	.30001

#1	-.00051	.58050	.00069	.01582	.01421
#2	-.00030	.61092	-.00085	.01535	.01427

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00076	19.437	.00065	-.0196	.09997
Stddev	.00007	.005	.00001	.0166	.00001
%RSD	8.8521	.02331	1.7088	84.62	.00934

#1	.00081	19.441	.00066	-.0313	.09998
#2	.00072	19.434	.00064	-.0079	.09996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.00495	.14488	2.6096	.00579
Stddev	.00043	.00054	.00228	.0235	.00098
%RSD	58.787	10.910	1.5706	.90096	16.890

#1	.00103	.00533	.14327	2.6262	.00510
#2	.00042	.00457	.14649	2.5930	.00648

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-2-A Acquired: 10/26/2018 21:34:12 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	38.374	15.341	-.00057	16.438	.07273
Stddev	.030	.019	.00017	.013	.00001
%RSD	.07719	.12669	29.608	.07711	.01511

#1	38.395	15.354	-.00069	16.447	.07273
#2	38.353	15.327	-.00045	16.429	.07274

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00202	F 95.49	-.00295	.00321	8.8601
Stddev	.00076	.13	.00105	.00003	.0552
%RSD	37.513	.1351	35.512	.99342	.62258

#1	.00256	95.59	-.00221	.00319	8.8992
#2	.00149	95.40	-.00369	.00323	8.8211

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.08734	.00057	.00244	-.00011
Stddev	.00035	.00022	.00015	.00079	.00031
%RSD	160.32	.24810	26.794	32.279	290.92

#1	.00003	.08750	.00046	.00188	-.00032
#2	-.00046	.08719	.00068	.00300	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-2-A Acquired: 10/26/2018 21:34:12 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.07180**
 Stddev .00032
 %RSD .44394

#1 **.07203**
 #2 **.07158**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2675.2	1501.2	46148.	3545.6
Stddev	5.8	4.4	121.	7.7
%RSD	.21623	.29610	.26230	.21679

#1	2679.3	1504.4	46063.	3540.2
#2	2671.1	1498.1	46234.	3551.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.626%	90.323%	96.654%	95.916%
Range				

Sample Name: 480-143550-D-3-A Acquired: 10/26/2018 21:38:03 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.03669	-.00087	.00631	.00800
Stddev	.00039	.00273	.00296	.00041	.00001
%RSD	981.15	7.4405	341.93	6.4891	.08933

#1	-.00031	.03862	.00123	.00660	.00800
#2	.00024	.03476	-.00296	.00602	.00801

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	4.5518	.00008	-.0038	.00091
Stddev	.00005	.0087	.00007	.0007	.00009
%RSD	80.860	.19124	83.966	17.69	9.5187

#1	.00002	4.5456	.00003	-.0033	.00098
#2	.00009	4.5579	.00013	-.0043	.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00174	.02995	1.5300	.00540
Stddev	.00023	.00010	.00010	.0166	.00076
%RSD	99.192	5.8244	.32343	1.0824	14.125

#1	.00040	.00167	.03002	1.5183	.00486
#2	.00007	.00181	.02988	1.5417	.00594

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-3-A Acquired: 10/26/2018 21:38:03 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.5794	.27807	.00018	8.4784	.01922
Stddev	.0074	.00041	.00005	.0031	.00014
%RSD	.16182	.14683	29.318	.03630	.73254

#1	4.5742	.27835	.00022	8.4806	.01932
#2	4.5847	.27778	.00014	8.4762	.01912

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00090	.9067	-.00207	.00075	9.1205
Stddev	.00043	.0001	.00076	.00137	.0257
%RSD	47.913	.0132	36.505	181.46	.28138

#1	-.00060	.9068	-.00261	.00172	9.1023
#2	-.00121	.9066	-.00154	-.00021	9.1386

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.02402	.00004	-.00000	.00016
Stddev	.00045	.00004	.00041	.00079	.00014
%RSD	333.75	.16753	1014.2	322640.	88.184

#1	-.00045	.02405	.00033	-.00056	.00026
#2	.00018	.02399	-.00025	.00056	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-3-A Acquired: 10/26/2018 21:38:03 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.01520**
Stddev .00034
%RSD 2.2428

#1 **.01544**
#2 **.01496**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2744.5	1512.4	46647.	3531.7
Stddev	7.1	3.6	11.	5.7
%RSD	.26009	.23877	.02293	.16105

#1	2739.5	1509.8	46640.	3535.8
#2	2749.6	1514.9	46655.	3527.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.053%	90.994%	97.699%	95.540%
Range				

Sample Name: 480-143550-D-4-A Acquired: 10/26/2018 21:41:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.01301	.00146	.00743	.00996
Stddev	.00054	.02374	.00183	.00025	.00003
%RSD	454.79	182.57	125.88	3.4150	.30528

#1	.00027	.02979	.00016	.00725	.00998
#2	-.00050	-.00378	.00275	.00761	.00994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	3.3959	.00010	.0000	-.00008
Stddev	.00003	.0037	.00006	.0045	.00006
%RSD	26.616	.10803	60.474	9145.	69.665

#1	.00009	3.3933	.00006	-.0031	-.00004
#2	.00013	3.3985	.00015	.0032	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00793	.00645	1.1999	.01509
Stddev	.00015	.00014	.00161	.0060	.00147
%RSD	77.727	1.7970	24.876	.49953	9.7277

#1	.00009	.00803	.00759	1.2041	.01405
#2	.00030	.00783	.00532	1.1957	.01613

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-4-A Acquired: 10/26/2018 21:41:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.3816	.02597	.00018	10.369	.00888
Stddev	.0053	.00002	.00027	.004	.00017
%RSD	.12189	.08865	154.12	.04258	1.9017

#1	4.3854	.02598	-.00002	10.366	.00876
#2	4.3778	.02595	.00037	10.373	.00900

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	8.137	-.00211	.00003	11.570
Stddev	.00068	.013	.00194	.00152	.036
%RSD	206.42	.1574	91.954	5179.5	.31426

#1	.00015	8.128	-.00074	-.00105	11.595
#2	-.00081	8.146	-.00348	.00111	11.544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.01488	-.00019	.00005	.00009
Stddev	.00013	.00010	.00018	.00029	.00011
%RSD	26.233	.63911	95.359	530.32	121.98

#1	.00040	.01481	-.00032	-.00015	.00001
#2	.00059	.01495	-.00006	.00026	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-4-A Acquired: 10/26/2018 21:41:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.03596**
Stddev .00073
%RSD 2.0331

#1 **.03545**
#2 **.03648**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2746.0	1506.0	46797.	3529.7
Stddev	1.0	4.3	145.	1.6
%RSD	.03482	.28225	.31051	.04461

#1	2746.6	1509.0	46694.	3530.8
#2	2745.3	1503.0	46900.	3528.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.104%	90.612%	98.013%	95.485%
Range				

Sample Name: 480-143550-D-5-A Acquired: 10/26/2018 21:45:40 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.05370	.00214	.00409	.00537
Stddev	.00032	.02150	.00152	.00031	.00000
%RSD	350.49	40.041	70.935	7.6291	.07000

#1	.00013	.06891	.00322	.00387	.00536
#2	-.00031	.03850	.00107	.00431	.00537

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	3.7662	.00007	.0060	.00087
Stddev	.00001	.0060	.00002	.0037	.00002
%RSD	19.086	.15982	28.162	62.04	2.5988

#1	.00004	3.7705	.00005	.0086	.00086
#2	.00005	3.7620	.00008	.0034	.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00098	3.6384	1.2760	.00810
Stddev	.00017	.00000	.0081	.0103	.00019
%RSD	74.512	.05720	.22344	.80545	2.3044

#1	-.00011	.00098	3.6441	1.2832	.00823
#2	-.00034	.00098	3.6326	1.2687	.00797

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-5-A Acquired: 10/26/2018 21:45:40 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.5457	.16425	.00085	8.4293	.00490
Stddev	.0029	.00012	.00018	.0013	.00010
%RSD	.11598	.07277	21.163	.01569	2.0511

#1	2.5436	.16434	.00098	8.4302	.00497
#2	2.5478	.16417	.00072	8.4284	.00483

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.6658	-.00158	-.00175	10.293
Stddev	.00014	.0048	.00046	.00460	.014
%RSD	30.590	.7143	29.270	263.19	.13369

#1	-.00037	.6624	-.00125	-.00500	10.302
#2	-.00057	.6691	-.00191	.00150	10.283

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.05109	-.00021	-.00081	.00032
Stddev	.00008	.00007	.00014	.00070	.00005
%RSD	128.61	.12787	64.383	86.024	17.143

#1	.00001	.05105	-.00012	-.00032	.00036
#2	.00012	.05114	-.00031	-.00131	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-5-A Acquired: 10/26/2018 21:45:40 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .01199
Stddev .00047
%RSD 3.9154

#1 .01165
#2 .01232

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2750.1	1508.8	46932.	3549.0
Stddev	1.3	.4	73.	6.0
%RSD	.04585	.02337	.15531	.16958

#1	2749.2	1508.6	46983.	3544.8
#2	2751.0	1509.0	46880.	3553.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.248%	90.779%	98.294%	96.008%
Range				

Sample Name: 480-143550-D-6-A Acquired: 10/26/2018 21:49:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.02461	.00115	.22633	.11224
Stddev	.00012	.00709	.00307	.00057	.00018
%RSD	23.843	28.821	266.38	.25180	.16320

#1	-.00060	.01959	.00333	.22674	.11211
#2	-.00043	.02962	-.00102	.22593	.11237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	30.479	-.00001	-.0430	.31147
Stddev	.00003	.038	.00005	.0148	.00073
%RSD	46.650	.12535	459.39	34.30	.23563

#1	.00005	30.506	.00003	-.0326	.31095
#2	.00009	30.452	-.00005	-.0534	.31199

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.00048	13.664	6.3334	.01302
Stddev	.00047	.00007	.007	.0191	.00021
%RSD	90.332	13.846	.05338	.30195	1.6315

#1	-.00019	.00052	13.669	6.3469	.01317
#2	-.00085	.00043	13.659	6.3199	.01287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-6-A Acquired: 10/26/2018 21:49:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.869	18.158	-.00068	43.805	.01262
Stddev	.035	.010	.00003	.081	.00008
%RSD	.22364	.05367	5.1628	.18586	.66176

#1	15.895	18.151	-.00070	43.748	.01267
#2	15.844	18.164	-.00065	43.863	.01256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00104	25.83	-.00449	.00346	3.5015
Stddev	.00041	.06	.00091	.00035	.0158
%RSD	39.336	.2484	20.287	10.241	.44989

#1	.00075	25.88	-.00513	.00371	3.4903
#2	.00133	25.78	-.00384	.00321	3.5126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.10280	-.00016	.00373	.00030
Stddev	.00055	.00055	.00028	.00031	.00016
%RSD	284.06	.53834	178.72	8.3882	54.340

#1	-.00019	.10241	-.00036	.00395	.00018
#2	.00058	.10319	.00004	.00351	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-6-A Acquired: 10/26/2018 21:49:29 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00367**
 Stddev .00017
 %RSD 4.5535

#1 **.00355**
 #2 **.00378**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2607.1	1462.9	45628.	3490.7
Stddev	.1	1.0	182.	.7
%RSD	.00391	.06916	.39877	.01970

#1	2607.0	1462.2	45499.	3491.2
#2	2607.1	1463.6	45757.	3490.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.242%	88.018%	95.564%	94.430%
Range				

Sample Name: 480-143550-D-7-A Acquired: 10/26/2018 21:53:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	.02057	.00180	.01062	.12108
Stddev	.00006	.00749	.00064	.00037	.00012
%RSD	8.0464	36.416	35.672	3.4670	.09800

#1	-.00080	.02587	.00226	.01088	.12100
#2	-.00071	.01527	.00135	.01036	.12116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	9.2112	.00014	.0074	.00483
Stddev	.00008	.0028	.00001	.0089	.00008
%RSD	336.32	.03061	9.5200	119.5	1.5588

#1	-.00003	9.2092	.00015	.0012	.00488
#2	.00008	9.2132	.00013	.0137	.00478

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.00286	5.2552	2.1797	.01607
Stddev	.00001	.00012	.0046	.0116	.00026
%RSD	4.7208	4.3228	.08791	.53264	1.5883

#1	-.00018	.00295	5.2519	2.1879	.01625
#2	-.00020	.00278	5.2585	2.1715	.01589

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-7-A Acquired: 10/26/2018 21:53:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.1085	6.4602	-.00003	15.898	.00138
Stddev	.0023	.0139	.00011	.043	.00025
%RSD	.02490	.21516	413.96	.26833	18.289

#1	9.1101	6.4701	.00005	15.928	.00121
#2	9.1069	6.4504	-.00010	15.868	.00156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	4.130	-.00394	.00244	15.579
Stddev	.00030	.004	.00061	.00174	.057
%RSD	458.52	.0978	15.574	71.227	.36430

#1	-.00015	4.127	-.00351	.00121	15.539
#2	.00028	4.133	-.00437	.00367	15.619

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00082	.03866	-.00023	.00020	-.00009
Stddev	.00005	.00001	.00024	.00187	.00023
%RSD	5.6319	.01477	106.78	936.98	246.80

#1	.00079	.03867	-.00040	.00152	-.00025
#2	.00085	.03866	-.00006	-.00112	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-7-A Acquired: 10/26/2018 21:53:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00848**
Stddev .00019
%RSD 2.2947

#1 **.00862**
#2 **.00834**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2699.4	1485.1	46443.	3522.2
Stddev	1.1	1.2	25.	.4
%RSD	.04212	.08333	.05470	.01111

#1	2700.2	1484.2	46461.	3521.9
#2	2698.6	1486.0	46425.	3522.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.472%	89.353%	97.272%	95.282%
Range				

Sample Name: 480-143550-D-8-A Acquired: 10/26/2018 21:57:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.02144	-.00047	.00523	.02063
Stddev	.00007	.03542	.00068	.00022	.00011
%RSD	41.853	165.24	143.53	4.1217	.54561

#1	-.00023	-.00361	.00001	.00538	.02071
#2	-.00012	.04648	-.00095	.00508	.02055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	8.8845	.00009	-.0030	-.00020
Stddev	.00003	.0020	.00004	.0030	.00001
%RSD	76.919	.02261	41.724	98.69	7.2851

#1	.00002	8.8860	.00007	-.0051	-.00019
#2	.00007	8.8831	.00012	-.0009	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00043	.00748	1.6066	.00232
Stddev	.00002	.00008	.00037	.0092	.00071
%RSD	3.3716	18.560	4.9062	.57271	30.438

#1	.00044	.00049	.00722	1.6131	.00182
#2	.00046	.00038	.00774	1.6001	.00282

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-8-A Acquired: 10/26/2018 21:57:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.9394	.00287	.00010	5.8200	.00599
Stddev	.0146	.00001	.00011	.0021	.00029
%RSD	.21009	.33299	109.78	.03596	4.8443

#1	6.9497	.00288	.00002	5.8215	.00578
#2	6.9290	.00287	.00018	5.8186	.00619

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	16.28	-.00143	-.00071	7.7981
Stddev	.00117	.03	.00013	.00136	.0575
%RSD	279.00	.1703	9.2944	190.81	.73719

#1	.00041	16.30	-.00153	.00025	7.7574
#2	-.00125	16.26	-.00134	-.00168	7.8387

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.03848	-.00035	.00003	.00009
Stddev	.00032	.00001	.00012	.00044	.00017
%RSD	180.33	.02478	34.527	1613.3	183.14

#1	-.00005	.03847	-.00026	.00034	.00021
#2	.00040	.03848	-.00043	-.00028	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143550-D-8-A Acquired: 10/26/2018 21:57:13 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03186**
 Stddev .00038
 %RSD 1.1976

#1 **.03213**
 #2 **.03159**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2741.3	1490.7	46746.	3487.3
Stddev	.7	.7	148.	1.9
%RSD	.02397	.04835	.31632	.05320

#1	2740.8	1491.2	46641.	3488.6
#2	2741.7	1490.2	46850.	3486.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.939%	89.690%	97.905%	94.339%
Range				

Sample Name: 480-143252-A-1-A Acquired: 10/26/2018 22:01:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.15693	.04934	6.8666	.64633
Stddev	.00012	.00020	.00109	.0013	.00231
%RSD	294.35	.12873	2.2076	.01871	.35758

#1	.00004	.15679	.05011	6.8657	.64469
#2	-.00013	.15708	.04857	6.8675	.64796

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	42.806	.00017	-.0135	.02952
Stddev	.00001	.168	.00005	.0001	.00013
%RSD	36.439	.39279	27.129	1.057	.44723

#1	.00005	42.925	.00014	-.0134	.02961
#2	.00003	42.687	.00021	-.0136	.02942

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.14287	.00374	1.9324	401.97	.13595
Stddev	.00036	.00062	.0055	.93	.00084
%RSD	.25057	16.716	.28255	.23178	.61487

#1	.14262	.00330	1.9363	402.63	.13654
#2	.14313	.00418	1.9286	401.31	.13536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-A-1-A Acquired: 10/26/2018 22:01:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	74.183	.09481	.00655	F 1309.0	.22332
Stddev	.104	.00049	.00013	1.5	.00109
%RSD	.14054	.51869	2.0513	.11380	.48989

#1	74.109	.09446	.00645	1307.9	.22410
#2	74.256	.09515	.00664	1310.0	.22255

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00243	32.43	.00994	-.00549	18.964
Stddev	.00131	.13	.00028	.00263	.051
%RSD	53.948	.3979	2.8369	47.863	.26699

#1	.00335	32.52	.01013	-.00363	19.000
#2	.00150	32.34	.00974	-.00735	18.928

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02384	.40228	.13138	.00161	.04290
Stddev	.00046	.00037	.00015	.00057	.00100
%RSD	1.9102	.09147	.11244	35.159	2.3287

#1	.02417	.40202	.13127	.00121	.04361
#2	.02352	.40254	.13148	.00201	.04220

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-A-1-A Acquired: 10/26/2018 22:01:01 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.12393**
 Stddev .00007
 %RSD .05754

#1 **.12398**
 #2 **.12388**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2115.4	1316.0	39942.	3283.2
Stddev	1.7	1.3	73.	1.6
%RSD	.08211	.09827	.18166	.04880

#1	2114.2	1315.1	39993.	3282.1
#2	2116.6	1317.0	39890.	3284.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.034%	79.181%	83.655%	88.818%
Range				

Sample Name: 480-143252-B-2-A Acquired: 10/26/2018 22:04:56 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.07826	.06211	7.0748	.41562
Stddev	.00012	.00204	.00279	.0061	.00036
%RSD	258.74	2.6030	4.4926	.08647	.08623

#1	-.00004	.07971	.06408	7.0705	.41537
#2	.00013	.07682	.06013	7.0791	.41587

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	41.083	.00027	.0072	.03028
Stddev	.00001	.107	.00007	.0189	.00031
%RSD	6916.9	.26109	24.803	263.8	1.0396

#1	.00001	41.159	.00022	-.0062	.03051
#2	-.00001	41.008	.00032	.0206	.03006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.13213	.00316	1.6745	411.27	.14026
Stddev	.00002	.00083	.0040	.16	.00084
%RSD	.01215	26.164	.24201	.03872	.59909

#1	.13214	.00257	1.6716	411.38	.13966
#2	.13212	.00374	1.6774	411.15	.14085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-B-2-A Acquired: 10/26/2018 22:04:56 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	75.220	.10547	.00729	F 1347.2	.23338
Stddev	.129	.00008	.00047	4.3	.00033
%RSD	.17123	.07867	6.4329	.31916	.14089

#1	75.311	.10541	.00696	1344.1	.23315
#2	75.129	.10553	.00762	1350.2	.23361

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00162	34.82	.00947	-.00800	17.690
Stddev	.00047	.07	.00092	.00002	.079
%RSD	28.935	.1902	9.6867	.23870	.44764

#1	.00196	34.77	.01012	-.00802	17.746
#2	.00129	34.86	.00882	-.00799	17.634

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01720	.34910	.09491	.00068	.04641
Stddev	.00195	.00105	.00077	.00020	.00023
%RSD	11.337	.29996	.81426	29.022	.49255

#1	.01858	.34836	.09437	.00082	.04657
#2	.01582	.34984	.09546	.00054	.04625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-B-2-A Acquired: 10/26/2018 22:04:56 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22845**
 Stddev .00076
 %RSD .33254

#1 **.22899**
 #2 **.22791**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2123.7	1314.9	40152.	3299.9
Stddev	1.6	1.5	12.	8.4
%RSD	.07649	.11098	.02913	.25324

#1	2124.8	1315.9	40144.	3294.0
#2	2122.6	1313.9	40161.	3305.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.325%	79.113%	84.096%	89.268%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 22:08:54 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49564	23.515	.49442	.50986	.49399	.45681	24.314	.53016
Stddev	.00127	.227	.00157	.00042	.00113	.00252	.060	.00052
%RSD	.25535	.96513	.31732	.08229	.22875	.55088	.24484	.09727
#1	.49474	23.355	.49553	.51016	.49319	.45503	24.272	.53052
#2	.49653	23.675	.49332	.50957	.49479	.45859	24.356	.52979

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0043	.49256	.48958	.48648	22.752	23.613	.46311	24.029
Stddev	.0031	.00017	.00134	.00066	.144	.061	.00042	.043
%RSD	72.93	.03468	.27345	.13507	.63192	.25657	.09072	.17772
#1	-.0021	.49244	.48863	.48602	22.651	23.570	.46281	23.999
#2	-.0065	.49268	.49053	.48695	22.854	23.656	.46341	24.059

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48799	.50288	23.019	.46809	.49983	27.38	.51384	.50355
Stddev	.00018	.00047	.179	.00091	.00085	.16	.00094	.00319
%RSD	.03599	.09272	.77576	.19505	.16958	.5928	.18246	.63271
#1	.48786	.50255	22.893	.46745	.50042	27.50	.51450	.50581
#2	.48811	.50321	23.145	.46874	.49923	27.27	.51317	.50130

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 22:08:54 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.153	.50924	.47878	.48063	.45866	.48004	.49272
Stddev	.173	.00136	.00405	.00096	.00053	.00157	.00085
%RSD	.68704	.26709	.84594	.19992	.11634	.32618	.17168
#1	25.031	.51020	.47592	.48131	.45903	.47893	.49212
#2	25.275	.50827	.48164	.47995	.45828	.48114	.49332

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2614.2	1467.9	45512.	3458.0
Stddev	1.8	2.1	57.	8.7
%RSD	.06887	.14149	.12595	.25248
#1	2612.9	1466.4	45553.	3464.2
#2	2615.5	1469.4	45472.	3451.8

Sample Name: CCB-4957862 Acquired: 10/26/2018 22:12:38 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00453	.00045	.00483	.00001	.00001	.00121	.00003
Stddev	.00012	.00090	.00135	.00031	.00001	.00002	.00017	.00011
%RSD	94.498	19.790	298.05	6.4511	77.870	185.98	14.143	417.78

#1	-.00021	.00390	-.00050	.00505	.00000	-.00000	.00133	-.00005
#2	-.00004	.00517	.00140	.00461	.00001	.00003	.00109	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022	-.00013	-.00011	.00001	-.00109	.11496	.00070	-.00151
Stddev	.0083	.00003	.00014	.00007	.00061	.00474	.00074	.00273
%RSD	375.9	22.479	131.41	496.18	56.134	4.1243	105.49	180.80

#1	.0080	-.00015	-.00021	-.00003	-.00152	.11831	.00018	.00042
#2	-.0036	-.00011	-.00001	.00006	-.00066	.11161	.00122	-.00344

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00070	.20631	-.00015	.00022	.0220	-.00042	-.00309
Stddev	.00000	.00008	.00232	.00016	.00006	.0004	.00138	.00073
%RSD	4.8091	11.103	1.1233	107.47	26.666	1.689	330.45	23.615

#1	.00005	.00076	.20795	-.00004	.00026	.0223	-.00140	-.00258
#2	.00005	.00065	.20467	-.00026	.00018	.0218	.00056	-.00361

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 22:12:38 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02406	.00012	.00003	.00001	-.00136	-.00010	-.00005
Stddev	.01174	.00024	.00004	.00001	.00096	.00035	.00003
%RSD	48.804	203.44	144.80	125.91	71.176	359.27	69.148

#1	.01576	-.00005	.00006	.00002	-.00067	.00015	-.00002
#2	.03236	.00029	-.00000	.00000	-.00204	-.00035	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2787.3	1541.8	47266.	3493.9
Stddev	.2	.9	183.	.7
%RSD	.00896	.05924	.38786	.02097

#1	2787.1	1541.2	47136.	3494.4
#2	2787.5	1542.5	47395.	3493.3

Sample Name: CCVL-4954076 Acquired: 10/26/2018 22:16:30 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00598	.20250	.01607	.02393	.00204	.00195	.50575	.00208
Stddev	.00006	.01187	.00096	.00027	.00003	.00005	.00034	.00002
%RSD	.95361	5.8622	5.9518	1.1490	1.3995	2.7311	.06816	.79758
#1	.00602	.19410	.01674	.02374	.00202	.00191	.50551	.00207
#2	.00594	.21089	.01539	.02413	.00206	.00198	.50600	.00210

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.00380	.00405	.00934	.04677	.53692	.02729	.20066
Stddev	.0069	.00003	.00019	.00021	.00067	.00350	.00004	.00150
%RSD	910.2	.74841	4.7403	2.2644	1.4411	.65181	.13359	.74721
#1	.0057	.00378	.00418	.00919	.04724	.53444	.02726	.20172
#2	-.0042	.00382	.00391	.00949	.04629	.53939	.02732	.19960

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00276	.00965	1.0646	.00972	.00904	.2327	.01880	.02141
Stddev	.00001	.00005	.0077	.00020	.00026	.0041	.00119	.00362
%RSD	.43703	.46897	.72024	2.0160	2.8557	1.780	6.3091	16.899
#1	.00277	.00962	1.0592	.00958	.00923	.2298	.01964	.01885
#2	.00275	.00968	1.0700	.00986	.00886	.2356	.01797	.02397

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/26/2018 22:16:30 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45091	.00983	.00484	.00451	.01793	.00481	.01117
Stddev	.00372	.00028	.00007	.00002	.00026	.00011	.00019
%RSD	.82448	2.8346	1.4232	.37585	1.4660	2.2683	1.7368

#1	.44828	.00964	.00480	.00450	.01812	.00489	.01131
#2	.45354	.01003	.00489	.00452	.01774	.00473	.01103

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2773.3	1538.8	47047.	3496.3
Stddev	1.4	3.7	35.	1.7
%RSD	.05199	.23801	.07440	.04845

#1	2774.3	1541.4	47072.	3495.1
#2	2772.3	1536.2	47022.	3497.5

Sample Name: 480-143252-B-3-A Acquired: 10/26/2018 22:20:22 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.03851	.00641	.85949	.09299
Stddev	.00025	.00472	.00244	.00216	.00011
%RSD	84.478	12.254	38.035	.25096	.11492

#1	-.00012	.04184	.00468	.86101	.09292
#2	-.00047	.03517	.00813	.85796	.09307

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	19.620	-.00002	.0230	.00220
Stddev	.00004	.056	.00000	.0026	.00018
%RSD	195.08	.28710	17.560	11.48	8.1095

#1	-.00001	19.660	-.00003	.0249	.00208
#2	.00005	19.580	-.00002	.0212	.00233

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00325	.00049	.41639	34.764	.01493
Stddev	.00028	.00002	.00270	.026	.00025
%RSD	8.6896	3.0791	.64736	.07378	1.6435

#1	.00305	.00050	.41830	34.782	.01476
#2	.00345	.00048	.41448	34.746	.01511

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-B-3-A Acquired: 10/26/2018 22:20:22 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.479	.07143	.00118	125.30	.01813
Stddev	.018	.00007	.00014	.17	.00040
%RSD	.11838	.09967	11.551	.13722	2.2200

#1	15.466	.07138	.00108	125.42	.01841
#2	15.492	.07148	.00127	125.18	.01784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	6.012	-.00193	-.00291	2.9382
Stddev	.00092	.009	.00000	.00254	.0157
%RSD	203.67	.1499	.03359	87.049	.53479

#1	-.00110	6.006	-.00193	-.00112	2.9271
#2	.00020	6.018	-.00193	-.00471	2.9493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.10067	.00204	-.00026	.00129
Stddev	.00088	.00020	.00021	.00176	.00010
%RSD	236.97	.19378	10.160	665.45	7.4696

#1	.00099	.10053	.00219	-.00150	.00136
#2	-.00025	.10080	.00190	.00098	.00122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-B-3-A Acquired: 10/26/2018 22:20:22 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00447**
 Stddev .00020
 %RSD 4.5364

#1 **.00432**
 #2 **.00461**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2541.4	1468.2	44863.	3501.8
Stddev	1.1	3.7	151.	6.6
%RSD	.04219	.25495	.33642	.18829

#1	2540.7	1465.5	44970.	3497.1
#2	2542.2	1470.8	44757.	3506.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.945%	88.335%	93.963%	94.730%
Range				

Sample Name: 480-143252-A-4-A Acquired: 10/26/2018 22:24:09 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.01421	.02044	2.8888	.24315
Stddev	.00006	.00694	.00338	.0022	.00041
%RSD	28.953	48.839	16.547	.07790	.16885

#1	.00023	.00930	.02284	2.8872	.24344
#2	.00015	.01911	.01805	2.8904	.24286

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	22.564	.00006	.0059	.01054
Stddev	.00001	.058	.00002	.0083	.00010
%RSD	18.018	.25722	31.125	141.8	.92499

#1	.00003	22.605	.00007	.0117	.01061
#2	.00003	22.523	.00005	-.0000	.01047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04714	-.00002	.48627	158.73	.05380
Stddev	.00029	.00004	.00033	.42	.00071
%RSD	.60710	241.19	.06799	.26346	1.3286

#1	.04734	-.00005	.48650	159.02	.05329
#2	.04694	.00001	.48603	158.43	.05430

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-A-4-A Acquired: 10/26/2018 22:24:09 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	36.927	.03121	.00210	524.12	.08595
Stddev	.004	.00000	.00027	.15	.00018
%RSD	.01069	.01539	12.978	.02939	.20744

#1	36.925	.03122	.00191	524.01	.08608
#2	36.930	.03121	.00229	524.23	.08583

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	12.63	.00091	-.00775	6.6895
Stddev	.00042	.00	.00014	.00174	.0143
%RSD	240.78	.0294	15.712	22.459	.21297

#1	.00012	12.63	.00081	-.00652	6.6794
#2	-.00047	12.62	.00102	-.00898	6.6995

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00622	.18883	.03936	-.00081	.01330
Stddev	.00043	.00040	.00024	.00075	.00018
%RSD	6.9236	.21355	.59792	93.072	1.3577

#1	.00591	.18911	.03919	-.00134	.01343
#2	.00652	.18854	.03953	-.00028	.01317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143252-A-4-A Acquired: 10/26/2018 22:24:09 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01145**
 Stddev .00139
 %RSD 12.118

#1 **.01243**
 #2 **.01047**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2318.9	1398.6	42645.	3430.7
Stddev	3.9	.1	53.	3.3
%RSD	.16766	.00900	.12543	.09495

#1	2316.1	1398.6	42608.	3428.4
#2	2321.6	1398.7	42683.	3433.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	81.156%	84.151%	89.317%	92.808%
Range				

Sample Name: MB 480-441752/1-A Acquired: 10/26/2018 22:28:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.01621	.00109	.00461	.00034
Stddev	.00020	.00527	.00171	.00040	.00001
%RSD	136.42	32.545	157.43	8.7111	4.0432

#1	-0.00001	.01994	.00230	.00490	.00033
#2	-0.00029	.01248	-0.00012	.00433	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.08385	.00000	.0063	.00008
Stddev	.00006	.00113	.00014	.0115	.00030
%RSD	237.81	1.3493	13956.	180.9	371.12

#1	-0.00007	.08305	.00010	-0.0018	-0.00013
#2	.00002	.08465	-0.00010	.0145	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.00050	.01679	.14668	.00098
Stddev	.00017	.00024	.00025	.02268	.00143
%RSD	24.683	48.210	1.4812	15.462	146.12

#1	.00080	.00067	.01661	.13065	.00198
#2	.00056	.00033	.01696	.16272	-0.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441752/1-A Acquired: 10/26/2018 22:28:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00568	.00046	.00008	.20244	.00022
Stddev	.00389	.00005	.00002	.00065	.00008
%RSD	68.527	10.939	19.126	.32353	38.070

#1	.00843	.00050	.00007	.20290	.00028
#2	.00293	.00043	.00009	.20197	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.0324	.00012	-.00093	.35284
Stddev	.00152	.0003	.00093	.00311	.01149
%RSD	298.37	.9383	802.79	334.54	3.2578

#1	.00057	.0322	-.00054	.00127	.34471
#2	-.00158	.0326	.00077	-.00313	.36097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .03710	.00027	.00104	.00037	.00006
Stddev	.00025	.00000	.00003	.00080	.00005
%RSD	.68407	1.0559	2.6787	213.26	86.359

#1	.03692	.00027	.00106	.00094	.00009
#2	.03728	.00027	.00102	-.00019	.00002

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000				
Low Limit	-.01000				

Sample Name: MB 480-441752/1-A Acquired: 10/26/2018 22:28:02 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00507**
 Stddev .00031
 %RSD 6.1261

#1 **.00529**
 #2 **.00485**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2775.1	1518.3	47275.	3542.3
Stddev	2.5	2.6	171.	8.4
%RSD	.08845	.16922	.36215	.23773

#1	2773.4	1516.5	47154.	3548.2
#2	2776.8	1520.1	47396.	3536.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.123%	91.352%	99.013%	95.825%
Range				

Sample Name: LCSSRM 480-441752/2- Acquired: 10/26/2018 22:31:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.34173	80.852	1.3094	.76933	2.2008
Stddev	.00057	.432	.0001	.00059	.0068
%RSD	.16569	.53467	.00702	.07652	.30860

#1	.34133	80.547	1.3093	.76974	2.1960
#2	.34214	81.158	1.3095	.76891	2.2056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.79716	37.473	1.9744	.8112	.45360
Stddev	.00001	.013	.0001	.0165	.00022
%RSD	.00155	.03455	.00236	2.029	.04817

#1	.79715	37.482	1.9745	.8229	.45376
#2	.79716	37.464	1.9744	.7996	.45345

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0700	1.3708	109.72	19.023	.06030
Stddev	.0006	.0008	.16	.043	.00038
%RSD	.06049	.06044	.14235	.22581	.63031

#1	1.0704	1.3713	109.61	19.053	.06003
#2	1.0695	1.3702	109.83	18.993	.06057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Sample Name: LCSSRM 480-441752/2- Acquired: 10/26/2018 22:31:53 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.944	1.9052	.92939	2.0551	.84329
Stddev	.018	.0025	.00061	.0048	.00130
%RSD	.09094	.13340	.06590	.23158	.15415

#1	19.957	1.9070	.92982	2.0517	.84421
#2	19.931	1.9034	.92896	2.0585	.84237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99648	.8130	.42899	1.6290	5.6709
Stddev	.00156	.0018	.00038	.0010	.0085
%RSD	.15664	.2165	.08926	.05975	.14937

#1	.99537	.8117	.42926	1.6283	5.6649
#2	.99758	.8142	.42872	1.6297	5.6769

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.89724	.92323	4.1495	1.3851	.48362
Stddev	.00135	.00415	.0090	.0005	.00136
%RSD	.15020	.44977	.21618	.03822	.28187

#1	.89629	.92030	4.1559	1.3854	.48459
#2	.89819	.92617	4.1432	1.3847	.48266

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCSSRM 480-441752/2- Acquired: 10/26/2018 22:31:53 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.6362**
 Stddev .0054
 %RSD .32933

#1 1.6400
 #2 1.6323

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2545.7	1622.0	50591.	3882.6
Stddev	.8	.7	349.	18.3
%RSD	.03284	.04203	.69012	.47233

#1	2545.1	1622.4	50344.	3895.6
#2	2546.3	1621.5	50838.	3869.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.095%	97.587%	105.96%	105.03%
Range				

Sample Name: 480-143974-A-1-B Acquired: 10/26/2018 22:35:32 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00134	.53728	.00176	.00699	2.7595
Stddev	.00041	.00696	.00078	.00000	.0004
%RSD	30.725	1.2950	44.231	.06046	.01526

#1	-.00105	.53236	.00121	.00698	2.7592
#2	-.00163	.54220	.00232	.00699	2.7598

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	F 2970.0	.00176	.0221	.00057
Stddev	.00002	1.9	.00000	.0200	.00062
%RSD	47.668	.06236	.24846	90.49	110.24

#1	.00003	2968.7	.00176	.0363	.00012
#2	.00007	2971.3	.00176	.0080	.00101

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	.00915	.03959	.40344	.02900
Stddev	.00020	.00011	.00153	.01328	.00000
%RSD	28.018	1.2486	3.8724	3.2906	.00175

#1	.00056	.00907	.04067	.39405	.02900
#2	.00084	.00923	.03851	.41282	.02900

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143974-A-1-B Acquired: 10/26/2018 22:35:32 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	38.043	.09789	.00418	8.3473	.00873
Stddev	.029	.00029	.00009	.0071	.00096
%RSD	.07745	.29621	2.2077	.08481	11.034

#1	38.063	.09809	.00411	8.3523	.00805
#2	38.022	.09768	.00424	8.3423	.00941

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.02171	1.554	-.00452	-.00841	.34946
Stddev	.00074	.003	.00038	.00483	.01755
%RSD	3.4227	.1866	8.3532	57.397	5.0233

#1	-.02118	1.556	-.00478	-.01183	.33705
#2	-.02223	1.552	-.00425	-.00500	.36187

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	110.00				
Low Limit	-.01000				

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04003	F 11.183	-.00186	-.00343	-.00026
Stddev	.00066	.044	.00033	.00361	.00017
%RSD	1.6377	.39673	17.862	105.28	63.856

#1	.03956	11.152	-.00163	-.00088	-.00038
#2	.04049	11.215	-.00210	-.00599	-.00014

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143974-A-1-B Acquired: 10/26/2018 22:35:32 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02553**
 Stddev .00190
 %RSD 7.4487

#1 **.02688**
 #2 **.02419**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1864.3	1181.8	37157.	3098.8
Stddev	.0	2.5	36.	.3
%RSD	.00120	.20814	.09691	.01123

#1	1864.3	1183.6	37131.	3099.0
#2	1864.3	1180.1	37182.	3098.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	65.247%	71.106%	77.821%	83.829%
Range				

Sample Name: 480-143974-A-1-Bsd@5 Acquired: 10/26/2018 22:39:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.11098	.00117	.00225	.53301
Stddev	.00019	.00855	.00290	.00026	.00016
%RSD	71.575	7.7008	247.86	11.644	.03046

#1	-.00040	.11702	-.00088	.00244	.53289
#2	-.00013	.10493	.00323	.00207	.53312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	694.27	.00042	.0320	.00014
Stddev	.00004	6.67	.00009	.0003	.00011
%RSD	685.83	.96117	21.224	.8972	75.284

#1	.00002	689.55	.00036	.0318	.00022
#2	-.00003	698.99	.00049	.0322	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.00099	.00612	.18011	.00506
Stddev	.00031	.00029	.00174	.00991	.00018
%RSD	95.776	29.056	28.391	5.5024	3.6395

#1	.00010	.00120	.00735	.18712	.00493
#2	.00053	.00079	.00489	.17311	.00519

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143974-A-1-Bsd@5 Acquired: 10/26/2018 22:39:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.9915	.01988	.00071	1.6243	.00158
Stddev	.0209	.00008	.00004	.0106	.00008
%RSD	.26155	.42217	5.3651	.65484	4.9122

#1	8.0063	.01994	.00068	1.6167	.00152
#2	7.9768	.01982	.00073	1.6318	.00163

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00410	.2895	-.00273	-.00794	.03676
Stddev	.00173	.0006	.00067	.00594	.01040
%RSD	42.337	.2191	24.637	74.804	28.286

#1	-.00287	.2891	-.00321	-.01214	.02941
#2	-.00532	.2900	-.00226	-.00374	.04412

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00899	2.2198	-.00098	.00055	.00004
Stddev	.00009	.0188	.00031	.00031	.00043
%RSD	1.0432	.84560	32.041	55.957	1217.9

#1	.00893	2.2065	-.00120	.00034	.00034
#2	.00906	2.2331	-.00075	.00077	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143974-A-1-Bsd@5 Acquired: 10/26/2018 22:39:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00600**
 Stddev .00018
 %RSD 2.9267

#1 **.00612**
 #2 **.00588**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2308.1	1349.9	42375.	3331.6
Stddev	1.7	2.4	111.	8.3
%RSD	.07195	.18141	.26098	.24853

#1	2309.2	1348.1	42297.	3337.5
#2	2306.9	1351.6	42453.	3325.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.778%	81.217%	88.751%	90.127%
Range				

Sample Name: 480-143974-A-1-Bpds Acquired: 10/26/2018 22:43:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.11142	20.579	.45038	.44246	3.0198
Stddev	.00026	.026	.00117	.00001	.0040
%RSD	.23230	.12641	.25878	.00261	.13159

#1	.11124	20.597	.44955	.44247	3.0226
#2	.11161	20.560	.45120	.44245	3.0170

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35831	F 2856.3	.48347	.0225	.39775
Stddev	.00243	19.5	.00063	.0030	.00004
%RSD	.67793	.68162	.12985	13.35	.00917

#1	.36003	2870.0	.48391	.0246	.39778
#2	.35659	2842.5	.48302	.0203	.39773

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35594	.41573	16.863	23.102	.47016
Stddev	.00097	.00198	.095	.159	.00258
%RSD	.27202	.47508	.56533	.68618	.54772

#1	.35525	.41434	16.930	23.214	.47198
#2	.35662	.41713	16.795	22.990	.46834

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143974-A-1-Bpds Acquired: 10/26/2018 22:43:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	54.165	.43935	.38195	28.930	.39329
Stddev	.160	.00016	.00177	.083	.00037
%RSD	.29526	.03738	.46406	.28690	.09360

#1	54.052	.43923	.38320	28.989	.39355
#2	54.278	.43946	.38070	28.872	.39303

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.39684	1.474	.42480	.43577	.30810
Stddev	.00038	.010	.00593	.00105	.01909
%RSD	.09457	.6560	1.3966	.24116	6.1963

#1	.39657	1.467	.42899	.43651	.29460
#2	.39711	1.481	.42060	.43503	.32160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.46994	F 10.893	.36927	.35315	.37043
Stddev	.00111	.028	.00072	.00152	.00009
%RSD	.23711	.25428	.19379	.42913	.02475

#1	.47072	10.873	.36876	.35208	.37050
#2	.46915	10.912	.36977	.35422	.37037

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143974-A-1-Bpds Acquired: 10/26/2018 22:43:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.37813**
 Stddev .00252
 %RSD .66628

#1 **.37635**
 #2 **.37991**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1868.3	1184.4	37551.	3121.9
Stddev	3.2	3.6	74.	.2
%RSD	.17199	.30612	.19604	.00694

#1	1866.0	1181.9	37603.	3122.0
#2	1870.5	1187.0	37499.	3121.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	65.385%	71.263%	78.648%	84.453%
Range				

Sample Name: 480-143974-A-1-C MS Acquired: 10/26/2018 22:47:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05110	10.064	.20973	.20902	2.8279
Stddev	.00036	.069	.01058	.00067	.0023
%RSD	.69694	.68961	5.0464	.31993	.08140

#1	.05085	10.014	.20225	.20854	2.8262
#2	.05135	10.113	.21722	.20949	2.8295

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16680	F 2860.7	.22695	.0118	.18555
Stddev	.00028	5.5	.00001	.0034	.00016
%RSD	.16818	.19374	.00477	28.51	.08400

#1	.16700	2856.8	.22695	.0094	.18566
#2	.16660	2864.6	.22696	.0142	.18544

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16830	.19923	7.9819	11.114	.23580
Stddev	.00090	.00022	.0156	.014	.00027
%RSD	.53340	.11215	.19537	.12450	.11257

#1	.16893	.19907	7.9708	11.105	.23599
#2	.16766	.19939	7.9929	11.124	.23561

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143974-A-1-C MS Acquired: 10/26/2018 22:47:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	46.189	.20891	.18149	18.160	.18817
Stddev	.090	.00010	.00026	.007	.00067
%RSD	.19584	.04717	.14309	.03703	.35654

#1	46.253	.20898	.18131	18.165	.18769
#2	46.125	.20884	.18167	18.156	.18864

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17411	13.55	.20281	.19763	8.9733
Stddev	.00097	.04	.00130	.00055	.0325
%RSD	.55947	.2969	.64244	.27690	.36220

#1	.17480	13.52	.20189	.19802	8.9503
#2	.17342	13.58	.20373	.19725	8.9962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.23767	F 10.857	.17124	.16522	.17497
Stddev	.00039	.054	.00063	.00169	.00127
%RSD	.16433	.49389	.36573	1.0238	.72660

#1	.23794	10.895	.17168	.16642	.17587
#2	.23739	10.819	.17079	.16403	.17407

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143974-A-1-C MS Acquired: 10/26/2018 22:47:35 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.18819**
 Stddev .00115
 %RSD .61093

#1 **.18901**
 #2 **.18738**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1876.8	1182.1	37402.	3089.6
Stddev	.5	.9	146.	1.7
%RSD	.02533	.07344	.39018	.05566

#1	1876.5	1181.5	37298.	3090.9
#2	1877.2	1182.7	37505.	3088.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	65.685%	71.124%	78.335%	83.581%
Range				

Sample Name: 480-143974-A-1-D MSD Acquired: 10/26/2018 22:51:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05343	10.444	.21656	.21477	2.9788
Stddev	.00000	.107	.00375	.00053	.0000
%RSD	.00823	1.0246	1.7327	.24848	.00069

#1	.05344	10.369	.21391	.21515	2.9788
#2	.05343	10.520	.21922	.21439	2.9788

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17365	F 2991.7	.23283	.0184	.19313
Stddev	.00014	19.6	.00077	.0272	.00085
%RSD	.07974	.65349	.32946	147.8	.43974

#1	.17355	2977.8	.23337	-.0008	.19373
#2	.17375	3005.5	.23228	.0377	.19253

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17417	.20880	8.2908	11.566	.24572
Stddev	.00120	.00085	.0242	.028	.00028
%RSD	.69008	.40517	.29230	.24389	.11313

#1	.17502	.20940	8.2737	11.546	.24591
#2	.17332	.20821	8.3079	11.586	.24552

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143974-A-1-D MSD Acquired: 10/26/2018 22:51:31 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.980	.23744	.18710	18.793	.19648
Stddev	.138	.00069	.00043	.051	.00106
%RSD	.28705	.28851	.22971	.27007	.54100

#1	48.077	.23793	.18740	18.757	.19573
#2	47.882	.23696	.18679	18.829	.19723

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17886	13.90	.20878	.20404	9.3356
Stddev	.00159	.05	.00205	.00168	.0920
%RSD	.88864	.3300	.98306	.82294	.98557

#1	.17774	13.94	.21024	.20523	9.2705
#2	.17999	13.87	.20733	.20286	9.4007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24745	F 11.378	.17780	.17068	.18154
Stddev	.00049	.004	.00089	.00315	.00116
%RSD	.19714	.03100	.50111	1.8479	.64103

#1	.24710	11.380	.17843	.17291	.18072
#2	.24779	11.375	.17717	.16845	.18237

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143974-A-1-D MSD Acquired: 10/26/2018 22:51:31 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19497**
 Stddev .00261
 %RSD 1.3378

#1 **.19682**
 #2 **.19313**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1859.3	1187.2	37140.	3108.2
Stddev	.7	2.1	1.	9.6
%RSD	.03633	.17291	.00276	.30764

#1	1859.8	1185.8	37141.	3115.0
#2	1858.9	1188.7	37139.	3101.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	65.073%	71.431%	77.787%	84.083%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 22:55:28 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49327	23.636	.48858	.49296	.49491	.45989	24.245	.51966
Stddev	.00026	.069	.00315	.00074	.00551	.00150	.104	.00008
%RSD	.05257	.29014	.64455	.14916	1.1134	.32647	.42994	.01630
#1	.49345	23.685	.48635	.49244	.49881	.46095	24.319	.51972
#2	.49308	23.588	.49081	.49348	.49102	.45883	24.172	.51960

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0161	.48683	.48509	.48732	22.879	23.615	.46270	23.858
Stddev	.0112	.00080	.00147	.00042	.088	.116	.00110	.049
%RSD	69.65	.16417	.30324	.08592	.38503	.49180	.23668	.20342
#1	.0241	.48739	.48613	.48702	22.941	23.697	.46347	23.893
#2	.0082	.48626	.48405	.48761	22.817	23.533	.46192	23.824

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48800	.49787	23.295	.46656	.49120	26.62	.50908	.49647
Stddev	.00168	.00058	.104	.00126	.00094	.01	.00004	.00047
%RSD	.34430	.11744	.44626	.26954	.19056	.0234	.00755	.09390
#1	.48919	.49828	23.369	.46744	.49186	26.62	.50905	.49680
#2	.48681	.49746	23.222	.46567	.49054	26.63	.50911	.49614

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 22:55:28 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.218	.50251	.48928	.48106	.46093	.47772	.48433
Stddev	.014	.00186	.00237	.00175	.00042	.00238	.00383
%RSD	.05812	.36916	.48520	.36317	.09029	.49914	.79019
#1	24.208	.50383	.49096	.48229	.46063	.47940	.48704
#2	24.228	.50120	.48760	.47982	.46122	.47603	.48162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2627.3	1491.9	45954.	3463.8
Stddev	.9	1.2	307.	19.4
%RSD	.03268	.07934	.66792	.56133
#1	2626.7	1492.8	45737.	3450.0
#2	2627.9	1491.1	46171.	3477.5

Sample Name: CCB-4957862 Acquired: 10/26/2018 22:59:12 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.00695	-.00174	.00092	.00004	.00003	.02094	-.00013
Stddev	.00000	.00182	.00008	.00019	.00001	.00001	.00036	.00002
%RSD	.59098	26.122	4.4625	20.266	17.658	46.370	1.7091	18.096

#1	-.00020	.00567	-.00179	.00079	.00003	.00002	.02119	-.00012
#2	-.00019	.00824	-.00168	.00106	.00004	.00004	.02068	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0185	-.00011	-.00002	.00024	-.00039	.07727	.00023	.00110
Stddev	.0011	.00001	.00001	.00020	.00275	.00470	.00061	.00034
%RSD	5.755	7.1492	53.354	83.545	699.75	6.0820	263.98	30.820

#1	-.0192	-.00010	-.00003	.00010	.00155	.07394	-.00020	.00134
#2	-.0177	-.00011	-.00001	.00038	-.00233	.08059	.00066	.00086

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00092	.15239	-.00015	-.00053	.0080	.00074	.00122
Stddev	.00002	.00007	.00272	.00027	.00029	.0030	.00055	.00168
%RSD	172.26	7.1311	1.7871	180.40	54.597	37.85	74.679	137.61

#1	-.00003	.00087	.15431	.00004	-.00074	.0059	.00113	.00240
#2	.00000	.00096	.15046	-.00035	-.00033	.0102	.00035	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 22:59:12 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00174	.00064	.00008	.00031	-.00131	.00004	.00128
Stddev	.01096	.00035	.00002	.00011	.00020	.00005	.00018
%RSD	628.10	54.955	28.290	36.598	15.156	110.61	13.891

#1	-.00600	.00039	.00007	.00039	-.00117	.00008	.00140
#2	.00949	.00090	.00010	.00023	-.00145	.00001	.00115

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.1	1532.7	47300.	3523.2
Stddev	3.7	2.5	112.	6.2
%RSD	.13357	.16124	.23632	.17735

#1	2786.4	1534.5	47379.	3518.8
#2	2791.7	1531.0	47221.	3527.6

Sample Name: CCVL-4954076 Acquired: 10/26/2018 23:03:03 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00574	.18613	.01424	.02130	.00205	.00191	.51790	.00222
Stddev	.00020	.00730	.00088	.00074	.00001	.00001	.00217	.00012
%RSD	3.5183	3.9201	6.1920	3.4920	.30001	.33897	.41981	5.4928
#1	.00589	.18097	.01486	.02182	.00206	.00191	.51637	.00213
#2	.00560	.19129	.01361	.02077	.00205	.00191	.51944	.00230

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0069	.00376	.00409	.00960	.04432	.52633	.02737	.19698
Stddev	.0011	.00015	.00013	.00029	.00024	.00803	.00107	.00256
%RSD	15.56	3.8744	3.0621	2.9936	.54598	1.5258	3.9255	1.2996
#1	-.0077	.00365	.00418	.00940	.04449	.52066	.02661	.19879
#2	-.0062	.00386	.00400	.00980	.04415	.53201	.02813	.19517

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00270	.00992	1.0283	.00935	.00902	.2217	.01834	.02363
Stddev	.00004	.00008	.0185	.00034	.00099	.0044	.00102	.00235
%RSD	1.6484	.84836	1.7973	3.6416	10.983	2.003	5.5526	9.9499
#1	.00273	.00986	1.0152	.00911	.00972	.2185	.01762	.02197
#2	.00266	.00998	1.0413	.00959	.00832	.2248	.01906	.02530

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 23:03:03 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44862	.00928	.00483	.00434	.01759	.00466	.01132
Stddev	.01382	.00039	.00009	.00000	.00027	.00003	.00038
%RSD	3.0800	4.2539	1.7825	.07676	1.5094	.69758	3.3431

#1	.43884	.00900	.00477	.00434	.01777	.00464	.01159
#2	.45839	.00956	.00489	.00434	.01740	.00469	.01105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2774.1	1523.1	47163.	3503.1
Stddev	3.2	1.9	100.	.1
%RSD	.11453	.12713	.21250	.00239

#1	2776.3	1524.5	47092.	3503.1
#2	2771.8	1521.8	47234.	3503.0

Sample Name: MB 480-441765/1-A Acquired: 10/26/2018 23:06:55 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.00644	-.00017	.00084	.00005
Stddev	.00010	.00072	.00174	.00016	.00001
%RSD	35.427	11.122	1038.0	18.695	28.470

#1	-.00021	.00695	-.00140	.00095	.00006
#2	-.00035	.00593	.00107	.00073	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.03598	-.00008	.0115	-.00009
Stddev	.00006	.00036	.00007	.0025	.00007
%RSD	93.475	1.0129	83.395	21.92	74.813

#1	.00002	.03624	-.00003	.0132	-.00014
#2	.00011	.03572	-.00012	.0097	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00010	.00238	.07016	.00026
Stddev	.00004	.00020	.00259	.03972	.00107
%RSD	20.877	211.78	109.04	56.623	418.61

#1	.00020	-.00005	.00054	.04207	.00101
#2	.00015	.00024	.00421	.09825	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441765/1-A Acquired: 10/26/2018 23:06:55 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00189	.00025	-.00017	.14271	-.00000
Stddev	.00319	.00000	.00015	.00035	.00020
%RSD	168.29	.04829	87.593	.24595	5481.6

#1	-.00036	.00025	-.00006	.14296	-.00014
#2	.00415	.00025	-.00027	.14246	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.0182	-.00217	-.00185	-.04015
Stddev	.00005	.0001	.00019	.00055	.00339
%RSD	19.489	.3169	8.7099	29.815	8.4418

#1	.00029	.0182	-.00230	-.00146	-.04255
#2	.00022	.0182	-.00203	-.00223	-.03775

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00069	.00011	-.00011	-.00019	-.00019
Stddev	.00084	.00005	.00003	.00118	.00006
%RSD	122.65	41.940	23.884	608.82	28.562

#1	.00009	.00008	-.00013	-.00103	-.00023
#2	.00128	.00014	-.00009	.00064	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441765/1-A Acquired: 10/26/2018 23:06:55 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00237**
 Stddev .00059
 %RSD 24.788

#1 **.00196**
 #2 **.00279**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2775.8	1522.1	47553.	3538.9
Stddev	2.1	1.5	220.	14.4
%RSD	.07486	.09748	.46168	.40584

#1	2774.4	1521.0	47398.	3549.0
#2	2777.3	1523.1	47709.	3528.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.149%	91.577%	99.597%	95.733%
Range				

Sample Name: LCS 480-441765/2-A Acquired: 10/26/2018 23:10:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04618	9.0177	.19352	.19992	.18756
Stddev	.00036	.0277	.00513	.00051	.00045
%RSD	.77128	.30740	2.6506	.25511	.24168

#1	.04592	8.9981	.19715	.20029	.18788
#2	.04643	9.0373	.18990	.19956	.18724

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18060	9.1841	.20587	-.0001	.18220
Stddev	.00008	.0148	.00021	.0000	.00029
%RSD	.04169	.16076	.10406	6.283	.16081

#1	.18055	9.1737	.20602	-.0002	.18241
#2	.18065	9.1946	.20571	-.0001	.18200

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18366	.17955	8.6714	8.7802	.17317
Stddev	.00036	.00063	.0158	.0107	.00073
%RSD	.19697	.35107	.18260	.12241	.42114

#1	.18340	.18000	8.6602	8.7878	.17369
#2	.18392	.17911	8.6826	8.7726	.17266

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441765/2-A Acquired: 10/26/2018 23:10:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.2508	.18052	.18635	8.6265	.18123
Stddev	.0041	.00000	.00028	.0141	.00047
%RSD	.04471	.00256	.15191	.16306	.25766

#1	9.2479	.18051	.18655	8.6364	.18157
#2	9.2537	.18052	.18615	8.6165	.18090

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18840	10.40	.19370	.19190	8.9774
Stddev	.00131	.01	.00028	.00209	.0375
%RSD	.69746	.0558	.14294	1.0881	.41740

#1	.18748	10.40	.19390	.19337	8.9510
#2	.18933	10.40	.19351	.19042	9.0039

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18886	.18019	.18006	.17726	.18056
Stddev	.00015	.00026	.00043	.00108	.00064
%RSD	.07887	.14488	.23845	.61008	.35628

#1	.18897	.18037	.17976	.17803	.18010
#2	.18876	.18000	.18037	.17650	.18101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441765/2-A Acquired: 10/26/2018 23:10:46 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19613**
 Stddev .00050
 %RSD .25655

#1 **.19578**
 #2 **.19649**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2696.6	1490.1	46408.	3507.7
Stddev	1.9	1.8	119.	14.3
%RSD	.06953	.12079	.25721	.40688

#1	2698.0	1491.4	46492.	3517.8
#2	2695.3	1488.9	46323.	3497.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.377%	89.657%	97.197%	94.889%
Range				

Sample Name: 480-143751-A-1-A Acquired: 10/26/2018 23:14:27 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.01007	-.00187	.66351	.15665
Stddev	.00011	.01031	.00086	.00215	.00031
%RSD	44.093	102.36	46.051	.32476	.19767

#1	-.00034	.01736	-.00248	.66503	.15687
#2	-.00018	.00278	-.00126	.66198	.15643

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	95.109	.00017	.0147	-.00033
Stddev	.00003	.178	.00003	.0039	.00020
%RSD	236.84	.18700	20.304	26.21	62.359

#1	-.00001	94.983	.00014	.0174	-.00018
#2	.00003	95.235	.00019	.0120	-.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.00019	1.1426	2.5041	.01499
Stddev	.00031	.00021	.0025	.0177	.00033
%RSD	88.393	109.60	.21865	.70541	2.1915

#1	.00056	-.00034	1.1444	2.4916	.01522
#2	.00013	-.00004	1.1409	2.5166	.01476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-A Acquired: 10/26/2018 23:14:27 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.192	.01977	.00540	58.957	.00030
Stddev	.038	.00005	.00005	.045	.00058
%RSD	.06704	.23132	.92837	.07599	196.30

#1	57.219	.01974	.00543	58.925	.00071
#2	57.164	.01980	.00536	58.988	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	23.68	-.00166	-.00566	7.8234
Stddev	.00237	.09	.00149	.00205	.0432
%RSD	606.37	.3639	89.634	36.271	.55266

#1	-.00206	23.74	-.00271	-.00421	7.7929
#2	.00128	23.62	-.00061	-.00711	7.8540

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	1.5589	.00004	-.00024	-.00021
Stddev	.00109	.0005	.00003	.00112	.00051
%RSD	286.63	.03050	61.444	468.73	237.76

#1	-.00116	1.5586	.00006	-.00103	.00015
#2	.00039	1.5593	.00002	.00055	-.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-A Acquired: 10/26/2018 23:14:27 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00178**
 Stddev .00020
 %RSD 11.022

#1 **.00164**
 #2 **.00192**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2506.4	1418.8	44767.	3424.7
Stddev	.8	.5	163.	3.9
%RSD	.03358	.03477	.36448	.11504

#1	2506.9	1418.5	44652.	3421.9
#2	2505.8	1419.2	44882.	3427.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.717%	85.364%	93.761%	92.644%
Range				

Sample Name: 480-143751-A-1-Asd@5 Acquired: 10/26/2018 23:18:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.01084	-.00097	.12675	.03096
Stddev	.00034	.00591	.00182	.00000	.00001
%RSD	1411.4	54.547	187.24	.00263	.02798

#1	-.00026	-.00666	-.00226	.12675	.03096
#2	.00022	-.01502	.00031	.12675	.03095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	18.904	-.00002	-.0021	-.00015
Stddev	.00002	.055	.00004	.0094	.00014
%RSD	277.04	.28974	217.94	455.2	89.052

#1	-.00002	18.865	.00001	-.0087	-.00006
#2	.00001	18.943	-.00005	.0046	-.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00033	.22683	.48283	.00271
Stddev	.00005	.00001	.00195	.00066	.00095
%RSD	220.27	3.3516	.86041	.13623	34.958

#1	.00001	.00033	.22545	.48237	.00338
#2	-.00006	.00032	.22821	.48330	.00204

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-Asd@5 Acquired: 10/26/2018 23:18:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.154	.00381	.00105	10.558	.00016
Stddev	.034	.00001	.00004	.060	.00014
%RSD	.30179	.20360	4.1296	.56909	84.335

#1	11.177	.00381	.00108	10.515	.00006
#2	11.130	.00382	.00102	10.600	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00109	4.492	-.00206	-.00635	1.5088
Stddev	.00028	.010	.00048	.00073	.0133
%RSD	25.717	.2320	23.287	11.477	.88176

#1	-.00089	4.499	-.00172	-.00583	1.4994
#2	-.00129	4.485	-.00239	-.00686	1.5182

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.30576	.00006	-.00073	-.00003
Stddev	.00042	.00076	.00002	.00161	.00013
%RSD	683.34	.24922	35.430	221.55	399.31

#1	.00024	.30522	.00008	-.00187	.00006
#2	-.00036	.30630	.00005	.00041	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-Asd@5 Acquired: 10/26/2018 23:18:13 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00090**
 Stddev .00033
 %RSD 36.706

#1 **.00113**
 #2 **.00067**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2696.0	1479.3	46283.	3457.6
Stddev	3.1	2.6	11.	11.7
%RSD	.11528	.17242	.02372	.33890

#1	2693.8	1477.5	46275.	3465.9
#2	2698.2	1481.1	46290.	3449.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.354%	89.002%	96.935%	93.535%
Range				

Sample Name: 480-143751-A-1-Apds Acquired: 10/26/2018 23:22:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05009	9.4904	.21038	.86544	.34945
Stddev	.00016	.0175	.00019	.00087	.00064
%RSD	.30965	.18403	.08800	.10073	.18330

#1	.05020	9.4780	.21051	.86606	.34991
#2	.04998	9.5027	.21025	.86483	.34900

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18748	101.61	.21894	.0089	.19196
Stddev	.00029	.11	.00018	.0270	.00011
%RSD	.15604	.10494	.08449	302.2	.05679

#1	.18727	101.53	.21881	.0280	.19204
#2	.18769	101.68	.21907	-.0102	.19189

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18708	.18819	9.9677	12.052	.20369
Stddev	.00061	.00038	.0058	.032	.00063
%RSD	.32675	.20251	.05781	.26944	.30893

#1	.18751	.18846	9.9636	12.029	.20324
#2	.18665	.18792	9.9717	12.075	.20413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-Apds Acquired: 10/26/2018 23:22:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	65.084	.20118	.20074	66.411	.18989
Stddev	.003	.00010	.00007	.186	.00023
%RSD	.00474	.05215	.03243	.28058	.11979

#1	65.086	.20110	.20078	66.279	.19005
#2	65.082	.20125	.20069	66.543	.18973

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20074	34.48	.20744	.20274	16.954
Stddev	.00024	.10	.00063	.00198	.067
%RSD	.11768	.2823	.30433	.97846	.39272

#1	.20091	34.41	.20699	.20134	16.907
#2	.20058	34.54	.20789	.20414	17.001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20823	1.6970	.18725	.18503	.18714
Stddev	.00144	.0010	.00044	.00028	.00061
%RSD	.69122	.05864	.23694	.15063	.32357

#1	.20721	1.6977	.18756	.18483	.18757
#2	.20925	1.6963	.18693	.18522	.18671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-Apds Acquired: 10/26/2018 23:22:02 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19686**
 Stddev .00153
 %RSD .77955

#1 **.19794**
 #2 **.19577**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2470.6	1415.2	44733.	3435.9
Stddev	2.3	4.7	189.	1.0
%RSD	.09445	.33053	.42241	.02801

#1	2472.3	1418.5	44600.	3436.6
#2	2469.0	1411.9	44867.	3435.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.467%	85.147%	93.691%	92.948%
Range				

Sample Name: 480-143751-A-1-B MS Acquired: 10/26/2018 23:25:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04874	9.4802	.20345	.87289	.35720
Stddev	.00066	.0367	.00092	.00018	.00021
%RSD	1.3642	.38757	.45367	.02050	.06014

#1	.04921	9.5062	.20279	.87302	.35704
#2	.04827	9.4542	.20410	.87277	.35735

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18875	104.44	.21506	.0203	.19092
Stddev	.00077	.26	.00031	.0283	.00041
%RSD	.40879	.25002	.14635	139.4	.21254

#1	.18820	104.26	.21484	.0403	.19120
#2	.18929	104.63	.21528	.0003	.19063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18880	.18913	10.072	12.122	.20347
Stddev	.00008	.00061	.009	.053	.00033
%RSD	.04055	.32017	.09344	.43452	.15995

#1	.18886	.18870	10.079	12.160	.20370
#2	.18875	.18956	10.065	12.085	.20324

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-B MS Acquired: 10/26/2018 23:25:42 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	67.288	.20326	.20056	69.562	.19117
Stddev	.077	.00008	.00005	.221	.00013
%RSD	.11373	.03770	.02307	.31727	.06937

#1	67.342	.20321	.20060	69.718	.19108
#2	67.234	.20332	.20053	69.406	.19126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19898	34.55	.20641	.20197	17.107
Stddev	.00002	.05	.00114	.00574	.001
%RSD	.01141	.1499	.55362	2.8414	.00869

#1	.19896	34.51	.20722	.19791	17.108
#2	.19899	34.59	.20561	.20602	17.105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20121	1.7952	.18766	.18538	.19014
Stddev	.00155	.0052	.00036	.00048	.00071
%RSD	.76852	.28825	.19050	.26120	.37251

#1	.20012	1.7989	.18740	.18572	.18963
#2	.20231	1.7916	.18791	.18503	.19064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-B MS Acquired: 10/26/2018 23:25:42 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19771**
 Stddev .00014
 %RSD .07112

#1 **.19761**
 #2 **.19781**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2454.9	1426.3	44167.	3448.2
Stddev	.6	1.2	67.	5.8
%RSD	.02597	.08646	.15212	.16893

#1	2455.4	1427.2	44215.	3452.4
#2	2454.5	1425.4	44120.	3444.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.918%	85.815%	92.504%	93.282%
Range				

Sample Name: 480-143751-A-1-C MSD Acquired: 10/26/2018 23:29:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04810	9.3805	.20557	.87540	.35424
Stddev	.00060	.0214	.00066	.00206	.00009
%RSD	1.2389	.22766	.32175	.23522	.02651

#1	.04852	9.3956	.20510	.87686	.35431
#2	.04768	9.3654	.20604	.87394	.35418

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18835	104.24	.21541	.0022	.19086
Stddev	.00098	.33	.00086	.0065	.00073
%RSD	.52273	.32062	.39995	297.5	.38130

#1	.18765	104.00	.21602	-.0024	.19137
#2	.18904	104.48	.21480	.0068	.19034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18801	.18890	10.041	12.091	.20249
Stddev	.00002	.00026	.026	.072	.00080
%RSD	.00811	.13670	.26362	.59566	.39573

#1	.18800	.18909	10.022	12.040	.20192
#2	.18802	.18872	10.059	12.142	.20306

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-C MSD Acquired: 10/26/2018 23:29:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	67.333	.20296	.20030	68.916	.19009
Stddev	.000	.00006	.00044	.288	.00025
%RSD	.00011	.03038	.21793	.41783	.13325

#1	67.333	.20301	.20061	68.712	.19027
#2	67.333	.20292	.19999	69.119	.18991

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19951	34.62	.20524	.20014	17.067
Stddev	.00049	.13	.00178	.00140	.061
%RSD	.24510	.3699	.86655	.69800	.35866

#1	.19986	34.71	.20650	.20113	17.024
#2	.19916	34.52	.20399	.19915	17.110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20136	1.7851	.18822	.18699	.18713
Stddev	.00019	.0030	.00039	.00322	.00006
%RSD	.09465	.16662	.20752	1.7223	.02997

#1	.20150	1.7830	.18850	.18927	.18717
#2	.20123	1.7872	.18795	.18472	.18709

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143751-A-1-C MSD Acquired: 10/26/2018 23:29:21 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19565**
 Stddev .00151
 %RSD .76993

#1 **.19458**
 #2 **.19671**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2457.4	1426.4	44287.	3463.5
Stddev	.5	1.4	29.	17.3
%RSD	.01932	.09817	.06611	.49923

#1	2457.0	1425.4	44266.	3475.7
#2	2457.7	1427.4	44307.	3451.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.003%	85.822%	92.755%	93.694%
Range				

Sample Name: 480-143755-C-1-A Acquired: 10/26/2018 23:33:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	.03608	.00219	.25520	.17281
Stddev	.00043	.00760	.00013	.00062	.00040
%RSD	157.59	21.068	5.8934	.24243	.23029

#1	-.00058	.03071	.00228	.25476	.17310
#2	.00003	.04146	.00210	.25563	.17253

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	116.26	.00021	.0064	-.00021
Stddev	.00012	.20	.00000	.0268	.00017
%RSD	314.41	.17457	.03165	420.3	79.776

#1	-.00005	116.11	.00021	.0253	-.00009
#2	.00012	116.40	.00021	-.0126	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00056	-.00003	2.0888	2.8390	.01719
Stddev	.00025	.00019	.0037	.0017	.00031
%RSD	44.104	595.76	.17935	.06059	1.8123

#1	.00074	-.00017	2.0915	2.8378	.01697
#2	.00039	.00010	2.0862	2.8402	.01741

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143755-C-1-A Acquired: 10/26/2018 23:33:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	69.247	.03933	.00677	41.059	.00244
Stddev	.132	.00005	.00006	.067	.00009
%RSD	.19009	.11592	.92322	.16271	3.6084

#1	69.340	.03930	.00681	41.106	.00250
#2	69.154	.03936	.00672	41.011	.00237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	34.50	-.00494	-.00399	8.9023
Stddev	.00088	.11	.00223	.00255	.0307
%RSD	137.31	.3071	45.258	64.078	.34465

#1	-.00002	34.57	-.00652	-.00579	8.9240
#2	-.00126	34.42	-.00336	-.00218	8.8806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.50709	-.00005	.00029	-.00030
Stddev	.00009	.00112	.00001	.00189	.00032
%RSD	99.391	.22080	25.458	646.14	108.60

#1	.00015	.50788	-.00006	.00163	-.00007
#2	.00003	.50630	-.00004	-.00105	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143755-C-1-A Acquired: 10/26/2018 23:33:01 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00106**
 Stddev .00013
 %RSD 12.189

#1 **.00097**
 #2 **.00115**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2484.3	1420.0	44465.	3461.8
Stddev	2.2	2.1	97.	1.8
%RSD	.08923	.14748	.21820	.05165

#1	2485.9	1421.4	44396.	3460.5
#2	2482.8	1418.5	44534.	3463.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.947%	85.433%	93.128%	93.649%
Range				

Sample Name: 480-143755-A-2-A Acquired: 10/26/2018 23:36:47 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00943	.00002	1.0270	.26088
Stddev	.00000	.00592	.00042	.0016	.00033
%RSD	2.4116	62.785	2342.0	.15498	.12789

#1	-.00014	.00525	.00032	1.0281	.26065
#2	-.00013	.01362	-.00028	1.0259	.26112

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	124.91	.00017	.0171	-.00022
Stddev	.00004	.09	.00004	.0146	.00008
%RSD	70.863	.07534	24.427	85.28	33.372

#1	.00003	124.98	.00020	.0068	-.00017
#2	.00009	124.85	.00014	.0274	-.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.00050	1.7688	4.0016	.02148
Stddev	.00028	.00017	.0097	.0320	.00028
%RSD	32.949	35.161	.54653	.79875	1.3185

#1	.00104	.00062	1.7756	4.0242	.02128
#2	.00065	.00037	1.7619	3.9790	.02168

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143755-A-2-A Acquired: 10/26/2018 23:36:47 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	76.559	.04232	.00336	71.481	.00472
Stddev	.046	.00009	.00011	.236	.00021
%RSD	.06047	.21740	3.1812	.33085	4.5350

#1	76.526	.04239	.00328	71.648	.00457
#2	76.592	.04226	.00343	71.313	.00488

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	18.52	-.00290	-.00468	10.117
Stddev	.00038	.01	.00122	.00202	.047
%RSD	956.46	.0284	41.999	43.102	.46616

#1	-.00031	18.52	-.00204	-.00611	10.084
#2	.00023	18.52	-.00376	-.00326	10.151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00119	1.6026	-.00027	-.00041	-.00007
Stddev	.00073	.0030	.00008	.00125	.00017
%RSD	61.460	.18781	27.699	302.53	259.53

#1	.00171	1.6048	-.00022	-.00130	.00006
#2	.00067	1.6005	-.00033	.00047	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143755-A-2-A Acquired: 10/26/2018 23:36:47 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00144**
 Stddev .00035
 %RSD 24.398

#1 **.00119**
 #2 **.00169**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2455.2	1409.9	44327.	3457.0
Stddev	1.9	1.4	149.	10.2
%RSD	.07758	.10114	.33602	.29562

#1	2453.9	1408.9	44432.	3464.2
#2	2456.6	1410.9	44221.	3449.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.928%	84.830%	92.838%	93.518%
Range				

Sample Name: CCV-4954075 Acquired: 10/26/2018 23:40:35 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49172	23.454	.48949	.49948	.49363	.45531	23.963	.52631
Stddev	.00126	.078	.00340	.00107	.00224	.00044	.068	.00087
%RSD	.25688	.33444	.69492	.21354	.45291	.09715	.28542	.16527
#1	.49083	23.510	.49190	.50023	.49205	.45499	23.915	.52693
#2	.49262	23.399	.48709	.49872	.49521	.45562	24.011	.52570

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0100	.48550	.48147	.48695	22.585	23.538	.46236	23.741
Stddev	.0003	.00040	.00010	.00045	.067	.029	.00076	.040
%RSD	2.512	.08157	.02168	.09297	.29833	.12165	.16426	.16991
#1	.0098	.48578	.48154	.48663	22.538	23.518	.46290	23.713
#2	.0102	.48522	.48140	.48727	22.633	23.559	.46182	23.770

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48437	.49864	23.060	.46220	.49004	26.98	.51143	.49389
Stddev	.00040	.00112	.032	.00007	.00066	.05	.00116	.00424
%RSD	.08326	.22419	.13899	.01571	.13515	.1969	.22774	.85802
#1	.48409	.49943	23.083	.46215	.48957	27.02	.51061	.49689
#2	.48466	.49785	23.038	.46225	.49051	26.95	.51225	.49090

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/26/2018 23:40:35 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.053	.50180	.48207	.47864	.45574	.47818	.48144
Stddev	.204	.00030	.00003	.00083	.00179	.00305	.00033
%RSD	.84930	.05973	.00617	.17435	.39264	.63797	.06900

#1	23.908	.50201	.48209	.47805	.45701	.47603	.48168
#2	24.197	.50159	.48205	.47923	.45448	.48034	.48121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2618.9	1468.9	45628.	3478.1
Stddev	.7	3.1	144.	8.9
%RSD	.02743	.21338	.31644	.25507

#1	2619.4	1466.7	45730.	3484.4
#2	2618.4	1471.2	45525.	3471.8

Sample Name: CCB-4957862 Acquired: 10/26/2018 23:44:19 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.01097	.00067	.00098	.00003	.00003	-.00097	-.00002
Stddev	.00027	.01924	.00117	.00016	.00000	.00002	.00098	.00009
%RSD	427.25	175.29	174.18	16.129	16.515	59.843	100.41	404.60

#1	-.00025	-.00263	.00150	.00110	.00002	.00004	-.00028	-.00009
#2	.00013	.02458	-.00016	.00087	.00003	.00002	-.00167	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0117	-.00012	-.00013	-.00039	.00140	.03517	.00011	.00144
Stddev	.0076	.00020	.00021	.00012	.00156	.01911	.00036	.00061
%RSD	64.76	171.20	162.43	30.183	111.27	54.328	333.91	42.414

#1	.0171	.00003	.00002	-.00048	.00030	.02166	.00036	.00187
#2	.0064	-.00026	-.00027	-.00031	.00250	.04869	-.00015	.00101

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00087	.09881	-.00004	.00017	.0140	-.00051	.00036
Stddev	.00000	.00002	.00545	.00010	.00053	.0014	.00052	.00245
%RSD	4.8509	1.7921	5.5116	261.01	316.47	9.788	101.99	682.70

#1	.00001	.00086	.09495	.00003	-.00021	.0131	-.00014	.00209
#2	.00001	.00088	.10266	-.00011	.00054	.0150	-.00087	-.00138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/26/2018 23:44:19 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.00045	.00004	.00009	-.00052	.00004	.00063
Stddev	.02039	.00022	.00000	.00016	.00118	.00045	.00064
%RSD	4733.8	50.008	6.2379	166.44	226.48	1272.9	101.58

#1	-.01485	.00029	.00004	-.00002	.00031	-.00029	.00108
#2	.01399	.00061	.00004	.00021	-.00135	.00036	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2788.1	1514.0	47298.	3504.2
Stddev	2.7	2.3	23.	14.2
%RSD	.09750	.15176	.04967	.40569

#1	2786.2	1512.4	47281.	3514.3
#2	2790.1	1515.6	47314.	3494.1

Sample Name: CCVL-4954076 Acquired: 10/26/2018 23:48:12 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00562	.19023	.01685	.02173	.00206	.00190	.50280	.00205
Stddev	.00073	.00587	.00009	.00005	.00001	.00001	.00133	.00012
%RSD	12.941	3.0855	.55281	.20729	.72152	.44885	.26534	5.7194

#1	.00511	.19438	.01679	.02176	.00205	.00190	.50186	.00197
#2	.00613	.18608	.01692	.02169	.00207	.00191	.50375	.00214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059	.00386	.00397	.00922	.04601	.46299	.02782	.20178
Stddev	.0063	.00006	.00016	.00030	.00051	.00700	.00011	.00134
%RSD	107.4	1.5992	4.0165	3.2596	1.1171	1.5113	.39953	.66353

#1	.0104	.00381	.00385	.00944	.04637	.46794	.02774	.20083
#2	.0014	.00390	.00408	.00901	.04565	.45805	.02790	.20272

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00271	.00982	.97329	.00943	.01008	.2309	.01762	.02603
Stddev	.00003	.00016	.00687	.00006	.00040	.0019	.00099	.00049
%RSD	1.0444	1.6750	.70538	.67041	4.0117	.8127	5.6377	1.8747

#1	.00273	.00971	.97815	.00938	.00979	.2323	.01692	.02568
#2	.00269	.00994	.96844	.00947	.01037	.2296	.01832	.02637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/26/2018 23:48:12 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44208	.00985	.00469	.00442	.01762	.00487	.01118
Stddev	.01201	.00132	.00001	.00019	.00064	.00011	.00039
%RSD	2.7177	13.417	.28864	4.3488	3.6196	2.3614	3.4616

#1	.43358	.01079	.00468	.00429	.01807	.00479	.01145
#2	.45057	.00892	.00470	.00456	.01717	.00495	.01091

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2763.7	1503.9	47016.	3509.3
Stddev	1.1	3.0	25.	7.8
%RSD	.04115	.19735	.05287	.22105

#1	2762.9	1501.8	47034.	3503.8
#2	2764.5	1506.0	46999.	3514.8

Sample Name: 480-143756-D-1-A Acquired: 10/26/2018 23:52:03 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.01370	.00356	.26386	.18302
Stddev	.00049	.00564	.00076	.00054	.00022
%RSD	116.90	41.189	21.464	.20494	.11783

#1	-.00007	.01769	.00302	.26348	.18317
#2	-.00077	.00971	.00410	.26425	.18287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	121.40	.00009	.0145	-.00028
Stddev	.00008	.18	.00004	.0226	.00006
%RSD	24407.	.15127	45.557	155.8	22.239

#1	.00005	121.27	.00006	.0304	-.00024
#2	-.00005	121.53	.00012	-.0015	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	-.00039	2.1660	2.9550	.01719
Stddev	.00015	.00023	.0120	.0568	.00052
%RSD	62.136	59.329	.55221	1.9219	3.0444

#1	.00014	-.00023	2.1575	2.9148	.01682
#2	.00035	-.00056	2.1744	2.9952	.01756

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143756-D-1-A Acquired: 10/26/2018 23:52:03 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	72.595	.03914	.00664	43.836	.00253
Stddev	.118	.00003	.00004	.199	.00010
%RSD	.16190	.06393	.63083	.45509	3.7796

#1	72.678	.03916	.00667	43.695	.00260
#2	72.511	.03912	.00661	43.977	.00246

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	35.90	-.00272	-.00596	9.2847
Stddev	.00100	.05	.00137	.00549	.0072
%RSD	1221.0	.1357	50.172	92.132	.07784

#1	-.00062	35.86	-.00369	-.00208	9.2898
#2	.00079	35.93	-.00176	-.00984	9.2795

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.54270	-.00005	-.00056	-.00051
Stddev	.00024	.00331	.00008	.00058	.00038
%RSD	41.524	.61043	159.76	102.09	74.803

#1	.00040	.54036	.00001	-.00016	-.00024
#2	.00074	.54505	-.00011	-.00097	-.00078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143756-D-1-A Acquired: 10/26/2018 23:52:03 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00201**
 Stddev .00027
 %RSD 13.291

#1 **.00182**
 #2 **.00219**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2487.4	1432.5	44058.	3432.9
Stddev	3.4	5.4	89.	3.7
%RSD	.13530	.37494	.20224	.10688

#1	2489.8	1436.3	43995.	3435.5
#2	2485.0	1428.7	44121.	3430.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.055%	86.190%	92.275%	92.867%
Range				

Sample Name: 480-143756-D-2-A Acquired: 10/26/2018 23:55:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.00576	-.00034	.23212	.16784
Stddev	.00006	.00450	.00175	.00037	.00046
%RSD	15.103	78.117	517.09	.15731	.27229

#1	-.00045	.00895	.00090	.23238	.16816
#2	-.00036	.00258	-.00158	.23186	.16752

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	109.58	.00020	.0054	.00108
Stddev	.00007	.21	.00007	.0217	.00003
%RSD	76.037	.18898	34.169	400.7	3.1915

#1	.00004	109.43	.00025	-.0099	.00106
#2	.00014	109.73	.00015	.0208	.00111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00044	.03106	2.2856	.01374
Stddev	.00029	.00045	.00030	.0092	.00014
%RSD	74.305	102.56	.97040	.40233	1.0458

#1	.00059	.00075	.03084	2.2921	.01364
#2	.00018	.00012	.03127	2.2791	.01385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143756-D-2-A Acquired: 10/26/2018 23:55:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	61.235	.01273	.00429	25.068	.00510
Stddev	.209	.00004	.00009	.062	.00007
%RSD	.34162	.28100	2.0091	.24606	1.3203

#1	61.383	.01276	.00436	25.111	.00514
#2	61.087	.01271	.00423	25.024	.00505

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	37.17	-.00321	-.00604	6.4335
Stddev	.00109	.07	.00039	.00079	.0106
%RSD	184.27	.1925	12.167	13.108	.16525

#1	-.00136	37.22	-.00293	-.00548	6.4259
#2	.00018	37.12	-.00348	-.00660	6.4410

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.66006	-.00003	-.00047	-.00011
Stddev	.00019	.00047	.00017	.00136	.00005
%RSD	35.175	.07085	670.63	286.84	41.007

#1	-.00067	.66039	.00009	.00049	-.00008
#2	-.00040	.65973	-.00014	-.00144	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143756-D-2-A Acquired: 10/26/2018 23:55:50 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00579**
 Stddev .00037
 %RSD 6.4580

#1 **.00605**
 #2 **.00552**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2521.3	1444.1	44467.	3435.8
Stddev	.8	1.7	88.	6.0
%RSD	.03329	.11767	.19683	.17579

#1	2521.9	1442.9	44405.	3440.0
#2	2520.7	1445.3	44529.	3431.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.241%	86.885%	93.132%	92.945%
Range				

Sample Name: 480-143781-C-1-A Acquired: 10/26/2018 23:59:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.01164	.00066	.01426	.02451
Stddev	.00004	.00368	.00185	.00015	.00001
%RSD	23.560	31.600	278.47	1.0612	.02180

#1	-.00022	.00904	.00197	.01415	.02450
#2	-.00015	.01425	-.00064	.01437	.02451

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	20.755	.00004	-.0055	-.00040
Stddev	.00003	.078	.00006	.0209	.00004
%RSD	42.403	.37772	157.42	382.4	9.6960

#1	.00009	20.700	.00008	-.0202	-.00037
#2	.00005	20.811	-.00000	.0093	-.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	-.00003	1.5619	5.9983	.00618
Stddev	.00024	.00017	.0077	.0583	.00089
%RSD	102.87	563.88	.49291	.97227	14.464

#1	.00006	-.00015	1.5565	5.9570	.00555
#2	.00040	.00009	1.5673	6.0395	.00682

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143781-C-1-A Acquired: 10/26/2018 23:59:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.9503	.10910	.00161	13.388	-.00032
Stddev	.0102	.00009	.00008	.057	.00002
%RSD	.14725	.08110	4.6891	.42872	5.0771

#1	6.9431	.10904	.00166	13.348	-.00033
#2	6.9575	.10916	.00156	13.429	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00140	3.590	-.00244	.00168	17.109
Stddev	.00012	.006	.00013	.00056	.036
%RSD	8.5626	.1677	5.1218	33.456	.21039

#1	-.00149	3.586	-.00253	.00208	17.083
#2	-.00132	3.594	-.00235	.00129	17.134

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.05353	.00012	.00027	.00036
Stddev	.00040	.00013	.00015	.00026	.00002
%RSD	654.65	.24567	126.86	95.656	4.1753

#1	-.00022	.05344	.00022	.00045	.00035
#2	.00034	.05362	.00001	.00009	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143781-C-1-A Acquired: 10/26/2018 23:59:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00212**
 Stddev .00021
 %RSD 9.7661

#1 **.00227**
 #2 **.00198**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2698.6	1494.1	46137.	3518.5
Stddev	.9	2.8	17.	15.3
%RSD	.03434	.18910	.03696	.43391

#1	2697.9	1496.1	46125.	3529.3
#2	2699.2	1492.1	46149.	3507.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.445%	89.894%	96.630%	95.182%
Range				

Sample Name: 480-143782-A-1-A Acquired: 10/27/2018 0:03:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.00209	.00217	.31597	.08396
Stddev	.00049	.01995	.00428	.00026	.00005
%RSD	105.03	953.95	197.34	.08305	.06524

#1	-.00012	.01620	-.00086	.31578	.08400
#2	-.00081	-.01202	.00519	.31615	.08392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	49.808	.00006	.0043	-.00001
Stddev	.00004	.117	.00005	.0074	.00024
%RSD	77.867	.23440	78.224	173.5	1852.6

#1	.00008	49.725	.00003	.0095	.00016
#2	.00002	49.890	.00010	-.0010	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.02076	.89835	1.5730	.00915
Stddev	.00009	.00024	.00293	.0028	.00033
%RSD	34.861	1.1321	.32581	.17979	3.6192

#1	.00031	.02060	.90042	1.5750	.00892
#2	.00019	.02093	.89628	1.5710	.00939

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-1-A Acquired: 10/27/2018 0:03:26 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	37.495	.01030	.01995	40.499	-.00021
Stddev	.026	.00005	.00034	.089	.00046
%RSD	.06815	.53363	1.7213	.21863	217.30

#1	37.513	.01026	.02019	40.437	-.00053
#2	37.477	.01034	.01971	40.562	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00157	15.22	-.00209	-.00354	8.9139
Stddev	.00038	.07	.00285	.00777	.0046
%RSD	24.005	.4635	136.41	219.36	.05189

#1	-.00130	15.27	-.00411	-.00903	8.9107
#2	-.00184	15.17	-.00007	.00195	8.9172

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	1.0550	-.00004	-.00010	-.00006
Stddev	.00011	.0009	.00005	.00077	.00014
%RSD	18.915	.08509	111.39	809.71	213.02

#1	.00052	1.0543	-.00008	-.00064	.00003
#2	.00068	1.0556	-.00001	.00045	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-1-A Acquired: 10/27/2018 0:03:26 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00185**
 Stddev .00050
 %RSD 26.822

#1 **.00221**
 #2 **.00150**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2572.9	1453.6	45317.	3489.7
Stddev	.0	4.3	101.	9.8
%RSD	.00053	.29595	.22371	.28116

#1	2572.8	1450.6	45246.	3496.7
#2	2572.9	1456.7	45389.	3482.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.045%	87.459%	94.914%	94.404%
Range				

Sample Name: 480-143782-A-2-A Acquired: 10/27/2018 0:07:14 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.01874	-.00182	.29883	.13450
Stddev	.00027	.01027	.00258	.00033	.00008
%RSD	81.595	54.807	141.91	.10930	.06048

#1	-.00052	.02600	-.00365	.29906	.13456
#2	-.00014	.01148	.00001	.29859	.13444

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	52.202	.00009	.0100	-.00020
Stddev	.00003	.084	.00005	.0112	.00009
%RSD	168.00	.16164	50.968	112.1	46.200

#1	-.00000	52.261	.00006	.0021	-.00014
#2	.00004	52.142	.00012	.0179	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00012	.83404	1.8204	.01065
Stddev	.00021	.00001	.00369	.0153	.00088
%RSD	76.299	4.7850	.44191	.83898	8.2478

#1	.00041	-.00012	.83665	1.8096	.01127
#2	.00012	-.00012	.83143	1.8312	.01003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-2-A Acquired: 10/27/2018 0:07:14 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	35.647	.02399	.01599	32.682	-.00024
Stddev	.051	.00005	.00016	.093	.00030
%RSD	.14233	.20855	.97664	.28527	125.98

#1	35.683	.02395	.01610	32.748	-.00003
#2	35.611	.02402	.01588	32.617	-.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00142	9.063	-.00266	-.00522	10.302
Stddev	.00091	.009	.00091	.00206	.010
%RSD	64.000	.1023	34.101	39.557	.09249

#1	-.00207	9.070	-.00330	-.00376	10.295
#2	-.00078	9.057	-.00202	-.00668	10.309

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00082	1.0744	-.00048	-.00010	-.00015
Stddev	.00014	.0021	.00044	.00059	.00032
%RSD	16.629	.19171	91.509	566.28	206.15

#1	.00072	1.0759	-.00017	-.00052	-.00038
#2	.00092	1.0730	-.00079	.00031	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-2-A Acquired: 10/27/2018 0:07:14 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00094**
 Stddev .00083
 %RSD 87.848

#1 **.00152**
 #2 **.00036**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2582.8	1452.1	45317.	3476.0
Stddev	2.3	1.6	50.	16.0
%RSD	.08923	.10898	.11024	.46100

#1	2581.2	1451.0	45282.	3464.6
#2	2584.4	1453.2	45352.	3487.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.393%	87.367%	94.913%	94.032%
Range				

Sample Name: 480-143782-A-3-A Acquired: 10/27/2018 0:11:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.20405	.00289	.09886	.17290
Stddev	.00008	.00105	.00148	.00003	.00017
%RSD	23.418	.51389	51.118	.03471	.09786

#1	-.00041	.20479	.00394	.09889	.17302
#2	-.00029	.20330	.00185	.09884	.17278

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	111.94	.00015	.0007	-.00043
Stddev	.00002	.72	.00009	.0299	.00006
%RSD	40.054	.64267	57.010	4087.	15.030

#1	.00003	111.43	.00009	-.0204	-.00048
#2	.00005	112.45	.00022	.0219	-.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00042	3.1289	3.0943	.00919
Stddev	.00028	.00019	.0183	.0303	.00004
%RSD	78.616	46.547	.58490	.98087	.39701

#1	.00054	.00028	3.1160	3.0728	.00917
#2	.00016	.00055	3.1419	3.1157	.00922

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-3-A Acquired: 10/27/2018 0:11:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.804	.04959	.00300	137.39	.00052
Stddev	.087	.00024	.00010	.69	.00055
%RSD	.15628	.49179	3.4188	.50504	104.67

#1	55.742	.04942	.00307	136.90	.00091
#2	55.866	.04976	.00293	137.88	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	16.67	-.00297	-.00639	8.9652
Stddev	.00048	.04	.00107	.00085	.0486
%RSD	58.312	.2259	36.112	13.312	.54247

#1	-.00115	16.70	-.00221	-.00579	8.9308
#2	-.00048	16.64	-.00373	-.00699	8.9996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.57074	.00663	-.00026	.00022
Stddev	.00014	.00180	.00008	.00061	.00012
%RSD	133.01	.31476	1.1716	234.68	56.565

#1	.00001	.56947	.00657	-.00069	.00031
#2	.00021	.57201	.00668	.00017	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-3-A Acquired: 10/27/2018 0:11:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00226**
Stddev .00031
%RSD 13.810

#1 **.00204**
#2 **.00248**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2451.1	1406.8	44115.	3396.4
Stddev	.2	.9	43.	24.5
%RSD	.00880	.06569	.09641	.72199

#1	2451.3	1406.1	44085.	3413.7
#2	2451.0	1407.4	44145.	3379.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.784%	84.641%	92.395%	91.879%
Range				

Sample Name: 480-143782-A-4-A Acquired: 10/27/2018 0:14:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.04581	.00190	.45555	.05731
Stddev	.00020	.00262	.00239	.00024	.00012
%RSD	671.80	5.7097	125.58	.05314	.21519

#1	-.00011	.04766	.00359	.45572	.05740
#2	.00017	.04396	.00021	.45538	.05723

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	36.794	.00012	.0160	-.00011
Stddev	.00000	.128	.00004	.0029	.00021
%RSD	2.4948	.34670	32.461	17.97	187.43

#1	.00004	36.704	.00015	.0181	-.00026
#2	.00004	36.884	.00009	.0140	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00646	.00062	.13229	1.5712	.00814
Stddev	.00012	.00010	.00443	.0031	.00024
%RSD	1.8933	16.809	3.3460	.19744	2.9533

#1	.00637	.00055	.12916	1.5690	.00797
#2	.00655	.00069	.13542	1.5734	.00831

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-4-A Acquired: 10/27/2018 0:14:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Na8183
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	818.326 { 41}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.461	.02213	.04453	48.207	52.096
Stddev	.021	.00001	.00008	.030	.144
%RSD	.08309	.05893	.19068	.06158	.27616

#1	25.446	.02214	.04447	48.186	51.994
#2	25.476	.02213	.04459	48.228	52.198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00102	.00221	15.03	-.00193	-.00493
Stddev	.00007	.00014	.01	.00037	.00154
%RSD	7.0582	6.3380	.0756	18.943	31.314

#1	.00107	.00211	15.04	-.00167	-.00603
#2	.00097	.00231	15.02	-.00219	-.00384

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.0341	.00045	.77213	.00110	.00031
Stddev	.0263	.00061	.00176	.00020	.00056
%RSD	.29130	134.82	.22755	18.276	177.80

#1	9.0155	.00088	.77089	.00125	.00071
#2	9.0527	.00002	.77338	.00096	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-4-A Acquired: 10/27/2018 0:14:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	-.00001	.00288
Stddev	.00030	.00024
%RSD	2030.4	8.2779

#1	-.00022	.00305
#2	.00019	.00271

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2593.8	1448.1	45646.	3468.4
Stddev	4.1	2.2	81.	6.8
%RSD	.15869	.14936	.17645	.19613

#1	2596.7	1446.5	45589.	3473.3
#2	2590.9	1449.6	45703.	3463.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.777%	87.124%	95.601%	93.828%
Range				

Sample Name: 480-143782-A-5-A Acquired: 10/27/2018 0:18:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00185	.00132	.53000	.02269
Stddev	.00059	.01095	.00131	.00074	.00000
%RSD	3968.7	591.70	98.852	.13922	.01910

#1	-.00043	-.00960	.00225	.53052	.02269
#2	.00040	.00589	.00040	.52948	.02269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	22.372	.00007	-.0007	-.00003
Stddev	.00002	.042	.00003	.0163	.00001
%RSD	21.328	.18642	44.708	2279.	44.656

#1	.00008	22.343	.00010	-.0122	-.00002
#2	.00006	22.402	.00005	.0108	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00026	.07266	1.3036	.00742
Stddev	.00005	.00021	.00136	.0022	.00092
%RSD	69.419	81.741	1.8720	.16811	12.423

#1	.00004	.00011	.07169	1.3051	.00677
#2	.00010	.00041	.07362	1.3020	.00807

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-5-A Acquired: 10/27/2018 0:18:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Na8183
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	818.326 { 41}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.072	.03968	.04418	48.837	52.792
Stddev	.032	.00001	.00018	.231	.460
%RSD	.17583	.01764	.40051	.47307	.87153

#1	18.095	.03969	.04430	49.000	53.118
#2	18.050	.03968	.04405	48.673	52.467

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00084	-.00031	19.26	-.00259	-.00321
Stddev	.00029	.00047	.01	.00084	.00099
%RSD	34.270	152.08	.0405	32.262	30.740

#1	.00063	.00002	19.25	-.00200	-.00252
#2	.00104	-.00064	19.26	-.00318	-.00391

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.4722	-.00001	.79963	-.00019	-.00043
Stddev	.0090	.00033	.00317	.00030	.00018
%RSD	.13854	4784.8	.39586	152.94	40.975

#1	6.4658	-.00024	.80187	-.00040	-.00056
#2	6.4785	.00022	.79740	.00002	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-5-A Acquired: 10/27/2018 0:18:35 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	-.00007	.00143
Stddev	.00029	.00005
%RSD	439.66	3.5632

#1	.00014	.00140
#2	-.00027	.00147

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2625.9	1476.0	45626.	3480.8
Stddev	1.1	.6	63.	15.3
%RSD	.04129	.03905	.13720	.44038

#1	2625.2	1476.4	45670.	3470.0
#2	2626.7	1475.6	45582.	3491.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.902%	88.808%	95.560%	94.163%
Range				

Sample Name: 480-143782-A-6-A Acquired: 10/27/2018 0:22:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	17.719	.02210	.10429	.14974
Stddev	.00037	.007	.00109	.00000	.00033
%RSD	58.421	.04028	4.9261	.00377	.21909

#1	-.00037	17.714	.02287	.10429	.14998
#2	-.00089	17.724	.02133	.10429	.14951

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00112	210.21	.00098	.0408	.01221
Stddev	.00005	.31	.00007	.0093	.00001
%RSD	4.2749	.14965	7.1036	22.73	.05083

#1	.00115	210.43	.00093	.0473	.01221
#2	.00108	209.99	.00103	.0342	.01221

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03093	.05867	31.231	10.071	.03722
Stddev	.00007	.00022	.003	.015	.00053
%RSD	.21474	.36747	.01013	.14996	1.4218

#1	.03098	.05852	31.233	10.082	.03684
#2	.03088	.05882	31.228	10.061	.03759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-6-A Acquired: 10/27/2018 0:22:23 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	95.226	.69509	.01050	103.00	.04660
Stddev	.122	.00073	.00018	.01	.00031
%RSD	.12820	.10536	1.6771	.01094	.67113

#1	95.313	.69561	.01038	102.99	.04682
#2	95.140	.69457	.01063	103.01	.04638

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05268	13.30	-.00709	-.00617	36.784
Stddev	.00080	.02	.00156	.00021	.065
%RSD	1.5238	.1569	21.958	3.3999	.17565

#1	.05325	13.28	-.00819	-.00632	36.830
#2	.05211	13.31	-.00599	-.00602	36.738

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00560	.26577	.32306	-.00039	.04336
Stddev	.00124	.00002	.00729	.00101	.00016
%RSD	22.096	.00666	2.2558	257.01	.36720

#1	.00472	.26578	.32821	.00032	.04348
#2	.00647	.26575	.31791	-.00111	.04325

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-6-A Acquired: 10/27/2018 0:22:23 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.13862**
 Stddev .00004
 %RSD .02921

#1 **.13865**
 #2 **.13859**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2361.8	1424.2	43903.	3490.9
Stddev	.7	1.4	70.	4.3
%RSD	.02789	.09589	.16010	.12202

#1	2362.3	1425.2	43853.	3487.9
#2	2361.4	1423.3	43952.	3493.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.659%	85.691%	91.951%	94.435%
Range				

Sample Name: CCV-4954075 Acquired: 10/27/2018 0:26:09 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49208	23.452	.49121	.49548	.49335	.45947	24.041	.52142
Stddev	.00026	.011	.00217	.00015	.00143	.00014	.055	.00018
%RSD	.05297	.04720	.44164	.03047	.29080	.03072	.22754	.03539
#1	.49190	23.460	.48968	.49559	.49436	.45937	24.080	.52129
#2	.49227	23.444	.49275	.49538	.49233	.45957	24.002	.52155

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0156	.48452	.48256	.48714	22.752	23.777	.46566	23.701
Stddev	.0144	.00075	.00179	.00011	.035	.040	.00122	.006
%RSD	92.24	.15379	.37020	.02211	.15248	.16710	.26295	.02463
#1	-.0257	.48505	.48129	.48722	22.776	23.749	.46479	23.696
#2	-.0054	.48400	.48382	.48706	22.727	23.806	.46653	23.705

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48498	.49819	23.230	.46436	.48802	26.71	.51148	.49221
Stddev	.00043	.00003	.023	.00056	.00217	.09	.00438	.00169
%RSD	.08827	.00511	.10074	.12155	.44422	.3290	.85697	.34338
#1	.48468	.49821	23.213	.46476	.48955	26.65	.50838	.49101
#2	.48528	.49818	23.246	.46396	.48649	26.77	.51458	.49340

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/27/2018 0:26:09 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.139	.49876	.48643	.48007	.45813	.47813	.47817
Stddev	.069	.00024	.00011	.00024	.00049	.00099	.00110
%RSD	.28464	.04793	.02255	.05076	.10766	.20616	.23090
#1	24.091	.49859	.48635	.48024	.45848	.47743	.47895
#2	24.188	.49893	.48651	.47990	.45778	.47883	.47739

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2619.6	1479.7	45808.	3464.0
Stddev	.6	2.3	65.	10.1
%RSD	.02399	.15236	.14229	.29203
#1	2619.2	1481.3	45762.	3456.8
#2	2620.1	1478.1	45854.	3471.1

Sample Name: CCB-4957862 Acquired: 10/27/2018 0:29:52 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00103	-.00035	.00046	.00001	.00006	.00123	-.00002
Stddev	.00034	.00375	.00120	.00008	.00001	.00006	.00386	.00005
%RSD	386.65	364.95	340.90	16.714	50.064	91.509	314.56	240.53

#1	-.00015	.00368	-.00120	.00051	.00001	.00002	-.00150	.00001
#2	.00032	-.00163	.00049	.00040	.00001	.00010	.00396	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	-.00017	.00005	.00016	-.00033	.01289	-.00043	-.00060
Stddev	.0156	.00005	.00004	.00008	.00168	.02326	.00010	.00193
%RSD	3621.	29.169	87.663	52.542	513.70	180.35	24.240	319.20

#1	.0106	-.00021	.00008	.00010	-.00152	-.00355	-.00036	.00076
#2	-.0114	-.00014	.00002	.00022	.00086	.02934	-.00051	-.00197

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00090	.08713	-.00018	.00047	.0066	-.00099	-.00259
Stddev	.00001	.00012	.00038	.00023	.00023	.0030	.00029	.00224
%RSD	34.334	13.467	.44062	125.30	48.451	45.11	29.517	86.455

#1	-.00002	.00098	.08686	-.00002	.00031	.0087	-.00078	-.00417
#2	-.00004	.00081	.08740	-.00034	.00063	.0045	-.00119	-.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 0:29:52 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00517	.00025	.00003	-0.00019	-0.00077	.00011	.00009
Stddev	.00634	.00021	.00002	.00000	.00026	.00004	.00019
%RSD	122.56	84.520	66.335	2.2716	33.980	36.716	208.36

#1	-0.00965	.00040	.00004	-0.00019	-0.00058	.00014	-0.00004
#2	-0.00069	.00010	.00002	-0.00019	-0.00095	.00008	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2782.3	1523.5	47413.	3508.1
Stddev	2.3	.3	6.	16.3
%RSD	.08224	.02240	.01293	.46493

#1	2780.7	1523.7	47417.	3496.6
#2	2783.9	1523.3	47409.	3519.6

Sample Name: CCVL-4954076 Acquired: 10/27/2018 0:33:45 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00532	.20981	.01502	.02093	.00205	.00193	.49822	.00215
Stddev	.00033	.00248	.00073	.00017	.00000	.00002	.00509	.00006
%RSD	6.2684	1.1827	4.8616	.83445	.02668	1.2827	1.0216	2.8173

#1	.00555	.20805	.01450	.02106	.00205	.00191	.50182	.00210
#2	.00508	.21156	.01553	.02081	.00205	.00194	.49462	.00219

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0164	.00368	.00389	.00958	.04515	.46710	.02738	.19798
Stddev	.0101	.00021	.00008	.00005	.00144	.03231	.00096	.00099
%RSD	61.62	5.7197	1.9631	.52672	3.1995	6.9179	3.4951	.49788

#1	-.0236	.00383	.00384	.00962	.04617	.44425	.02806	.19868
#2	-.0093	.00353	.00395	.00954	.04413	.48994	.02671	.19729

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00274	.00981	.96098	.00915	.00964	.2214	.01906	.02528
Stddev	.00011	.00007	.00020	.00040	.00017	.0008	.00122	.00020
%RSD	4.0743	.75651	.02110	4.3946	1.7693	.3418	6.4228	.78425

#1	.00282	.00987	.96112	.00887	.00976	.2209	.01993	.02542
#2	.00266	.00976	.96084	.00943	.00951	.2219	.01819	.02514

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/27/2018 0:33:45 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44538	.00929	.00478	.00474	.01829	.00461	.01109
Stddev	.01572	.00017	.00001	.00010	.00053	.00025	.00027
%RSD	3.5298	1.8028	.29248	2.0365	2.8821	5.4817	2.4360

#1	.43426	.00941	.00477	.00467	.01866	.00479	.01090
#2	.45649	.00917	.00479	.00480	.01791	.00443	.01128

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2778.7	1515.1	47381.	3522.0
Stddev	5.6	5.4	47.	5.4
%RSD	.20154	.35446	.10003	.15245

#1	2782.7	1518.9	47348.	3518.2
#2	2774.8	1511.3	47415.	3525.8

Sample Name: 480-143782-A-7-A Acquired: 10/27/2018 0:37:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.05444	-.00060	.03568	.11300
Stddev	.00003	.00052	.00243	.00032	.00001
%RSD	16.719	.94829	403.73	.89296	.01269

#1	-.00022	.05407	.00112	.03545	.11299
#2	-.00017	.05480	-.00232	.03590	.11301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	94.768	.00015	.0112	-.00016
Stddev	.00005	.402	.00006	.0257	.00007
%RSD	981.05	.42458	37.171	229.6	44.920

#1	-.00003	95.052	.00011	.0293	-.00022
#2	.00004	94.483	.00019	-.0070	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00056	.00056	2.0231	2.1072	.00405
Stddev	.00042	.00018	.0075	.0162	.00079
%RSD	76.205	32.583	.36886	.76851	19.476

#1	.00086	.00069	2.0284	2.1186	.00461
#2	.00026	.00043	2.0178	2.0957	.00349

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-7-A Acquired: 10/27/2018 0:37:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.647	.17615	.00017	63.080	-.00005
Stddev	.102	.00030	.00023	.255	.00019
%RSD	.21364	.17239	133.27	.40394	367.65

#1	47.719	.17637	.00033	63.261	.00008
#2	47.575	.17594	.00001	62.900	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.3415	-.00257	-.00585	7.3693
Stddev	.00149	.0039	.00074	.00048	.0390
%RSD	29565.	1.147	28.963	8.1996	.52902

#1	-.00105	.3443	-.00204	-.00551	7.3968
#2	.00106	.3387	-.00309	-.00619	7.3417

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.16441	.00095	.00030	.00160
Stddev	.00026	.00105	.00039	.00099	.00010
%RSD	152.00	.64158	41.321	328.16	6.4676

#1	-.00001	.16516	.00067	.00100	.00152
#2	.00036	.16366	.00123	-.00040	.00167

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-7-A Acquired: 10/27/2018 0:37:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00325**
 Stddev .00013
 %RSD 3.9946

#1 **.00316**
 #2 **.00334**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2506.9	1419.0	44643.	3456.3
Stddev	.3	.9	81.	7.0
%RSD	.01001	.06620	.18227	.20201

#1	2507.0	1419.6	44700.	3451.4
#2	2506.7	1418.3	44585.	3461.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.735%	85.375%	93.501%	93.501%
Range				

Sample Name: 480-143782-A-8-A Acquired: 10/27/2018 0:41:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.01331	-.00243	.03949	.11803
Stddev	.00038	.01990	.00228	.00000	.00044
%RSD	296.77	149.51	93.623	.00114	.37453

#1	.00014	.02738	-.00405	.03949	.11772
#2	-.00039	-.00076	-.00082	.03949	.11834

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	102.45	.00018	.0132	-.00041
Stddev	.00001	.26	.00005	.0103	.00011
%RSD	153.35	.25212	26.865	78.08	27.331

#1	-.00000	102.27	.00015	.0059	-.00048
#2	.00002	102.64	.00022	.0205	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	-.00001	3.6795	1.9610	.00709
Stddev	.00023	.00004	.0211	.0267	.00077
%RSD	93.825	372.42	.57246	1.3595	10.835

#1	.00008	-.00004	3.6646	1.9799	.00763
#2	.00041	.00002	3.6943	1.9422	.00654

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-8-A Acquired: 10/27/2018 0:41:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	45.526	.08331	.00129	56.666	-.00020
Stddev	.033	.00006	.00016	.227	.00011
%RSD	.07337	.07368	12.262	.39979	54.665

#1	45.502	.08335	.00118	56.506	-.00027
#2	45.549	.08327	.00140	56.826	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.2159	-.00490	-.00676	8.9416
Stddev	.00064	.0013	.00046	.00225	.0167
%RSD	815.84	.5976	9.4737	33.201	.18700

#1	-.00037	.2168	-.00522	-.00835	8.9298
#2	.00053	.2150	-.00457	-.00517	8.9534

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.19447	-.00021	-.00045	.00003
Stddev	.00019	.00059	.00013	.00003	.00000
%RSD	76.792	.30247	60.665	7.6193	7.5557

#1	.00012	.19406	-.00030	-.00047	.00003
#2	.00039	.19489	-.00012	-.00043	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143782-A-8-A Acquired: 10/27/2018 0:41:25 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00206**
 Stddev .00035
 %RSD 16.749

#1 **.00230**
 #2 **.00182**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2507.6	1436.5	44791.	3462.7
Stddev	.8	5.1	197.	13.0
%RSD	.03312	.35781	.44043	.37441

#1	2507.0	1432.8	44931.	3471.9
#2	2508.2	1440.1	44652.	3453.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.760%	86.427%	93.812%	93.673%
Range				

Sample Name: 480-143132-F-2-C Acquired: 10/27/2018 0:45:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	1.2602	.00057	.02032	.15009
Stddev	.00014	.0214	.00341	.00032	.00022
%RSD	30.655	1.6973	598.96	1.5662	.14813

#1	-.00054	1.2754	.00298	.02055	.14993
#2	-.00035	1.2451	-.00184	.02010	.15025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	119.01	.00037	-.0021	.00365
Stddev	.00001	.07	.00001	.0005	.00003
%RSD	10.657	.05919	1.9983	25.91	.92687

#1	.00010	118.96	.00037	-.0025	.00367
#2	.00009	119.06	.00036	-.0017	.00362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.82875	.00610	5.8514	2.0097	.00611
Stddev	.00083	.00004	.0051	.0205	.00030
%RSD	.09998	.73413	.08736	1.0188	4.8700

#1	.82934	.00607	5.8550	1.9952	.00633
#2	.82816	.00613	5.8478	2.0241	.00590

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143132-F-2-C Acquired: 10/27/2018 0:45:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	42.634	.31292	.00244	11.467	.04551
Stddev	.068	.00039	.00006	.028	.00017
%RSD	.15844	.12401	2.6163	.24690	.38342

#1	42.682	.31320	.00249	11.447	.04564
#2	42.586	.31265	.00240	11.487	.04539

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00143	F 98.22	-.00498	.00015	10.243
Stddev	.00079	.05	.00023	.00029	.030
%RSD	54.895	.0519	4.6536	192.31	.29228

#1	.00088	98.18	-.00514	.00036	10.222
#2	.00199	98.25	-.00481	-.00005	10.264

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.19261	.03399	.00077	.00709
Stddev	.00035	.00088	.00402	.00090	.00036
%RSD	104.13	.45542	11.835	117.93	5.1068

#1	.00009	.19199	.03114	.00013	.00734
#2	.00058	.19323	.03683	.00140	.00683

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143132-F-2-C Acquired: 10/27/2018 0:45:13 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00735**
 Stddev .00041
 %RSD 5.6089

#1 **.00764**
 #2 **.00705**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2550.9	1456.6	44999.	3457.7
Stddev	1.9	.5	148.	6.2
%RSD	.07478	.03506	.32992	.18053

#1	2549.6	1456.9	45104.	3462.1
#2	2552.3	1456.2	44894.	3453.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.278%	87.637%	94.247%	93.538%
Range				

Sample Name: 480-143132-F-3-C Acquired: 10/27/2018 0:48:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.06514	-.00005	.01760	.13815
Stddev	.00016	.00245	.00104	.00041	.00013
%RSD	111.43	3.7611	2074.4	2.3199	.09402

#1	-.00003	.06341	.00069	.01731	.13824
#2	-.00026	.06687	-.00079	.01789	.13806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	69.472	.00016	.0064	.00029
Stddev	.00004	.114	.00014	.0277	.00003
%RSD	621.98	.16420	88.422	431.0	9.1120

#1	-.00002	69.552	.00026	.0260	.00027
#2	.00003	69.391	.00006	-.0131	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03710	.00044	.27858	1.4453	.00516
Stddev	.00009	.00035	.00527	.0153	.00005
%RSD	.23537	78.182	1.8928	1.0615	.97584

#1	.03703	.00020	.28231	1.4345	.00520
#2	.03716	.00069	.27485	1.4562	.00512

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143132-F-3-C Acquired: 10/27/2018 0:48:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.112	.01865	.00087	10.702	.02258
Stddev	.023	.00003	.00025	.102	.00015
%RSD	.08980	.16880	28.926	.95403	.66507

#1	26.129	.01863	.00069	10.774	.02268
#2	26.096	.01868	.00105	10.630	.02247

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	24.19	-.00222	-.00309	7.8630
Stddev	.00067	.01	.00279	.00106	.0145
%RSD	96.806	.0339	125.54	34.195	.18419

#1	-.00117	24.20	-.00025	-.00234	7.8732
#2	-.00022	24.19	-.00419	-.00383	7.8528

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.13398	.00127	.00126	.00043
Stddev	.00012	.00157	.00016	.00131	.00010
%RSD	125.32	1.1739	12.623	103.63	22.043

#1	.00001	.13510	.00139	.00034	.00037
#2	.00018	.13287	.00116	.00219	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143132-F-3-C Acquired: 10/27/2018 0:48:59 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00231**
 Stddev .00057
 %RSD 24.506

#1 **.00271**
 #2 **.00191**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2610.1	1471.9	45603.	3477.6
Stddev	.0	.3	25.	11.6
%RSD	.00089	.02201	.05535	.33469

#1	2610.0	1472.1	45585.	3469.3
#2	2610.1	1471.7	45621.	3485.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.347%	88.560%	95.511%	94.075%
Range				

Sample Name: 480-143132-F-4-C Acquired: 10/27/2018 0:52:47 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.23260	-.00157	.05886	.04155
Stddev	.00012	.00796	.00040	.00003	.00011
%RSD	81.854	3.4203	25.313	.05057	.27435

#1	-.00023	.22697	-.00129	.05888	.04147
#2	-.00006	.23822	-.00185	.05883	.04163

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	390.76	.00035	.0181	.00012
Stddev	.00006	1.96	.00002	.0032	.00000
%RSD	71.278	.50041	5.8775	17.62	2.8833

#1	.00012	389.37	.00034	.0204	.00012
#2	.00004	392.14	.00037	.0159	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00122	.28672	6.7267	.02024
Stddev	.00017	.00037	.00205	.0372	.00025
%RSD	22.916	30.136	.71355	.55328	1.2399

#1	.00085	.00096	.28816	6.7530	.02006
#2	.00062	.00148	.28527	6.7004	.02041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143132-F-4-C Acquired: 10/27/2018 0:52:47 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	182.70	.24544	.00089	16.826	.00278
Stddev	.10	.00003	.00006	.037	.00025
%RSD	.05615	.01411	6.2274	.22239	8.9069

#1	182.62	.24546	.00093	16.800	.00295
#2	182.77	.24541	.00085	16.853	.00260

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00161	F 564.9	-.00370	-.00452	4.9934
Stddev	.00045	1.0	.00113	.00076	.0126
%RSD	27.830	.1747	30.509	16.738	.25139

#1	-.00192	564.2	-.00291	-.00505	4.9845
#2	-.00129	565.6	-.00450	-.00398	5.0023

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.73879	.00560	-.00003	-.00018
Stddev	.00017	.00172	.00001	.00089	.00018
%RSD	157.28	.23316	.24741	2870.4	101.48

#1	.00023	.73757	.00559	-.00066	-.00031
#2	-.00001	.74001	.00561	.00060	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143132-F-4-C Acquired: 10/27/2018 0:52:47 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00279**
Stddev .00000
%RSD .11080

#1 **.00279**
#2 **.00279**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2359.1	1362.7	42763.	3355.3
Stddev	4.0	4.2	132.	4.7
%RSD	.16993	.31035	.30939	.14090

#1	2361.9	1365.7	42857.	3358.6
#2	2356.3	1359.7	42669.	3351.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.563%	81.989%	89.564%	90.766%
Range				

Sample Name: 480-143294-A-1-A Acquired: 10/27/2018 0:56:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00331	9.2966	.75382	17.473	.41188
Stddev	.00036	.0724	.00140	.021	.00069
%RSD	10.953	.77916	.18596	.12232	.16853

#1	.00306	9.3478	.75481	17.488	.41139
#2	.00357	9.2453	.75282	17.458	.41237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	620.98	.00057	.0277	.03572
Stddev	.00001	.09	.00015	.0066	.00012
%RSD	2.8280	.01426	25.782	23.80	.34380

#1	-.00049	621.04	.00047	.0324	.03581
#2	-.00047	620.92	.00068	.0230	.03563

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.42352	.09908	43.259	F 578.84	.41261
Stddev	.00147	.00061	.063	7.37	.00086
%RSD	.34792	.61889	.14541	1.2736	.20727

#1	.42248	.09865	43.304	584.05	.41321
#2	.42456	.09951	43.215	573.63	.41200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				540.00	
Low Limit				-.50000	

Sample Name: 480-143294-A-1-A Acquired: 10/27/2018 0:56:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	106.24	1.5014	.03317	F 2424.2	.24190
Stddev	.15	.0024	.00035	4.9	.00041
%RSD	.14064	.16305	1.0618	.20348	.16826

#1	106.14	1.4997	.03342	2427.7	.24219
#2	106.35	1.5032	.03292	2420.7	.24162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02142	F 134.4	.00816	.00552	34.372
Stddev	.00093	.1	.00061	.00296	.028
%RSD	4.3196	.0721	7.4355	53.663	.08271

#1	.02207	134.4	.00859	.00762	34.392
#2	.02076	134.3	.00773	.00343	34.352

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18618	.97848	.84400	-.00417	.10567
Stddev	.00114	.00423	.00178	.00065	.00003
%RSD	.61107	.43208	.21096	15.703	.02474

#1	.18699	.98147	.84274	-.00463	.10569
#2	.18538	.97549	.84526	-.00371	.10566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143294-A-1-A Acquired: 10/27/2018 0:56:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.23834**
 Stddev .00008
 %RSD .03501

#1 **.23828**
 #2 **.23840**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1874.6	1205.2	37116.	3208.3
Stddev	.6	.4	13.	8.5
%RSD	.03373	.03395	.03631	.26633

#1	1874.1	1204.9	37125.	3202.2
#2	1875.0	1205.5	37106.	3214.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	65.606%	72.513%	77.736%	86.790%
Range				

Sample Name: 480-143294-A-1-A@5 Acquired: 10/27/2018 1:00:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00067	1.7419	.13333	3.4718	.08128
Stddev	.00019	.0222	.00007	.0008	.00008
%RSD	29.018	1.2748	.05522	.02287	.10190

#1	.00080	1.7262	.13338	3.4713	.08133
#2	.00053	1.7576	.13328	3.4724	.08122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	124.50	.00023	.0178	.00641
Stddev	.00000	.20	.00000	.0125	.00009
%RSD	.32284	.15861	1.7368	70.16	1.3822

#1	-.00012	124.36	.00024	.0090	.00635
#2	-.00012	124.64	.00023	.0266	.00647

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08364	.01812	8.6201	108.17	.07293
Stddev	.00038	.00052	.0450	.38	.00111
%RSD	.45492	2.8628	.52194	.35260	1.5189

#1	.08337	.01849	8.5883	107.90	.07215
#2	.08391	.01775	8.6519	108.44	.07372

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143294-A-1-A@5 Acquired: 10/27/2018 1:00:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	21.476	.29609	.00652	443.92	.04584
Stddev	.068	.00132	.00008	2.51	.00005
%RSD	.31509	.44428	1.2180	.56508	.10430

#1	21.428	.29516	.00646	442.14	.04581
#2	21.524	.29702	.00657	445.69	.04588

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00308	24.88	-.00074	-.00518	6.5261
Stddev	.00050	.01	.00080	.00074	.0367
%RSD	16.306	.0228	107.34	14.373	.56241

#1	.00343	24.89	-.00018	-.00570	6.5002
#2	.00272	24.88	-.00131	-.00465	6.5521

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03535	.18794	.16570	-.00103	.02070
Stddev	.00003	.00175	.00002	.00097	.00026
%RSD	.07972	.93025	.01370	94.503	1.2668

#1	.03533	.18670	.16568	-.00034	.02088
#2	.03537	.18917	.16571	-.00171	.02051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143294-A-1-A@5 Acquired: 10/27/2018 1:00:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.04697**
 Stddev .00077
 %RSD 1.6475

#1 **.04642**
 #2 **.04751**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2303.3	1367.5	42605.	3462.2
Stddev	.1	.1	102.	22.4
%RSD	.00345	.00945	.23894	.64776

#1	2303.4	1367.6	42677.	3478.1
#2	2303.2	1367.4	42533.	3446.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.611%	82.278%	89.233%	93.660%
Range				

Sample Name: blank Acquired: 10/27/2018 1:04:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.00837	-.00030	.00907	.00002
Stddev	.00023	.00122	.00014	.00092	.00000
%RSD	121.23	14.541	47.113	10.180	27.027

#1	-.00003	.00751	-.00020	.00973	.00002
#2	-.00036	.00923	-.00041	.00842	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00635	-.00002	-.0042	-.00019
Stddev	.00010	.00066	.00011	.0140	.00011
%RSD	165.80	10.359	566.01	330.1	62.049

#1	-.00001	.00588	.00006	-.0141	-.00027
#2	.00013	.00681	-.00010	.0057	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.00008	.00014	.14563	-.00011
Stddev	.00006	.00006	.00038	.00311	.00101
%RSD	29.773	83.158	260.95	2.1351	899.86

#1	.00017	-.00003	.00041	.14783	.00060
#2	.00025	-.00012	-.00012	.14343	-.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/27/2018 1:04:33 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00199	.00005	.00004	.23107	-.00024
Stddev	.00157	.00000	.00017	.01337	.00005
%RSD	78.709	9.9804	389.49	5.7871	20.746

#1	.00310	.00004	-.00008	.24053	-.00028
#2	.00088	.00005	.00016	.22161	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00113	.0232	-.00024	.00086	.04351
Stddev	.00030	.0036	.00015	.00010	.00324
%RSD	26.901	15.40	60.754	11.774	7.4550

#1	-.00091	.0206	-.00035	.00079	.04122
#2	-.00134	.0257	-.00014	.00093	.04580

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00005	.00019	-.00060	-.00001
Stddev	.00004	.00001	.00023	.00022	.00003
%RSD	16.252	21.395	122.70	36.225	205.82

#1	.00020	.00005	.00035	-.00045	-.00004
#2	.00026	.00006	.00002	-.00076	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/27/2018 1:04:33 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00005**
 Stddev .00049
 %RSD 930.18

#1 -.00029
 #2 .00040

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2785.5	1513.9	47668.	3526.5
Stddev	1.3	.2	208.	12.3
%RSD	.04705	.01505	.43672	.35017

#1	2784.5	1514.0	47815.	3517.8
#2	2786.4	1513.7	47521.	3535.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.486%	91.084%	99.837%	95.399%
Range				

Sample Name: blank Acquired: 10/27/2018 1:08:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.01262	.00108	.00616	.00006
Stddev	.00008	.00669	.00004	.00038	.00001
%RSD	29.098	52.971	3.4387	6.2044	17.715

#1	-.00023	.00790	.00105	.00643	.00005
#2	-.00035	.01735	.00110	.00589	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00866	-.00009	.0075	-.00000
Stddev	.00006	.00187	.00009	.0129	.00001
%RSD	215.25	21.557	107.22	171.0	638.21

#1	.00007	.00734	-.00002	-.0016	.00001
#2	-.00002	.00999	-.00015	.0167	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00009	.00260	.09354	.00056
Stddev	.00016	.00011	.00226	.02188	.00032
%RSD	229.03	118.87	86.912	23.396	58.103

#1	-.00018	.00001	.00420	.07806	.00079
#2	.00004	.00017	.00100	.10901	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/27/2018 1:08:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	-.00017	.00005	.15955	.00002
Stddev	.00127	.00004	.00011	.00496	.00009
%RSD	158.54	22.984	200.09	3.1090	533.92

#1	.00170	-.00015	.00013	.15604	-.00004
#2	-.00010	-.00020	-.00002	.16305	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.0231	-.00046	.00016	.00158
Stddev	.00015	.0035	.00065	.00115	.01417
%RSD	51.634	15.11	141.10	727.38	894.48

#1	-.00040	.0206	-.00000	-.00066	-.00844
#2	-.00019	.0255	-.00092	.00097	.01160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00006	-.00021	-.00068	.00007
Stddev	.00011	.00001	.00002	.00004	.00004
%RSD	764.89	12.280	10.462	5.3124	54.499

#1	.00009	.00005	-.00020	-.00065	.00010
#2	-.00006	.00006	-.00023	-.00071	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/27/2018 1:08:25 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00120
Stddev .00053
%RSD 44.101

#1 .00157
#2 .00082

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2769.6	1532.7	47109.	3504.1
Stddev	.1	.4	31.	5.2
%RSD	.00506	.02879	.06542	.14882

#1	2769.7	1533.0	47087.	3507.8
#2	2769.5	1532.4	47131.	3500.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.930%	92.217%	98.666%	94.794%
Range				

Sample Name: CCV-4954075 Acquired: 10/27/2018 1:12:17 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49087	23.441	.48792	.49590	.49191	.45842	23.909	.51713
Stddev	.00082	.085	.00245	.00174	.00027	.00187	.095	.00051
%RSD	.16783	.36387	.50222	.35122	.05573	.40713	.39890	.09945
#1	.49145	23.501	.48965	.49713	.49210	.45974	23.977	.51750
#2	.49029	23.381	.48619	.49467	.49172	.45710	23.842	.51677

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0062	.48433	.48212	.48731	22.663	23.763	.46476	23.693
Stddev	.0297	.00043	.00232	.00064	.074	.062	.00011	.010
%RSD	482.2	.08814	.48095	.13045	.32777	.26078	.02428	.04261
#1	.0149	.48463	.48048	.48776	22.716	23.807	.46484	23.686
#2	-.0272	.48403	.48375	.48686	22.610	23.719	.46468	23.700

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48604	.49683	23.403	.46621	.48882	26.37	.50747	.49564
Stddev	.00041	.00060	.046	.00009	.00096	.11	.00116	.00348
%RSD	.08486	.12169	.19516	.01839	.19677	.3998	.22892	.70250
#1	.48633	.49726	23.436	.46627	.48814	26.44	.50829	.49810
#2	.48574	.49640	23.371	.46614	.48950	26.30	.50665	.49317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/27/2018 1:12:17 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.149	.49836	.48912	.47963	.45964	.47793	.47507
Stddev	.058	.00041	.00156	.00121	.00210	.00257	.00384
%RSD	.24003	.08257	.31857	.25232	.45794	.53686	.80836

#1	24.108	.49807	.49022	.48048	.46113	.47612	.47235
#2	24.190	.49866	.48802	.47877	.45816	.47974	.47778

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2626.4	1494.4	45835.	3478.6
Stddev	1.7	1.8	147.	14.8
%RSD	.06388	.11752	.31999	.42660

#1	2625.2	1493.2	45939.	3468.1
#2	2627.5	1495.7	45731.	3489.1

Sample Name: CCB-4957862 Acquired: 10/27/2018 1:16:00 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00377	.00060	.00380	.00001	.00008	.00218	-.00003
Stddev	.00025	.00270	.00020	.00023	.00001	.00002	.00196	.00003
%RSD	206.74	71.537	33.979	5.9763	88.974	23.985	89.652	91.694

#1	.00030	.00567	.00045	.00396	.00002	.00006	.00356	-.00006
#2	-.00006	.00186	.00074	.00364	.00000	.00009	.00080	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0064	-.00009	-.00016	.00002	-.00021	.06285	-.00008	-.00037
Stddev	.0082	.00009	.00021	.00048	.00031	.00550	.00083	.00080
%RSD	128.1	97.165	129.98	2758.1	149.20	8.7459	1092.2	218.26

#1	-.0122	-.00003	-.00031	-.00032	-.00043	.05896	-.00066	.00020
#2	-.0006	-.00015	-.00001	.00036	.00001	.06674	.00051	-.00093

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00083	.12238	-.00017	-.00003	.0137	.00007	-.00321
Stddev	.00001	.00020	.00565	.00011	.00015	.0002	.00121	.00095
%RSD	71.658	23.601	4.6189	63.624	486.97	1.147	1761.3	29.735

#1	.00003	.00069	.12638	-.00025	-.00014	.0136	.00092	-.00254
#2	.00001	.00097	.11839	-.00009	.00008	.0138	-.00079	-.00389

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 1:16:00 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01259	.00004	-.00007	-.00012	-.00020	-.00003	.00006
Stddev	.00822	.00002	.00006	.00017	.00082	.00014	.00012
%RSD	65.326	48.150	81.819	135.97	416.82	433.52	196.80

#1	.00677	.00003	-.00011	-.00024	-.00077	-.00013	-.00002
#2	.01840	.00005	-.00003	-.00000	.00038	.00007	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2793.0	1538.4	47619.	3509.0
Stddev	2.7	1.2	37.	9.6
%RSD	.09604	.07624	.07684	.27236

#1	2791.1	1537.5	47645.	3502.2
#2	2794.9	1539.2	47593.	3515.7

Sample Name: CCVL-4954076 Acquired: 10/27/2018 1:19:53 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00573	.20261	.01193	.02369	.00205	.00198	.49707	.00209
Stddev	.00003	.00288	.00118	.00078	.00000	.00007	.00510	.00008
%RSD	.56770	1.4196	9.8860	3.2851	.18160	3.5441	1.0261	4.0227

#1	.00570	.20464	.01109	.02424	.00205	.00193	.49347	.00215
#2	.00575	.20058	.01276	.02314	.00205	.00203	.50068	.00203

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	.00377	.00367	.00963	.04473	.50375	.02706	.19990
Stddev	.0063	.00001	.00017	.00021	.00218	.01732	.00044	.00487
%RSD	1597.	.16799	4.7494	2.1447	4.8786	3.4383	1.6442	2.4358

#1	.0041	.00377	.00379	.00978	.04319	.51600	.02674	.20335
#2	-.0049	.00378	.00355	.00949	.04628	.49150	.02737	.19646

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00273	.00994	1.0117	.00929	.00995	.2210	.01760	.02168
Stddev	.00006	.00004	.0049	.00007	.00008	.0015	.00098	.00186
%RSD	2.3678	.40137	.48831	.76236	.76790	.6960	5.5951	8.5855

#1	.00277	.00997	1.0082	.00924	.00989	.2221	.01829	.02300
#2	.00268	.00991	1.0152	.00934	.01000	.2199	.01690	.02037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/27/2018 1:19:53 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44999	.00946	.00477	.00429	.01838	.00470	.01028
Stddev	.00932	.00057	.00003	.00001	.00065	.00007	.00035
%RSD	2.0716	6.0087	.70346	.12975	3.5569	1.4215	3.4349

#1	.44340	.00986	.00479	.00430	.01884	.00474	.01053
#2	.45658	.00906	.00474	.00429	.01792	.00465	.01003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2779.4	1520.6	47147.	3493.8
Stddev	2.1	2.2	16.	.8
%RSD	.07569	.14433	.03317	.02378

#1	2777.9	1519.1	47136.	3493.2
#2	2780.9	1522.2	47158.	3494.4

Sample Name: MB 480-440596/1-A Acquired: 10/27/2018 1:23:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	-.00257	-.00004	.00291	.00004
Stddev	.00018	.01900	.00064	.00004	.00001
%RSD	103.89	738.69	1599.0	1.2047	21.550

#1	.00005	-.01601	.00042	.00293	.00005
#2	.00031	.01086	-.00050	.00288	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.01175	-.00008	-.0082	-.00009
Stddev	.00002	.00141	.00003	.0020	.00005
%RSD	62.506	12.028	41.473	23.87	59.335

#1	.00002	.01275	-.00010	-.0068	-.00012
#2	.00005	.01075	-.00006	-.0096	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00019	-.00147	.04341	.00095
Stddev	.00014	.00020	.00083	.00823	.00029
%RSD	194.53	107.45	56.684	18.957	30.249

#1	.00017	.00004	-.00088	.04923	.00116
#2	-.00003	.00033	-.00206	.03759	.00075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440596/1-A Acquired: 10/27/2018 1:23:44 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	-.00014	.00004	.10417	-.00022
Stddev	.00091	.00004	.00017	.00708	.00035
%RSD	270.43	25.951	450.18	6.7990	161.46

#1	.00099	-.00016	.00016	.09916	-.00047
#2	-.00031	-.00011	-.00008	.10917	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00120	.0148	-.00024	-.00173	-.02822
Stddev	.00074	.0026	.00056	.00214	.00992
%RSD	61.804	17.85	237.43	123.55	35.132

#1	-.00068	.0129	-.00063	-.00324	-.03524
#2	-.00172	.0167	.00016	-.00022	-.02121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00001	-.00027	-.00087	-.00013
Stddev	.00063	.00000	.00010	.00192	.00009
%RSD	850.37	62.491	37.009	220.39	66.878

#1	.00052	.00001	-.00034	.00049	-.00020
#2	-.00037	.00000	-.00020	-.00223	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440596/1-A Acquired: 10/27/2018 1:23:44 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00038**
 Stddev .00021
 %RSD 54.457

#1 **.00052**
 #2 **.00023**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2766.3	1510.2	47361.	3552.2
Stddev	3.6	1.5	94.	12.9
%RSD	.13075	.09852	.19909	.36225

#1	2763.8	1509.1	47294.	3561.3
#2	2768.9	1511.2	47428.	3543.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.815%	90.862%	99.194%	96.093%
Range				

Sample Name: LCS 480-440596/2-A Acquired: 10/27/2018 1:27:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04696	9.1819	.19695	.20800	.19403
Stddev	.00040	.1351	.00259	.00018	.00006
%RSD	.84965	1.4712	1.3172	.08556	.03301

#1	.04724	9.0864	.19512	.20813	.19407
#2	.04667	9.2774	.19878	.20788	.19398

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18468	9.2808	.20835	-.0057	.18599
Stddev	.00073	.0063	.00022	.0039	.00010
%RSD	.39429	.06741	.10795	68.43	.05353

#1	.18416	9.2764	.20850	-.0029	.18592
#2	.18519	9.2852	.20819	-.0085	.18606

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18644	.18484	8.7923	9.0516	.17971
Stddev	.00000	.00041	.0334	.0604	.00016
%RSD	.00169	.22257	.38013	.66698	.09033

#1	.18645	.18513	8.7686	9.0089	.17959
#2	.18644	.18455	8.8159	9.0943	.17982

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440596/2-A Acquired: 10/27/2018 1:27:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.4008	.18339	.19073	8.8465	.18659
Stddev	.0062	.00020	.00044	.0573	.00130
%RSD	.06586	.10923	.23157	.64829	.69517

#1	9.3964	.18325	.19042	8.8060	.18567
#2	9.4051	.18353	.19104	8.8871	.18750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19084	10.64	.19803	.19708	9.1162
Stddev	.00172	.02	.00015	.00056	.1070
%RSD	.90153	.1487	.07339	.28649	1.1741

#1	.19205	10.65	.19793	.19668	9.0405
#2	.18962	10.62	.19813	.19748	9.1919

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19442	.18574	.18454	.17994	.18309
Stddev	.00043	.00120	.00063	.00027	.00046
%RSD	.21956	.64595	.34219	.14827	.24921

#1	.19412	.18489	.18410	.17975	.18341
#2	.19473	.18659	.18499	.18013	.18276

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440596/2-A Acquired: 10/27/2018 1:27:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19353**
 Stddev .00004
 %RSD .01875

#1 **.19355**
 #2 **.19350**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2683.3	1493.5	46669.	3554.8
Stddev	.3	3.5	41.	19.8
%RSD	.01008	.23351	.08852	.55782

#1	2683.5	1491.1	46640.	3568.8
#2	2683.1	1496.0	46698.	3540.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.910%	89.860%	97.744%	96.163%
Range				

Sample Name: 480-143693-A-1-A Acquired: 10/27/2018 1:31:16 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.07806	.00490	.26826	.09007
Stddev	.00011	.00689	.00167	.00055	.00058
%RSD	83.128	8.8303	34.179	.20645	.64788

#1	-.00022	.08294	.00372	.26865	.08966
#2	-.00006	.07319	.00608	.26787	.09048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	141.39	.00015	.0250	.00002
Stddev	.00001	.50	.00000	.0011	.00005
%RSD	37.760	.35534	.67634	4.342	220.90

#1	.00005	141.75	.00015	.0243	.00006
#2	.00003	141.04	.00015	.0258	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00032	4.3238	4.9152	.00600
Stddev	.00024	.00063	.0088	.0242	.00094
%RSD	29.742	195.40	.20261	.49179	15.749

#1	.00063	.00077	4.3300	4.9323	.00533
#2	.00096	-.00012	4.3176	4.8981	.00667

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-A Acquired: 10/27/2018 1:31:16 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	37.119	.65837	.00100	35.034	-.00002
Stddev	.011	.00094	.00018	.014	.00006
%RSD	.03042	.14274	17.855	.04079	378.48

#1	37.111	.65770	.00112	35.044	.00003
#2	37.127	.65903	.00087	35.023	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	2.576	-.00243	-.00277	7.1012
Stddev	.00023	.011	.00041	.00037	.0306
%RSD	64.798	.4121	17.052	13.259	.43065

#1	-.00051	2.584	-.00272	-.00303	7.1228
#2	-.00019	2.569	-.00213	-.00251	7.0796

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.40861	.00179	-.00009	.00081
Stddev	.00051	.00026	.00023	.00023	.00021
%RSD	781.13	.06464	12.950	253.50	25.877

#1	.00043	.40842	.00196	-.00025	.00096
#2	-.00030	.40879	.00163	.00007	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-A Acquired: 10/27/2018 1:31:16 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00057**
 Stddev .00166
 %RSD 292.55

#1 **.00174**
 #2 **-.00061**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2500.8	1440.3	44633.	3449.4
Stddev	3.8	2.9	113.	8.7
%RSD	.15247	.20417	.25278	.25304

#1	2503.5	1438.2	44713.	3443.3
#2	2498.1	1442.3	44553.	3455.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.522%	86.655%	93.481%	93.314%
Range				

Sample Name: 480-143693-A-1-Asd@5 Acquired: 10/27/2018 1:35:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.02294	-.00030	.05281	.01778
Stddev	.00015	.00021	.00125	.00017	.00006
%RSD	34.076	.93484	408.97	.32498	.34029

#1	-.00034	.02309	.00058	.05269	.01782
#2	-.00056	.02279	-.00119	.05293	.01774

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	27.947	.00009	.0059	-.00008
Stddev	.00000	.067	.00008	.0147	.00019
%RSD	17.078	.24134	82.078	250.9	245.73

#1	-.00001	27.899	.00015	.0163	-.00021
#2	-.00001	27.994	.00004	-.0045	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00009	.86853	.93507	.00125
Stddev	.00015	.00033	.00862	.00770	.00049
%RSD	86.509	362.84	.99277	.82307	39.025

#1	.00007	.00014	.86243	.94051	.00159
#2	.00027	-.00032	.87463	.92962	.00090

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-Asd@5 Acquired: 10/27/2018 1:35:02 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.2876	.13324	.00008	6.7640	-.00022
Stddev	.0032	.00034	.00002	.0098	.00001
%RSD	.04334	.25708	29.363	.14553	5.8555

#1	7.2898	.13348	.00010	6.7710	-.00023
#2	7.2853	.13300	.00007	6.7571	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	.5018	-.00281	-.00280	1.3543
Stddev	.00093	.0032	.00058	.00320	.0140
%RSD	123.93	.6319	20.742	114.39	1.0333

#1	-.00141	.4996	-.00239	-.00506	1.3642
#2	-.00009	.5040	-.00322	-.00054	1.3444

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.08104	-.00017	.00059	-.00007
Stddev	.00009	.00009	.00015	.00064	.00033
%RSD	610.48	.10730	86.171	108.40	444.80

#1	-.00008	.08098	-.00007	.00014	-.00031
#2	.00005	.08110	-.00027	.00105	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-Asd@5 Acquired: 10/27/2018 1:35:02 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00191**
 Stddev .00057
 %RSD 29.722

#1 **.00231**
 #2 **.00151**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2698.9	1502.3	46301.	3488.6
Stddev	.4	.7	227.	12.5
%RSD	.01360	.04495	.48938	.35866

#1	2698.6	1502.8	46141.	3497.5
#2	2699.2	1501.8	46461.	3479.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.456%	90.386%	96.974%	94.374%
Range				

Sample Name: 480-143693-A-1-Apds Acquired: 10/27/2018 1:38:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05006	9.6795	.21049	.47891	.28605
Stddev	.00004	.0119	.00060	.00058	.00037
%RSD	.08717	.12316	.28693	.12087	.12839

#1	.05009	9.6711	.21006	.47932	.28631
#2	.05003	9.6879	.21091	.47850	.28579

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19154	144.94	.22008	-.0007	.19477
Stddev	.00004	.26	.00016	.0003	.00023
%RSD	.02097	.17948	.07194	43.30	.11995

#1	.19157	145.12	.21997	-.0005	.19493
#2	.19152	144.75	.22019	-.0009	.19460

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19108	.19469	13.093	14.525	.19806
Stddev	.00002	.00001	.005	.031	.00187
%RSD	.00839	.00262	.03896	.21308	.94546

#1	.19109	.19469	13.089	14.547	.19939
#2	.19106	.19470	13.096	14.503	.19674

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-Apds Acquired: 10/27/2018 1:38:51 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	45.546	.81823	.19896	43.108	.19299
Stddev	.035	.00096	.00033	.132	.00019
%RSD	.07707	.11693	.16449	.30557	.09978

#1	45.521	.81891	.19872	43.202	.19312
#2	45.571	.81756	.19919	43.015	.19285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20276	13.69	.20757	.20589	16.259
Stddev	.00133	.00	.00010	.00159	.060
%RSD	.65577	.0178	.04806	.77108	.36919

#1	.20370	13.69	.20764	.20701	16.302
#2	.20182	13.69	.20750	.20477	16.217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20816	.58456	.19424	.18983	.19252
Stddev	.00085	.00169	.00042	.00204	.00006
%RSD	.40719	.28900	.21542	1.0763	.03276

#1	.20876	.58575	.19454	.18839	.19248
#2	.20756	.58336	.19394	.19128	.19257

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-Apds Acquired: 10/27/2018 1:38:51 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19835**
 Stddev .00311
 %RSD 1.5691

#1 **.20055**
 #2 **.19615**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2467.4	1425.8	44328.	3458.2
Stddev	1.6	1.2	46.	10.2
%RSD	.06330	.08199	.10385	.29363

#1	2466.3	1425.0	44295.	3451.0
#2	2468.5	1426.6	44360.	3465.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.353%	85.785%	92.841%	93.551%
Range				

Sample Name: 480-143693-A-1-B MS Acquired: 10/27/2018 1:42:30 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04836	9.3551	.20429	.47949	.27955
Stddev	.00067	.0480	.00199	.00080	.00015
%RSD	1.3809	.51290	.97194	.16585	.05257

#1	.04789	9.3211	.20570	.47893	.27966
#2	.04884	9.3890	.20289	.48006	.27945

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18515	145.77	.21538	.0012	.18825
Stddev	.00048	.51	.00046	.0076	.00014
%RSD	.25747	.34765	.21322	639.5	.07406

#1	.18481	145.41	.21571	.0065	.18835
#2	.18548	146.13	.21506	-.0042	.18815

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18259	.18722	12.701	14.357	.19391
Stddev	.00054	.00009	.060	.050	.00000
%RSD	.29564	.04659	.47015	.35165	.00138

#1	.18297	.18716	12.659	14.321	.19391
#2	.18221	.18729	12.743	14.393	.19391

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-B MS Acquired: 10/27/2018 1:42:30 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	45.383	.81142	.19393	42.384	.18574
Stddev	.089	.00214	.00041	.020	.00007
%RSD	.19503	.26336	.21359	.04824	.03727

#1	45.320	.80991	.19364	42.369	.18569
#2	45.445	.81293	.19423	42.398	.18579

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19493	13.67	.20395	.19800	15.948
Stddev	.00051	.01	.00136	.00214	.024
%RSD	.25988	.0428	.66450	1.0785	.15307

#1	.19529	13.67	.20490	.19649	15.931
#2	.19458	13.68	.20299	.19951	15.965

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19897	.57119	.18696	.18303	.18309
Stddev	.00018	.00090	.00150	.00062	.00099
%RSD	.08824	.15784	.80404	.33862	.53997

#1	.19910	.57055	.18590	.18347	.18239
#2	.19885	.57183	.18802	.18260	.18378

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-B MS Acquired: 10/27/2018 1:42:30 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.18738**
 Stddev .00048
 %RSD .25694

#1 **.18704**
 #2 **.18772**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2464.3	1412.8	44561.	3462.2
Stddev	.9	.6	165.	14.1
%RSD	.03818	.03993	.37033	.40588

#1	2463.6	1413.2	44678.	3472.1
#2	2465.0	1412.4	44444.	3452.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.245%	85.003%	93.330%	93.658%
Range				

Sample Name: 480-143693-A-1-C MSD Acquired: 10/27/2018 1:46:10 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04805	9.4017	.20714	.47102	.28071
Stddev	.00023	.0321	.00033	.00050	.00000
%RSD	.48767	.34101	.16133	.10599	.00116

#1	.04788	9.4243	.20738	.47138	.28071
#2	.04821	9.3790	.20690	.47067	.28071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18583	141.76	.21436	.0198	.18966
Stddev	.00039	.17	.00003	.0009	.00036
%RSD	.21030	.11831	.01366	4.482	.18773

#1	.18611	141.88	.21438	.0204	.18941
#2	.18556	141.64	.21434	.0192	.18991

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18445	.18806	12.657	14.161	.19343
Stddev	.00010	.00078	.040	.022	.00031
%RSD	.05438	.41242	.31741	.15586	.15794

#1	.18452	.18861	12.629	14.177	.19365
#2	.18438	.18751	12.686	14.146	.19322

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-C MSD Acquired: 10/27/2018 1:46:10 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	44.414	.79663	.19475	41.501	.18816
Stddev	.018	.00085	.00018	.009	.00070
%RSD	.03950	.10721	.09187	.02089	.37382

#1	44.401	.79603	.19487	41.495	.18866
#2	44.426	.79723	.19462	41.507	.18767

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19688	13.63	.20362	.20003	15.774
Stddev	.00008	.00	.00001	.00373	.011
%RSD	.04119	.0284	.00485	1.8669	.06699

#1	.19694	13.63	.20361	.19738	15.781
#2	.19682	13.63	.20363	.20267	15.766

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20062	.56351	.18771	.18356	.18594
Stddev	.00043	.00091	.00103	.00043	.00026
%RSD	.21573	.16065	.54720	.23198	.13850

#1	.20031	.56287	.18698	.18326	.18613
#2	.20093	.56415	.18843	.18386	.18576

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-1-C MSD Acquired: 10/27/2018 1:46:10 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19054**
 Stddev .00047
 %RSD .24515

#1 **.19087**
 #2 **.19021**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2462.8	1418.6	44446.	3479.5
Stddev	1.8	.1	47.	2.2
%RSD	.07442	.00682	.10544	.06339

#1	2464.1	1418.7	44479.	3477.9
#2	2461.5	1418.5	44413.	3481.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.192%	85.353%	93.089%	94.127%
Range				

Sample Name: 480-143693-A-2-A Acquired: 10/27/2018 1:49:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.03890	.01751	.63696	.11215
Stddev	.00033	.00512	.00061	.00203	.00022
%RSD	235.72	13.171	3.4937	.31880	.19663

#1	.00009	.03528	.01794	.63840	.11231
#2	-.00037	.04252	.01708	.63553	.11200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	216.21	.00018	.0119	-.00022
Stddev	.00006	.14	.00002	.0021	.00006
%RSD	79.524	.06433	11.908	17.68	27.848

#1	.00011	216.31	.00020	.0104	-.00027
#2	.00003	216.11	.00017	.0134	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00086	.00014	5.2860	11.106	.00802
Stddev	.00007	.00017	.0005	.021	.00103
%RSD	7.6826	126.53	.00993	.18886	12.815

#1	.00081	.00001	5.2864	11.091	.00730
#2	.00090	.00026	5.2857	11.121	.00875

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-2-A Acquired: 10/27/2018 1:49:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	63.457	.99776	.00060	28.548	-.00014
Stddev	.018	.00075	.00011	.016	.00023
%RSD	.02827	.07533	18.586	.05531	168.22

#1	63.444	.99829	.00052	28.559	.00003
#2	63.469	.99723	.00068	28.537	-.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	28.39	-.00278	-.00329	9.1685
Stddev	.00134	.06	.00066	.00447	.0261
%RSD	424.81	.2124	23.787	135.87	.28508

#1	-.00063	28.44	-.00231	-.00645	9.1870
#2	.00126	28.35	-.00325	-.00013	9.1501

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00112	.87583	.00052	.00036	.00125
Stddev	.00111	.00081	.00012	.00012	.00012
%RSD	99.860	.09240	22.647	32.398	9.9161

#1	.00190	.87641	.00060	.00044	.00133
#2	.00033	.87526	.00044	.00027	.00116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-2-A Acquired: 10/27/2018 1:49:48 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00187**
 Stddev .00065
 %RSD 34.915

#1 **.00233**
 #2 **.00140**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2425.8	1405.5	43796.	3453.9
Stddev	1.7	.7	92.	5.8
%RSD	.07078	.04639	.20974	.16685

#1	2427.0	1406.0	43731.	3449.8
#2	2424.6	1405.1	43861.	3457.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.897%	84.565%	91.727%	93.434%
Range				

Sample Name: 480-143693-A-3-A Acquired: 10/27/2018 1:53:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.02018	.00278	1.1175	.05601
Stddev	.00006	.01583	.00079	.0035	.00006
%RSD	26.024	78.457	28.556	.30958	.11426

#1	-.00020	.03138	.00334	1.1151	.05605
#2	-.00029	.00898	.00222	1.1199	.05596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	178.66	.00017	.0099	.00133
Stddev	.00003	.50	.00003	.0029	.00017
%RSD	91.333	.28100	19.362	28.76	12.713

#1	.00001	179.02	.00014	.0119	.00121
#2	.00005	178.31	.00019	.0079	.00145

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00104	.00187	2.4661	32.673	.00158
Stddev	.00013	.00069	.0059	.052	.00010
%RSD	12.083	36.889	.23782	.15977	6.4601

#1	.00095	.00138	2.4703	32.636	.00150
#2	.00113	.00236	2.4620	32.710	.00165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-3-A Acquired: 10/27/2018 1:53:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	54.805	.22562	.00290	44.438	.00260
Stddev	.036	.00040	.00001	.058	.00024
%RSD	.06537	.17847	.45184	.12942	9.2178

#1	54.780	.22534	.00291	44.478	.00277
#2	54.831	.22591	.00290	44.397	.00243

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	43.41	-.00362	.00082	5.8041
Stddev	.00066	.02	.00012	.00045	.0073
%RSD	227.87	.0428	3.4394	54.554	.12609

#1	.00075	43.39	-.00353	.00051	5.8092
#2	-.00018	43.42	-.00371	.00114	5.7989

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.81607	.00110	.00034	.00111
Stddev	.00057	.00054	.00005	.00109	.00042
%RSD	479.68	.06654	4.8462	320.52	37.412

#1	-.00028	.81645	.00114	.00111	.00141
#2	.00052	.81569	.00106	-.00043	.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-3-A Acquired: 10/27/2018 1:53:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00237**
Stddev .00024
%RSD 10.226

#1 **.00254**
#2 **.00220**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2433.2	1404.2	43710.	3437.5
Stddev	.8	1.1	52.	5.8
%RSD	.03177	.07622	.11895	.16843

#1	2433.7	1405.0	43673.	3433.4
#2	2432.6	1403.5	43746.	3441.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.156%	84.488%	91.546%	92.990%
Range				

Sample Name: CCV-4954075 Acquired: 10/27/2018 1:57:22 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49821	23.658	.49915	.50575	.49954	.46490	24.323	.53040
Stddev	.00029	.206	.00426	.00050	.00209	.00082	.058	.00071
%RSD	.05786	.87023	.85332	.09854	.41893	.17534	.23688	.13364
#1	.49800	23.513	.49614	.50610	.50102	.46548	24.364	.53090
#2	.49841	23.804	.50216	.50540	.49806	.46432	24.283	.52989

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0163	.49359	.48944	.49488	22.928	24.216	.47261	24.069
Stddev	.0035	.00008	.00090	.00125	.055	.045	.00064	.013
%RSD	21.35	.01622	.18394	.25330	.24004	.18777	.13574	.05407
#1	.0187	.49365	.49008	.49399	22.889	24.248	.47215	24.078
#2	.0138	.49353	.48880	.49577	22.967	24.184	.47306	24.060

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49382	.50750	23.558	.47314	.49959	27.11	.51899	.50664
Stddev	.00027	.00104	.146	.00046	.00249	.07	.00141	.00232
%RSD	.05544	.20476	.62085	.09654	.49938	.2592	.27154	.45809
#1	.49401	.50824	23.455	.47346	.49783	27.16	.51998	.50828
#2	.49362	.50677	23.662	.47282	.50136	27.06	.51799	.50500

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/27/2018 1:57:22 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.243	.50913	.49323	.48827	.46603	.48340	.48698
Stddev	.098	.00170	.00400	.00075	.00023	.00262	.00180
%RSD	.40509	.33389	.81126	.15385	.05008	.54127	.36887
#1	24.173	.51033	.49040	.48774	.46620	.48525	.48825
#2	24.312	.50793	.49606	.48880	.46587	.48155	.48571

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2620.7	1480.9	45822.	3461.4
Stddev	2.3	2.4	60.	9.0
%RSD	.08884	.15999	.12996	.25986
#1	2619.0	1479.2	45780.	3467.7
#2	2622.3	1482.5	45864.	3455.0

Sample Name: CCB-4957862 Acquired: 10/27/2018 2:01:06 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.01710	.00072	.00108	.00001	-.00000	.00155	-.00005
Stddev	.00009	.01387	.00030	.00011	.00001	.00007	.00270	.00004
%RSD	1269.6	81.136	41.105	10.124	151.64	3391.1	173.71	75.433

#1	-.00007	.00729	.00051	.00116	-.00000	.00004	-.00035	-.00002
#2	.00006	.02690	.00093	.00100	.00002	-.00005	.00346	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058	-.00020	.00019	.00008	.00071	.01535	-.00024	-.00158
Stddev	.0125	.00017	.00012	.00013	.00001	.00436	.00067	.00187
%RSD	216.0	86.697	60.791	156.89	1.2745	28.392	281.25	118.57

#1	-.0030	-.00032	.00011	-.00001	.00070	.01843	.00024	-.00025
#2	.0146	-.00008	.00028	.00017	.00071	.01227	-.00071	-.00290

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00101	.08322	-.00014	-.00087	.0102	-.00083	-.00177
Stddev	.00002	.00009	.00183	.00018	.00057	.0044	.00016	.00123
%RSD	11.343	9.3903	2.1964	124.27	65.750	42.59	19.270	69.785

#1	.00018	.00107	.08193	-.00027	-.00128	.0133	-.00094	-.00264
#2	.00015	.00094	.08452	-.00002	-.00047	.0071	-.00072	-.00090

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 2:01:06 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	.00021	.00001	.00011	-.00032	.00004	.00010
Stddev	.00096	.00074	.00001	.00004	.00068	.00004	.00020
%RSD	159.16	348.20	129.05	39.466	213.25	90.117	200.75
#1	.00008	.00073	.00000	.00008	-.00079	.00001	-.00004
#2	-.00128	-.00031	.00002	.00014	.00016	.00007	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2805.9	1524.8	47621.	3506.3
Stddev	.2	.7	159.	7.5
%RSD	.00800	.04783	.33448	.21303
#1	2806.1	1524.2	47733.	3511.6
#2	2805.8	1525.3	47508.	3501.1

Sample Name: CCVL-4954076 Acquired: 10/27/2018 2:04:58 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00571	.18389	.01536	.02199	.00206	.00191	.50164	.00216
Stddev	.00006	.01139	.00157	.00001	.00002	.00005	.00263	.00006
%RSD	1.0031	6.1936	10.226	.06523	1.1623	2.7483	.52346	2.9659
#1	.00567	.17584	.01425	.02198	.00205	.00188	.50350	.00220
#2	.00576	.19195	.01647	.02200	.00208	.00195	.49979	.00211

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0212	.00374	.00373	.00943	.04710	.46554	.02664	.20195
Stddev	.0060	.00014	.00022	.00035	.00262	.01628	.00000	.00051
%RSD	28.45	3.7271	5.8841	3.7632	5.5562	3.4964	.00736	.25276
#1	.0170	.00384	.00357	.00968	.04895	.47705	.02664	.20231
#2	.0255	.00364	.00388	.00918	.04525	.45403	.02664	.20159

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00272	.00993	.95847	.00931	.00904	.2255	.01895	.02283
Stddev	.00003	.00027	.00758	.00028	.00004	.0006	.00073	.00044
%RSD	1.0799	2.7273	.79069	3.0077	.48867	.2605	3.8762	1.9402
#1	.00275	.01012	.95311	.00951	.00907	.2259	.01843	.02252
#2	.00270	.00973	.96383	.00911	.00901	.2251	.01947	.02314

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/27/2018 2:04:58 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44384	.01029	.00481	.00440	.01763	.00468	.01165
Stddev	.00301	.00037	.00013	.00022	.00101	.00002	.00067
%RSD	.67722	3.6155	2.6695	4.9148	5.7132	.48584	5.7506

#1	.44597	.01002	.00490	.00425	.01834	.00467	.01212
#2	.44172	.01055	.00472	.00456	.01692	.00470	.01118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2761.5	1508.7	46930.	3485.3
Stddev	.0	4.3	3.	.7
%RSD	.00159	.28216	.00724	.02056

#1	2761.6	1505.7	46933.	3484.8
#2	2761.5	1511.7	46928.	3485.8

Sample Name: 480-143693-A-4-A Acquired: 10/27/2018 2:08:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.02701	.00222	1.0656	.05333
Stddev	.00013	.01549	.00144	.0022	.00018
%RSD	209.51	57.353	64.653	.20553	.33855

#1	.00003	.01605	.00121	1.0671	.05345
#2	-.00015	.03796	.00324	1.0640	.05320

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	173.98	.00027	.0145	.00121
Stddev	.00001	.36	.00007	.0093	.00019
%RSD	59.202	.20926	27.138	64.08	15.747

#1	.00003	174.23	.00022	.0080	.00135
#2	.00001	173.72	.00033	.0211	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.00169	2.3654	31.359	.00206
Stddev	.00018	.00002	.0008	.004	.00033
%RSD	20.694	1.3719	.03261	.01402	16.192

#1	.00098	.00167	2.3659	31.355	.00183
#2	.00073	.00171	2.3648	31.362	.00230

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-4-A Acquired: 10/27/2018 2:08:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	53.026	.21771	.00273	42.773	.00277
Stddev	.015	.00010	.00022	.182	.00009
%RSD	.02753	.04488	7.9323	.42469	3.2679

#1	53.036	.21764	.00257	42.901	.00270
#2	53.015	.21778	.00288	42.644	.00283

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00103	41.22	-.00232	.00001	5.6570
Stddev	.00032	.14	.00016	.00723	.0469
%RSD	31.069	.3316	6.9863	86501.	.82939

#1	.00125	41.31	-.00220	-.00511	5.6902
#2	.00080	41.12	-.00243	.00512	5.6239

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00101	.78269	.00089	-.00008	.00155
Stddev	.00020	.00284	.00003	.00073	.00011
%RSD	19.541	.36294	3.7978	876.55	6.8263

#1	.00115	.78470	.00087	.00043	.00162
#2	.00087	.78068	.00091	-.00060	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-4-A Acquired: 10/27/2018 2:08:49 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00324**
 Stddev .00073
 %RSD 22.422

#1 **.00273**
 #2 **.00375**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2439.2	1415.7	44152.	3440.9
Stddev	3.6	3.0	103.	8.8
%RSD	.14757	.21372	.23382	.25675

#1	2436.7	1413.6	44079.	3434.7
#2	2441.8	1417.8	44225.	3447.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.369%	85.178%	92.472%	93.084%
Range				

Sample Name: 480-143693-A-6-A Acquired: 10/27/2018 2:12:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	4.0248	.00535	.10319	.11751
Stddev	.00019	.0262	.00037	.00062	.00001
%RSD	38.725	.65194	6.8476	.59965	.00522

#1	-.00064	4.0434	.00509	.10363	.11750
#2	-.00036	4.0063	.00561	.10275	.11751

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	110.25	.00075	.0118	.00317
Stddev	.00002	.06	.00007	.0010	.00001
%RSD	5.5482	.05333	9.2326	8.125	.33076

#1	.00032	110.21	.00080	.0111	.00318
#2	.00035	110.29	.00070	.0125	.00316

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01192	.07312	11.096	3.5311	.00876
Stddev	.00004	.00021	.005	.0171	.00018
%RSD	.30818	.28635	.04727	.48574	2.0387

#1	.01194	.07298	11.100	3.5432	.00863
#2	.01189	.07327	11.092	3.5190	.00888

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-6-A Acquired: 10/27/2018 2:12:35 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	32.439	.84095	.00172	28.740	.00816
Stddev	.053	.00204	.00019	.017	.00005
%RSD	.16406	.24256	10.966	.06030	.66175

#1	32.476	.84239	.00159	28.752	.00812
#2	32.401	.83951	.00185	28.727	.00820

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3784	10.81	-.00282	-.00456	13.285
Stddev	.0044	.02	.00038	.00262	.001
%RSD	.31707	.1813	13.415	57.521	.00724

#1	1.3753	10.79	-.00309	-.00270	13.286
#2	1.3815	10.82	-.00256	-.00641	13.284

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17227	.17770	.13147	-.00008	.01040
Stddev	.00035	.00062	.00073	.00023	.00049
%RSD	.20265	.34623	.55379	304.62	4.7540

#1	.17202	.17814	.13198	.00009	.01005
#2	.17252	.17726	.13095	-.00024	.01075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-6-A Acquired: 10/27/2018 2:12:35 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.12070**
 Stddev .00001
 %RSD .00611

#1 **.12071**
 #2 **.12070**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2523.5	1456.3	44734.	3469.1
Stddev	2.8	3.4	105.	12.8
%RSD	.11202	.23630	.23504	.36769

#1	2525.5	1458.7	44808.	3478.1
#2	2521.5	1453.9	44659.	3460.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.319%	87.620%	93.691%	93.847%
Range				

Sample Name: 480-143693-A-7-A Acquired: 10/27/2018 2:16:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	3.8995	.01078	.88234	.20561
Stddev	.00077	.0179	.00254	.00046	.00035
%RSD	697.48	.45978	23.509	.05184	.16952

#1	.00044	3.9122	.01258	.88202	.20586
#2	-.00066	3.8869	.00899	.88266	.20537

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	195.87	.00154	.0266	.00395
Stddev	.00003	.32	.00001	.0022	.00008
%RSD	9.7925	.16427	.85479	8.360	2.0468

#1	.00033	195.65	.00153	.0282	.00401
#2	.00028	196.10	.00155	.0250	.00390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02267	.08661	41.412	10.335	.05089
Stddev	.00032	.00042	.001	.061	.00030
%RSD	1.4040	.48849	.00311	.59045	.58098

#1	.02244	.08691	41.412	10.292	.05068
#2	.02289	.08631	41.413	10.379	.05110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-7-A Acquired: 10/27/2018 2:16:20 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	45.735	.75077	.00239	18.048	.02244
Stddev	.064	.00081	.00004	.033	.00011
%RSD	.13999	.10769	1.8354	.18342	.48981

#1	45.689	.75020	.00236	18.071	.02252
#2	45.780	.75134	.00243	18.024	.02236

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.91608	19.41	-.00289	.00025	16.837
Stddev	.00147	.02	.00005	.00302	.059
%RSD	.16052	.1140	1.7020	1202.3	.34979

#1	.91504	19.39	-.00293	.00238	16.796
#2	.91712	19.42	-.00286	-.00188	16.879

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06746	.75030	.13387	-.00089	.01116
Stddev	.00187	.00262	.00348	.00100	.00010
%RSD	2.7755	.34961	2.5982	112.50	.85679

#1	.06878	.75216	.13633	-.00018	.01109
#2	.06614	.74845	.13141	-.00160	.01122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-7-A Acquired: 10/27/2018 2:16:20 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.41324**
 Stddev .00129
 %RSD .31292

#1 **.41232**
 #2 **.41415**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2455.0	1418.4	44413.	3431.9
Stddev	3.8	.4	50.	1.9
%RSD	.15435	.02713	.11290	.05477

#1	2457.7	1418.6	44449.	3433.3
#2	2452.3	1418.1	44378.	3430.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.921%	85.338%	93.020%	92.841%
Range				

Sample Name: 480-143693-A-8-A Acquired: 10/27/2018 2:20:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.02085	.00353	.41355	.08806
Stddev	.00045	.00363	.00009	.00175	.00029
%RSD	160.98	17.396	2.4867	.42334	.33099

#1	.00004	.01828	.00347	.41479	.08826
#2	-.00060	.02341	.00360	.41231	.08785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	152.12	.00017	-.0059	.00142
Stddev	.00001	.47	.00013	.0085	.00013
%RSD	25.509	.30796	76.510	142.1	8.8998

#1	.00005	151.79	.00008	.0000	.00133
#2	.00004	152.45	.00026	-.0119	.00151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00027	5.7678	4.3881	.00462
Stddev	.00012	.00008	.0091	.0360	.00028
%RSD	40.107	28.327	.15752	.81931	6.1033

#1	.00040	.00022	5.7614	4.3627	.00482
#2	.00022	.00033	5.7742	4.4135	.00442

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-8-A Acquired: 10/27/2018 2:20:04 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	40.517	.81898	.00028	34.331	.00087
Stddev	.044	.00170	.00008	.008	.00009
%RSD	.10888	.20737	28.870	.02269	10.624

#1	40.548	.82018	.00023	34.337	.00081
#2	40.485	.81778	.00034	34.326	.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00083	5.478	-.00498	-.00724	8.1974
Stddev	.00116	.002	.00051	.00226	.0203
%RSD	139.06	.0431	10.304	31.258	.24718

#1	-.00001	5.476	-.00534	-.00564	8.2117
#2	-.00166	5.480	-.00461	-.00884	8.1830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.43446	.00011	-.00017	.00018
Stddev	.00085	.00029	.00032	.00025	.00022
%RSD	651.21	.06715	294.43	141.91	127.14

#1	-.00047	.43466	.00033	-.00035	.00034
#2	.00073	.43425	-.00012	.00000	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-8-A Acquired: 10/27/2018 2:20:04 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00210**
 Stddev .00006
 %RSD 3.0461

#1 **.00205**
 #2 **.00214**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2488.1	1414.6	44895.	3456.8
Stddev	2.0	.2	145.	12.9
%RSD	.07910	.01531	.32274	.37303

#1	2489.5	1414.4	44792.	3447.7
#2	2486.7	1414.7	44997.	3465.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.079%	85.108%	94.028%	93.514%
Range				

Sample Name: 480-143693-A-9-A Acquired: 10/27/2018 2:23:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.52686	.01275	.33456	.10946
Stddev	.00065	.01475	.00013	.00172	.00027
%RSD	534.01	2.8002	1.0255	.51551	.24711

#1	.00058	.51643	.01266	.33334	.10965
#2	-.00034	.53729	.01285	.33578	.10927

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	143.29	.00011	-.0033	.00031
Stddev	.00002	.77	.00021	.0029	.00016
%RSD	18.223	.54025	188.03	89.05	51.718

#1	.00007	142.74	-.00004	-.0012	.00043
#2	.00010	143.83	.00027	-.0053	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00126	.00026	8.1817	5.3747	.00776
Stddev	.00001	.00010	.0345	.0169	.00040
%RSD	.76849	40.629	.42197	.31376	5.1998

#1	.00127	.00033	8.1573	5.3628	.00804
#2	.00125	.00018	8.2061	5.3866	.00747

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-9-A Acquired: 10/27/2018 2:23:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	43.033	.35915	.00117	41.406	.00070
Stddev	.117	.00052	.00023	.188	.00017
%RSD	.27194	.14432	19.377	.45373	24.402

#1	43.116	.35952	.00132	41.273	.00082
#2	42.950	.35879	.00101	41.538	.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	7.070	-.00395	-.00718	9.9554
Stddev	.00273	.006	.00019	.00556	.0078
%RSD	950.69	.0824	4.8919	77.365	.07857

#1	.00222	7.066	-.00382	-.00325	9.9498
#2	-.00164	7.074	-.00409	-.01111	9.9609

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.47361	.01400	-.00014	.00114
Stddev	.00005	.00178	.00121	.00029	.00020
%RSD	280.78	.37682	8.6194	202.15	17.104

#1	-.00002	.47235	.01315	-.00034	.00128
#2	.00005	.47487	.01485	.00006	.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-9-A Acquired: 10/27/2018 2:23:50 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00322**
 Stddev .00048
 %RSD 14.908

#1 **.00288**
 #2 **.00356**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2481.7	1405.0	44335.	3421.0
Stddev	1.3	.2	199.	22.8
%RSD	.05120	.01460	.44896	.66507

#1	2480.8	1405.1	44194.	3437.1
#2	2482.6	1404.8	44476.	3404.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.855%	84.532%	92.856%	92.545%
Range				

Sample Name: 480-143693-A-10-A Acquired: 10/27/2018 2:27:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	-.00036	.00002	.00153	.00013
Stddev	.00015	.00222	.00040	.00003	.00000
%RSD	53.381	612.95	1802.1	1.9332	3.5904

#1	.00038	.00121	-.00026	.00155	.00012
#2	.00017	-.00193	.00030	.00151	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.05995	-.00003	.0096	-.00006
Stddev	.00000	.00028	.00008	.0124	.00010
%RSD	.85949	.47229	267.22	129.9	164.47

#1	-.00002	.06015	-.00008	.0008	.00001
#2	-.00002	.05975	.00003	.0183	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00059	.00068	.02346	.00055
Stddev	.00030	.00000	.00220	.01872	.00037
%RSD	117.70	.08373	321.70	79.774	67.962

#1	.00004	.00059	-.00087	.03670	.00081
#2	.00047	.00059	.00224	.01023	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-10-A Acquired: 10/27/2018 2:27:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00586	-.00030	.00008	.26112	-.00015
Stddev	.00146	.00003	.00012	.00426	.00003
%RSD	24.975	10.953	140.26	1.6300	19.307

#1	.00689	-.00028	.00017	.25811	-.00013
#2	.00483	-.00033	.00000	.26413	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.0152	-.00179	-.00067	-.02228
Stddev	.00058	.0016	.00252	.00063	.00506
%RSD	104.94	10.35	140.73	94.838	22.692

#1	-.00014	.0164	-.00357	-.00022	-.02585
#2	-.00096	.0141	-.00001	-.00111	-.01870

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.00015	.00003	-.00006	.00011
Stddev	.00050	.00002	.00001	.00114	.00003
%RSD	65.164	12.215	50.623	1931.1	27.422

#1	.00042	.00014	.00004	-.00087	.00008
#2	.00113	.00016	.00002	.00075	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143693-A-10-A Acquired: 10/27/2018 2:27:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00248**
 Stddev .00079
 %RSD 32.014

#1 **.00192**
 #2 **.00304**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2765.7	1511.8	47302.	3550.5
Stddev	.3	1.8	87.	2.5
%RSD	.01159	.12183	.18369	.06943

#1	2765.9	1510.5	47363.	3552.3
#2	2765.5	1513.1	47240.	3548.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.795%	90.962%	99.069%	96.049%
Range				

Sample Name: 480-143639-E-1-A Acquired: 10/27/2018 2:31:28 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.08838	-.00109	.16000	.02150
Stddev	.00013	.01481	.00092	.00022	.00004
%RSD	25.231	16.760	84.613	.13545	.20335

#1	-.00060	.09886	-.00174	.16015	.02147
#2	-.00042	.07791	-.00044	.15985	.02153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	82.883	.00013	-.0068	.01369
Stddev	.00005	.022	.00009	.0123	.00011
%RSD	92.674	.02703	71.519	180.0	.80576

#1	.00009	82.899	.00007	-.0155	.01361
#2	.00002	82.867	.00020	.0019	.01376

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00208	.81310	10.803	.02744
Stddev	.00017	.00053	.00176	.033	.00044
%RSD	401.07	25.433	.21592	.30462	1.5861

#1	-.00017	.00171	.81186	10.780	.02713
#2	.00008	.00245	.81434	10.827	.02775

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143639-E-1-A Acquired: 10/27/2018 2:31:28 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.160	7.1040	-.00013	23.826	.04257
Stddev	.077	.0270	.00021	.021	.00040
%RSD	.13883	.38056	169.09	.08816	.93407

#1	55.105	7.0849	.00002	23.812	.04229
#2	55.214	7.1231	-.00028	23.841	.04285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	F 114.1	-.00214	-.00139	4.0142
Stddev	.00186	.3	.00057	.00112	.0202
%RSD	333.42	.2258	26.671	80.376	.50239

#1	-.00188	114.3	-.00174	-.00218	4.0285
#2	.00076	113.9	-.00255	-.00060	3.9999

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00094	.38691	.00099	.00083	.00002
Stddev	.00011	.00066	.00017	.00215	.00014
%RSD	12.117	.16995	16.803	259.20	729.57

#1	-.00086	.38645	.00111	.00235	.00012
#2	-.00102	.38738	.00087	-.00069	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143639-E-1-A Acquired: 10/27/2018 2:31:28 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00750**
 Stddev .00004
 %RSD .53864

#1 **.00747**
 #2 **.00753**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2549.2	1448.4	44929.	3461.1
Stddev	2.2	4.3	94.	1.1
%RSD	.08578	.29703	.21006	.03232

#1	2547.6	1445.4	44995.	3460.3
#2	2550.7	1451.5	44862.	3461.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.216%	87.147%	94.099%	93.630%
Range				

Sample Name: 480-143639-E-2-A Acquired: 10/27/2018 2:35:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	.07095	.00006	.19549	.04561
Stddev	.00009	.01094	.00080	.00020	.00000
%RSD	23.560	15.425	1361.3	.10346	.00677

#1	-.00045	.07869	-.00051	.19564	.04561
#2	-.00032	.06321	.00062	.19535	.04561

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	108.76	.00004	.0224	.00078
Stddev	.00004	.19	.00002	.0182	.00007
%RSD	249.28	.17903	45.667	81.37	9.0230

#1	.00001	108.90	.00003	.0352	.00083
#2	-.00004	108.62	.00006	.0095	.00073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00653	.09618	17.217	.00405
Stddev	.00031	.00020	.00025	.036	.00043
%RSD	101.91	3.0758	.26236	.21090	10.725

#1	.00008	.00639	.09636	17.242	.00375
#2	.00052	.00667	.09600	17.191	.00436

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143639-E-2-A Acquired: 10/27/2018 2:35:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.105	.01265	.00035	67.963	.00992
Stddev	.012	.00001	.00014	.071	.00033
%RSD	.03886	.09136	39.351	.10444	3.3190

#1	30.113	.01264	.00045	68.013	.01016
#2	30.097	.01265	.00026	67.913	.00969

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	86.51	-.00254	-.00150	1.9024
Stddev	.00141	.29	.00144	.00149	.0164
%RSD	181.26	.3357	56.741	99.742	.86414

#1	.00022	86.71	-.00152	-.00044	1.9140
#2	-.00177	86.30	-.00355	-.00256	1.8908

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.29552	.00124	.00095	.00017
Stddev	.00149	.00001	.00034	.00004	.00034
%RSD	524.46	.00420	27.078	4.5278	198.21

#1	-.00077	.29553	.00148	.00098	-.00007
#2	.00134	.29551	.00101	.00092	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143639-E-2-A Acquired: 10/27/2018 2:35:21 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00295**
 Stddev .00034
 %RSD 11.595

#1 **.00320**
 #2 **.00271**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2511.0	1432.0	44477.	3412.1
Stddev	.5	2.1	269.	2.2
%RSD	.01970	.14396	.60485	.06554

#1	2510.6	1430.5	44287.	3413.7
#2	2511.3	1433.5	44667.	3410.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.878%	86.158%	93.154%	92.305%
Range				

Sample Name: 480-143641-D-1-B Acquired: 10/27/2018 2:39:10 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.81079	.00025	.01962	.04128
Stddev	.00044	.00361	.00039	.00037	.00010
%RSD	96.349	.44566	155.00	1.8988	.25182

#1	-.00014	.80824	.00053	.01988	.04136
#2	-.00076	.81335	-.00002	.01936	.04121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	95.257	.00257	.0056	.00034
Stddev	.00008	.443	.00007	.0118	.00015
%RSD	274.30	.46526	2.7525	209.1	44.435

#1	.00009	94.943	.00252	-.0027	.00045
#2	-.00003	95.570	.00262	.0140	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00076	.00117	.89199	1.6728	.00232
Stddev	.00004	.00028	.00509	.0209	.00012
%RSD	5.5656	24.111	.57113	1.2469	5.2153

#1	.00073	.00137	.88838	1.6876	.00223
#2	.00079	.00097	.89559	1.6581	.00240

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-1-B Acquired: 10/27/2018 2:39:10 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.531	.32311	.00044	28.954	.00145
Stddev	.021	.00036	.00010	.037	.00007
%RSD	.13643	.11158	23.570	.12667	4.6194

#1	15.516	.32336	.00052	28.928	.00150
#2	15.546	.32285	.00037	28.980	.00140

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	7.169	-.00346	-.00304	4.3173
Stddev	.00018	.003	.00049	.00097	.0134
%RSD	84.056	.0413	14.299	31.993	.31057

#1	-.00009	7.167	-.00381	-.00373	4.3268
#2	-.00034	7.171	-.00311	-.00236	4.3078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00123	.18511	.00918	.00080	.00095
Stddev	.00055	.00022	.00018	.00033	.00007
%RSD	44.524	.11692	1.9534	41.622	7.0981

#1	.00084	.18526	.00905	.00057	.00090
#2	.00161	.18496	.00930	.00104	.00100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-1-B Acquired: 10/27/2018 2:39:10 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00576**
 Stddev .00023
 %RSD 3.9403

#1 **.00560**
 #2 **.00592**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2564.8	1441.0	45245.	3483.3
Stddev	3.3	3.0	73.	21.8
%RSD	.12697	.20537	.16148	.62659

#1	2567.1	1443.1	45193.	3498.7
#2	2562.5	1438.9	45297.	3467.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.764%	86.699%	94.762%	94.229%
Range				

Sample Name: CCV-4954075 Acquired: 10/27/2018 2:42:58 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50015	23.746	.49516	.50938	.50092	.46201	24.375	.53746
Stddev	.00074	.186	.00174	.00012	.00061	.00085	.049	.00071
%RSD	.14699	.78514	.35143	.02406	.12203	.18415	.20090	.13160
#1	.50067	23.615	.49393	.50947	.50049	.46141	24.340	.53696
#2	.49963	23.878	.49639	.50929	.50135	.46261	24.410	.53796

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156	.49551	.48883	.49257	22.787	24.041	.47294	24.132
Stddev	.0020	.00007	.00079	.00026	.054	.147	.00286	.041
%RSD	12.76	.01383	.16123	.05268	.23623	.61144	.60520	.16999
#1	.0170	.49546	.48827	.49276	22.749	23.937	.47091	24.103
#2	.0142	.49556	.48938	.49239	22.825	24.145	.47496	24.161

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49165	.50826	23.377	.47013	.50142	27.48	.52231	.50778
Stddev	.00065	.00063	.058	.00088	.00200	.09	.00009	.00002
%RSD	.13300	.12437	.24637	.18637	.39986	.3234	.01676	.00328
#1	.49118	.50870	23.337	.47074	.50000	27.41	.52237	.50779
#2	.49211	.50781	23.418	.46951	.50284	27.54	.52224	.50777

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/27/2018 2:42:58 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.284	.50982	.48934	.48624	.46437	.48208	.48706
Stddev	.230	.00005	.00154	.00075	.00403	.00045	.00064
%RSD	.94909	.01008	.31528	.15351	.86678	.09386	.13163

#1	24.121	.50986	.48825	.48572	.46722	.48240	.48751
#2	24.447	.50979	.49043	.48677	.46152	.48176	.48660

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2618.9	1467.4	45825.	3455.7
Stddev	1.3	1.5	160.	7.7
%RSD	.04906	.10236	.34862	.22326

#1	2618.0	1468.5	45938.	3461.2
#2	2619.9	1466.4	45712.	3450.3

Sample Name: CCB-4957862 Acquired: 10/27/2018 2:46:41 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00118	.00115	.00057	.00002	.00010	.00004	-.00006
Stddev	.00035	.00171	.00035	.00006	.00000	.00004	.00143	.00013
%RSD	2606.0	144.54	30.004	9.9162	29.921	39.069	3526.2	230.25

#1	.00026	.00239	.00091	.00053	.00002	.00007	-.00097	.00004
#2	-.00023	-.00003	.00140	.00061	.00001	.00013	.00105	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0068	-.00018	.00001	.00009	-.00035	.01118	-.00035	.00036
Stddev	.0066	.00003	.00017	.00023	.00142	.02038	.00002	.00129
%RSD	96.45	17.150	1750.6	267.08	410.06	182.24	6.4269	356.21

#1	.0022	-.00016	-.00011	.00025	-.00135	.02559	-.00034	.00128
#2	.0115	-.00021	.00013	-.00008	.00066	-.00323	-.00037	-.00055

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00078	.05913	-.00011	-.00116	.0131	-.00033	-.00292
Stddev	.00002	.00010	.00125	.00008	.00062	.0014	.00050	.00130
%RSD	10.434	12.663	2.1126	75.752	53.909	10.73	153.37	44.569

#1	.00020	.00085	.05825	-.00005	-.00072	.0141	-.00068	-.00384
#2	.00024	.00071	.06001	-.00017	-.00160	.0121	.00003	-.00200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 2:46:41 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00375	.00061	.00002	-.00009	-.00037	.00004	.00044
Stddev	.00037	.00068	.00010	.00014	.00051	.00014	.00005
%RSD	9.9870	111.56	424.55	151.50	139.23	329.20	10.723

#1	.00402	.00109	-.00005	-.00018	-.00001	.00014	.00047
#2	.00349	.00013	.00009	.00001	-.00073	-.00006	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2796.6	1522.3	47569.	3503.7
Stddev	.2	1.8	98.	6.8
%RSD	.00837	.12077	.20560	.19393

#1	2796.8	1521.0	47500.	3508.5
#2	2796.4	1523.6	47638.	3498.9

Sample Name: CCVL-4954076 Acquired: 10/27/2018 2:50:33 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00574	.19601	.01650	.02074	.00207	.00191	.49866	.00214
Stddev	.00000	.00930	.00005	.00010	.00000	.00002	.00568	.00019
%RSD	.06227	4.7471	.27632	.47012	.08123	1.0483	1.1386	8.6679
#1	.00573	.18943	.01653	.02067	.00206	.00189	.49464	.00227
#2	.00574	.20259	.01647	.02081	.00207	.00192	.50267	.00201

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0241	.00381	.00401	.00943	.04622	.46226	.02758	.20312
Stddev	.0049	.00009	.00006	.00047	.00013	.01291	.00001	.00027
%RSD	20.31	2.2940	1.4266	4.9494	.28949	2.7919	.03869	.13100
#1	.0276	.00387	.00405	.00976	.04613	.47139	.02757	.20331
#2	.0207	.00375	.00396	.00910	.04632	.45313	.02758	.20293

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00281	.00994	.96457	.00932	.00973	.2190	.01802	.02347
Stddev	.00002	.00007	.00488	.00015	.00061	.0026	.00050	.00326
%RSD	.86048	.68129	.50558	1.6171	6.2913	1.165	2.7661	13.875
#1	.00279	.00989	.96802	.00922	.00930	.2172	.01837	.02116
#2	.00282	.00998	.96112	.00943	.01017	.2208	.01767	.02577

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/27/2018 2:50:33 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45099	.00935	.00484	.00435	.01770	.00498	.01090
Stddev	.00120	.00034	.00003	.00035	.00097	.00008	.00025
%RSD	.26695	3.6405	.66245	8.0326	5.5069	1.5779	2.2789

#1	.45184	.00911	.00487	.00410	.01839	.00492	.01072
#2	.45013	.00959	.00482	.00460	.01701	.00503	.01107

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.0	1530.9	46940.	3459.8
Stddev	5.4	3.6	161.	5.0
%RSD	.19340	.23383	.34270	.14334

#1	2763.3	1528.4	47054.	3456.3
#2	2770.8	1533.4	46826.	3463.3

Sample Name: 480-143641-D-2-B Acquired: 10/27/2018 2:54:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.07220	.00338	.06193	.03712
Stddev	.00018	.01457	.00211	.00021	.00000
%RSD	166.47	20.176	62.546	.33145	.00467

#1	-.00023	.08249	.00188	.06179	.03712
#2	.00002	.06190	.00487	.06208	.03713

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	78.032	.00034	.0030	.00113
Stddev	.00007	.126	.00001	.0246	.00007
%RSD	5578.3	.16207	2.2939	828.1	6.0343

#1	-.00005	78.121	.00033	-.0144	.00117
#2	.00005	77.942	.00035	.0203	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00078	.43637	3.1039	.00439
Stddev	.00003	.00040	.00279	.0367	.00008
%RSD	72.549	51.860	.63919	1.1836	1.7942

#1	.00002	.00049	.43440	3.0779	.00444
#2	.00006	.00106	.43834	3.1298	.00433

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-2-B Acquired: 10/27/2018 2:54:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.471	2.2773	.00023	9.0021	.00119
Stddev	.033	.0044	.00008	.0261	.00045
%RSD	.21192	.19276	35.707	.28960	38.058

#1	15.494	2.2804	.00029	9.0206	.00087
#2	15.448	2.2742	.00017	8.9837	.00151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	4.836	-.00437	-.00139	3.8041
Stddev	.00064	.008	.00030	.00098	.0036
%RSD	182.28	.1675	6.8021	70.402	.09573

#1	.00010	4.842	-.00458	-.00209	3.8067
#2	-.00081	4.831	-.00416	-.00070	3.8016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.16101	.00070	-.00049	.00007
Stddev	.00000	.00013	.00009	.00081	.00011
%RSD	.79528	.08080	13.217	166.07	158.31

#1	-.00043	.16092	.00077	.00009	-.00001
#2	-.00042	.16110	.00064	-.00107	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-2-B Acquired: 10/27/2018 2:54:24 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00272**
 Stddev .00009
 %RSD 3.4210

#1 **.00279**
 #2 **.00265**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2605.3	1461.4	45519.	3453.4
Stddev	2.5	.3	25.	4.5
%RSD	.09444	.02091	.05389	.12897

#1	2607.0	1461.6	45501.	3450.2
#2	2603.5	1461.2	45536.	3456.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.180%	87.928%	95.335%	93.421%
Range				

Sample Name: 480-143641-D-3-B Acquired: 10/27/2018 2:58:12 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.43858	.00694	.01987	.08416
Stddev	.00021	.01998	.00389	.00012	.00021
%RSD	177.45	4.5553	56.111	.60895	.24811

#1	.00003	.45271	.00969	.01996	.08402
#2	-.00026	.42445	.00418	.01979	.08431

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	37.747	.00021	.0013	.00052
Stddev	.00007	.132	.00001	.0067	.00006
%RSD	196.21	.35066	4.2755	510.1	11.953

#1	-.00001	37.654	.00020	.0060	.00047
#2	.00008	37.841	.00022	-.0034	.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00103	.00233	.56649	2.1338	.01334
Stddev	.00026	.00007	.00312	.0316	.00064
%RSD	24.873	3.2070	.55114	1.4830	4.8041

#1	.00085	.00228	.56428	2.1562	.01288
#2	.00121	.00239	.56870	2.1115	.01379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-3-B Acquired: 10/27/2018 2:58:12 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.565	.02497	.00238	6.3212	.00051
Stddev	.027	.00012	.00010	.0362	.00022
%RSD	.21810	.46856	4.1046	.57252	42.642

#1	12.545	.02489	.00245	6.2956	.00035
#2	12.584	.02505	.00231	6.3468	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	7.238	-.00186	-.00510	6.5920
Stddev	.00066	.011	.00063	.00090	.0020
%RSD	85.799	.1536	33.957	17.750	.03048

#1	-.00123	7.246	-.00230	-.00446	6.5906
#2	-.00030	7.231	-.00141	-.00574	6.5934

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.44953	.00411	.00041	.00068
Stddev	.00052	.00282	.00029	.00054	.00003
%RSD	128.88	.62719	6.9606	132.07	4.9564

#1	.00076	.44754	.00431	.00079	.00065
#2	.00004	.45153	.00391	.00003	.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-3-B Acquired: 10/27/2018 2:58:12 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00305**
Stddev .00011
%RSD 3.4558

#1 **.00313**
#2 **.00298**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2668.7	1482.1	46002.	3489.9
Stddev	1.4	.0	150.	24.3
%RSD	.05059	.00113	.32603	.69567

#1	2667.8	1482.1	46108.	3507.0
#2	2669.7	1482.1	45895.	3472.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.400%	89.172%	96.346%	94.408%
Range				

Sample Name: 480-143641-D-4-B Acquired: 10/27/2018 3:01:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.05523	-.00032	.33599	.39644
Stddev	.00016	.00170	.00153	.00048	.00236
%RSD	148.77	3.0745	472.69	.14363	.59633

#1	-.00022	.05403	-.00141	.33565	.39812
#2	.00001	.05643	.00076	.33633	.39477

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	27.213	.00028	.0091	.00001
Stddev	.00007	.014	.00002	.0016	.00001
%RSD	141.81	.05143	5.3917	17.37	78.670

#1	-.00000	27.203	.00029	.0080	.00001
#2	.00010	27.223	.00027	.0102	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00165	5.3422	2.0960	.04645
Stddev	.00019	.00006	.0021	.0187	.00017
%RSD	101.77	3.6259	.03909	.88980	.35906

#1	.00032	.00160	5.3407	2.1092	.04657
#2	.00005	.00169	5.3436	2.0828	.04634

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-4-B Acquired: 10/27/2018 3:01:59 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.1205	.21071	.00173	37.720	.00064
Stddev	.0071	.00029	.00022	.093	.00000
%RSD	.08785	.13740	12.883	.24566	.37253

#1	8.1155	.21092	.00157	37.654	.00064
#2	8.1256	.21051	.00188	37.785	.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00108	2.057	-.00229	-.00403	2.3236
Stddev	.00085	.004	.00043	.00091	.0187
%RSD	78.457	.2151	18.585	22.620	.80636

#1	-.00168	2.053	-.00259	-.00467	2.3103
#2	-.00048	2.060	-.00199	-.00338	2.3368

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	1.0400	.00008	.00058	-.00005
Stddev	.00061	.0027	.00011	.00015	.00025
%RSD	268.44	.25798	144.22	25.216	542.63

#1	.00066	1.0381	-.00000	.00047	-.00022
#2	-.00021	1.0419	.00016	.00068	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-4-B Acquired: 10/27/2018 3:01:59 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00469**
 Stddev .00030
 %RSD 6.3411

#1 **.00491**
 #2 **.00448**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.1	1476.4	45810.	3437.4
Stddev	3.3	2.7	85.	10.6
%RSD	.12317	.18275	.18577	.30770

#1	2641.4	1478.3	45750.	3444.9
#2	2636.9	1474.5	45870.	3430.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.365%	88.831%	95.946%	92.990%
Range				

Sample Name: 480-143641-D-5-D Acquired: 10/27/2018 3:05:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.02879	.02450	F -.11023	F 32.732	.41957
Stddev	.00333	.00449	.01189	.098	.00151
%RSD	11.559	18.326	10.783	.30065	.35898

#1	-.03114	.02767	-.11863	32.801	.41850
#2	-.02643	.02132	-.10182	32.662	.42063

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit	2.0000		4.5000	18.000	
Low Limit	-.00600		-.01500	-.02000	

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	^ *****	F -.00311	.1551	.01644
Stddev	.00004	----	.00140	.1903	.00206
%RSD	5.7701	----	44.899	122.7	12.509

#1	-.00059	^ ----	-.00410	.2897	.01790
#2	-.00063	^ ----	-.00212	.0206	.01499

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			4.5000		
Low Limit			-.00200		

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.00484	k .36153	2.8425	F 4360.1	F 84.102
Stddev	.00024	.00118	.0016	12.3	.370
%RSD	4.9442	.32733	.05639	.28163	.43945

#1	-.00501	k .36236	2.8436	4368.8	84.364
#2	-.00467	k .36069	2.8414	4351.5	83.841

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit	9.0000			540.00	45.000
Low Limit	-.00400			-.50000	-.03000

Sample Name: 480-143641-D-5-D Acquired: 10/27/2018 3:05:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	13.898	.37452	.00524	F 1915.7	-.00110
Stddev	.019	.00079	.00069	6.5	.00025
%RSD	.13745	.21033	13.259	.34084	23.105

#1	13.911	.37397	.00573	1911.1	-.00092
#2	13.884	.37508	.00475	1920.3	-.00128

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.25833	13.02	.01532	F -.07947	3.7368
Stddev	.01207	.08	.01487	.01768	.0453
%RSD	4.6704	.6059	97.034	22.242	1.2119

#1	-.24980	13.08	.02584	-.06697	3.7048
#2	-.26686	12.97	.00481	-.09197	3.7688

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	110.00			55.000	
Low Limit	-.01000			-.02500	

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.03106	^ *****	F -.43087	F -.02984	F -.00757
Stddev	.00623	----	.00711	.00259	.00066
%RSD	20.063	----	1.6497	8.6749	8.6519

#1	-.03547	^ ----	-.42585	-.02801	-.00711
#2	-.02666	^ ----	-.43590	-.03167	-.00803

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit	3.6000		18.000	18.000	4.5000
Low Limit	-.01000		-.00500	-.02000	-.00500

Sample Name: 480-143641-D-5-D Acquired: 10/27/2018 3:05:52 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **1.1557**
Stddev .0025
%RSD .21604

#1 1.1540
#2 1.1575

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	587.35	486.90	15594.	1754.3
Stddev	1.95	.50	29.	6.7
%RSD	.33185	.10309	.18289	.38314

#1	585.97	486.55	15614.	1749.5
#2	588.72	487.26	15574.	1759.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	20.556%	29.295%	32.661%	47.456%
Range				

Sample Name: 480-143641-D-6-B Acquired: 10/27/2018 3:09:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.04935	-.01107	F -.12714	F 51.491	.72276
Stddev	.00257	.07928	.03156	.903	.00025
%RSD	5.2043	715.87	24.820	1.7539	.03516

#1	-.04753	-.06713	-.10483	52.129	.72258
#2	-.05117	.04498	-.14946	50.852	.72294

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit	2.0000		4.5000	18.000	
Low Limit	-.00600		-.01500	-.02000	

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00137	^ *****	F -.00644	.1449	.02708
Stddev	.00005	----	.00117	.1375	.00161
%RSD	3.3748	----	18.226	94.91	5.9629

#1	-.00140	^ ----	-.00727	.0476	.02823
#2	-.00133	^ ----	-.00561	.2421	.02594

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			4.5000		
Low Limit			-.00200		

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.00778	k .31166	1.5318	F 7160.9	F 151.38
Stddev	.00080	.01134	.0102	32.8	.30
%RSD	10.238	3.6384	.66652	.45828	.19691

#1	-.00835	k .30364	1.5245	7137.7	151.17
#2	-.00722	k .31968	1.5390	7184.1	151.59

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit	9.0000			540.00	45.000
Low Limit	-.00400			-.50000	-.03000

Sample Name: 480-143641-D-6-B Acquired: 10/27/2018 3:09:50 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.062	.30951	.00746	F 3295.1	-.00227
Stddev	.029	.00068	.00117	14.6	.00229
%RSD	.20376	.21835	15.635	.44451	100.69

#1	14.082	.30999	.00663	3284.8	-.00065
#2	14.042	.30903	.00828	3305.5	-.00389

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.38897	16.65	.02851	F -.15544	3.2356
Stddev	.01706	.23	.00075	.04929	.0282
%RSD	4.3850	1.356	2.6478	31.708	.87234

#1	-.37691	16.81	.02905	-.19029	3.2555
#2	-.40103	16.49	.02798	-.12059	3.2156

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	110.00			55.000	
Low Limit	-.01000			-.02500	

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.09036	^ *****	F -1.0118	F -.02966	F -.01377
Stddev	.00950	----	.0155	.01132	.00267
%RSD	10.513	----	1.5328	38.159	19.380

#1	-.09708	^ ----	-1.0228	-.02166	-.01566
#2	-.08364	^ ----	-1.0008	-.03766	-.01188

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail
High Limit	3.6000		18.000	18.000	4.5000
Low Limit	-.01000		-.00500	-.02000	-.00500

Sample Name: 480-143641-D-6-B Acquired: 10/27/2018 3:09:50 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.6469**
 Stddev .0076
 %RSD .45919

#1 1.6415
 #2 1.6522

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	413.90	377.22	11968.	1420.1
Stddev	11.82	4.41	20.	2.4
%RSD	2.8547	1.1698	.16321	.17138

#1	405.54	374.10	11981.	1421.8
#2	422.25	380.34	11954.	1418.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	14.486%	22.696%	25.065%	38.416%
Range				

Sample Name: 480-143641-D-9-B Acquired: 10/27/2018 3:13:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	2.4913	.01469	.02850	.08713
Stddev	.00017	.0088	.00166	.00132	.00005
%RSD	198.94	.35490	11.271	4.6139	.05440

#1	.00004	2.4975	.01352	.02943	.08716
#2	-.00021	2.4850	.01586	.02757	.08709

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	52.209	.00127	-.0003	.00092
Stddev	.00004	.083	.00002	.0085	.00006
%RSD	31.271	.15812	1.6510	2661.	6.3690

#1	.00016	52.267	.00129	-.0063	.00088
#2	.00010	52.150	.00126	.0057	.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00386	.00280	3.0312	2.9276	.01775
Stddev	.00003	.00027	.0012	.0376	.00044
%RSD	.66998	9.7932	.04085	1.2828	2.5041

#1	.00384	.00261	3.0321	2.9542	.01807
#2	.00388	.00300	3.0304	2.9011	.01744

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-9-B Acquired: 10/27/2018 3:13:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.178	.14272	.00071	5.7176	.00293
Stddev	.030	.00036	.00030	.0272	.00023
%RSD	.17335	.25542	42.116	.47543	7.9439

#1	17.199	.14298	.00050	5.7368	.00310
#2	17.157	.14246	.00093	5.6984	.00277

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00127	6.850	-.00408	-.00161	8.9600
Stddev	.00004	.004	.00187	.00113	.0480
%RSD	3.3293	.0547	45.779	69.981	.53616

#1	.00124	6.852	-.00540	-.00241	8.9260
#2	.00130	6.847	-.00276	-.00082	8.9940

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.11599	.02205	-.00019	.00333
Stddev	.00059	.00138	.00237	.00121	.00012
%RSD	132.09	1.1889	10.758	644.87	3.7170

#1	.00003	.11696	.02373	-.00104	.00324
#2	.00086	.11501	.02037	.00067	.00342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-9-B Acquired: 10/27/2018 3:13:48 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01168**
 Stddev .00021
 %RSD 1.7597

#1 **.01183**
 #2 **.01154**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2630.6	1468.1	45937.	3459.4
Stddev	5.7	2.7	36.	3.8
%RSD	.21596	.18471	.07874	.11074

#1	2634.6	1470.0	45911.	3456.7
#2	2626.6	1466.1	45963.	3462.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.065%	88.328%	96.211%	93.584%
Range				

Sample Name: 480-143641-D-10-B Acquired: 10/27/2018 3:17:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.52303	.00132	.02468	.01484
Stddev	.00014	.00742	.00125	.00046	.00003
%RSD	1865.4	1.4185	95.014	1.8515	.22696

#1	.00011	.51779	.00043	.02500	.01482
#2	-.00009	.52828	.00221	.02436	.01487

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	51.748	.00012	.0098	.00002
Stddev	.00007	.111	.00008	.0037	.00003
%RSD	84.964	.21357	65.942	37.90	115.09

#1	.00003	51.670	.00017	.0072	.00004
#2	.00013	51.826	.00006	.0125	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.00067	.47592	2.0570	.00614
Stddev	.00014	.00023	.00113	.0166	.00009
%RSD	22.179	35.078	.23719	.80777	1.4705

#1	.00054	.00083	.47672	2.0688	.00620
#2	.00074	.00050	.47512	2.0453	.00607

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-10-B Acquired: 10/27/2018 3:17:36 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.278	.05977	.00019	2.5826	.00038
Stddev	.018	.00028	.00022	.0009	.00007
%RSD	.15887	.46442	117.27	.03567	16.922

#1	11.266	.05957	.00003	2.5820	.00043
#2	11.291	.05996	.00034	2.5833	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	2.732	-.00396	-.00083	4.5022
Stddev	.00040	.007	.00039	.00100	.0337
%RSD	81.718	.2417	9.8698	119.63	.74948

#1	-.00020	2.727	-.00423	-.00013	4.4784
#2	-.00076	2.736	-.00368	-.00154	4.5261

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.08886	.00770	.00045	.00057
Stddev	.00001	.00005	.00074	.00125	.00025
%RSD	506.00	.05778	9.5917	279.18	43.766

#1	.00001	.08883	.00717	-.00044	.00039
#2	-.00001	.08890	.00822	.00134	.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143641-D-10-B Acquired: 10/27/2018 3:17:36 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00218**
 Stddev .00024
 %RSD 11.191

#1 **.00201**
 #2 **.00236**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.8	1456.4	45605.	3414.0
Stddev	5.8	2.7	72.	22.4
%RSD	.21761	.18519	.15885	.65739

#1	2641.8	1454.5	45656.	3429.9
#2	2649.9	1458.3	45554.	3398.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.599%	87.625%	95.516%	92.356%
Range				

Sample Name: 480-143506-C-3-A Acquired: 10/27/2018 3:21:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	.00577	.00909	.08055	.03612
Stddev	.00045	.00584	.00224	.00001	.00028
%RSD	61.888	101.26	24.617	.01330	.78115

#1	-.00106	.00164	.00751	.08055	.03592
#2	-.00041	.00990	.01067	.08054	.03632

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	131.04	.00022	-.0066	-.00000
Stddev	.00005	.18	.00022	.0086	.00005
%RSD	96.857	.13415	100.18	129.9	2280.0

#1	.00002	131.17	.00037	-.0128	.00003
#2	.00009	130.92	.00006	-.0005	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	-.00012	1.3373	2.5764	.03238
Stddev	.00019	.00040	.0026	.0070	.00077
%RSD	47.883	332.29	.19330	.27296	2.3834

#1	.00053	-.00040	1.3391	2.5814	.03292
#2	.00026	.00016	1.3354	2.5715	.03183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143506-C-3-A Acquired: 10/27/2018 3:21:24 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.991	.31512	.00250	34.214	.00094
Stddev	.146	.00065	.00030	.020	.00010
%RSD	.25091	.20721	11.867	.05877	10.572

#1	57.888	.31466	.00229	34.228	.00101
#2	58.094	.31558	.00271	34.200	.00087

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00147	50.45	-.00376	-.00551	7.9127
Stddev	.00097	.02	.00053	.00386	.0178
%RSD	65.863	.0406	14.022	70.057	.22447

#1	-.00079	50.47	-.00413	-.00824	7.9253
#2	-.00216	50.44	-.00338	-.00278	7.9002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.54442	-.00026	.00014	-.00020
Stddev	.00055	.00031	.00007	.00145	.00000
%RSD	2252.4	.05697	25.601	1012.2	1.0855

#1	-.00041	.54464	-.00022	.00117	-.00021
#2	.00037	.54420	-.00031	-.00088	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143506-C-3-A Acquired: 10/27/2018 3:21:24 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00279**
 Stddev .00061
 %RSD 21.756

#1 **.00236**
 #2 **.00321**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2478.4	1391.0	44321.	3351.3
Stddev	4.6	2.1	350.	.2
%RSD	.18432	.14969	.78942	.00657

#1	2481.7	1392.4	44569.	3351.1
#2	2475.2	1389.5	44074.	3351.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.741%	83.689%	92.828%	90.659%
Range				

Sample Name: blank Acquired: 10/27/2018 3:25:11 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00076	.00016	.00516	.00001
Stddev	.00007	.00554	.00153	.00013	.00000
%RSD	98.597	725.42	954.70	2.5607	8.4817

#1	-.00011	-.00315	-.00092	.00525	.00001
#2	-.00002	.00468	.00124	.00507	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.08212	-.00007	.0029	-.00007
Stddev	.00006	.01343	.00000	.0015	.00018
%RSD	355.44	16.348	4.7289	52.31	248.41

#1	.00006	.07263	-.00007	.0040	.00006
#2	-.00002	.09161	-.00007	.0018	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00019	-.00128	.28206	.00102
Stddev	.00001	.00027	.00112	.02118	.00008
%RSD	7.2505	144.62	87.054	7.5089	7.9828

#1	.00008	.00000	-.00049	.26709	.00108
#2	.00007	-.00038	-.00207	.29704	.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/27/2018 3:25:11 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.00017	.00015	.14302	.00022
Stddev	.00162	.00002	.00021	.00320	.00015
%RSD	985.84	13.419	142.76	2.2391	69.195

#1	.00098	-.00019	-.00000	.14528	.00032
#2	-.00131	-.00015	.00029	.14075	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	.0647	-.00097	-.00148	-.03396
Stddev	.00073	.0021	.00017	.00052	.00687
%RSD	109.17	3.201	17.748	35.336	20.238

#1	-.00015	.0661	-.00110	-.00111	-.03882
#2	-.00118	.0632	-.00085	-.00185	-.02910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00134	-.00005	-.00025	.00010
Stddev	.00035	.00027	.00007	.00092	.00001
%RSD	610.19	19.944	145.44	369.70	10.897

#1	.00030	.00115	.00000	.00040	.00009
#2	-.00019	.00152	-.00010	-.00090	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/27/2018 3:25:11 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00045**
 Stddev .00056
 %RSD 124.55

#1 **.00084**
 #2 **.00005**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2733.0	1496.7	46944.	3446.1
Stddev	5.0	7.0	78.	9.0
%RSD	.18338	.46641	.16680	.26120

#1	2729.5	1491.8	47000.	3439.7
#2	2736.6	1501.7	46889.	3452.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.651%	90.053%	98.321%	93.223%
Range				

Sample Name: CCV-4954075 Acquired: 10/27/2018 3:29:03 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50239	23.811	.50598	.51499	.50413	.46180	24.199
Stddev	.00063	.100	.00603	.00074	.00077	.00197	.081
%RSD	.12472	.42070	1.1909	.14334	.15233	.42613	.33592

#1	.50283	23.882	.51025	.51551	.50467	.46319	24.256
#2	.50195	23.740	.50172	.51447	.50358	.46041	24.141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53601	-.0054	.49490	.49003	.49746	F 22.494	24.663
Stddev	.00155	.0111	.00022	.00048	.00132	.138	.043
%RSD	.28904	203.2	.04439	.09716	.26461	.61535	.17328

#1	.53711	-.0133	.49506	.49036	.49839	22.591	24.693
#2	.53492	.0024	.49475	.48969	.49652	22.396	24.633

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						25.000	
Range						-10.000%	

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47876	24.088	.49272	.51146	24.014	.47223	.49865
Stddev	.00111	.066	.00167	.00178	.124	.00046	.00202
%RSD	.23177	.27467	.33971	.34831	.51570	.09640	.40503

#1	.47954	24.135	.49391	.51272	24.102	.47255	.49722
#2	.47797	24.042	.49154	.51020	23.927	.47190	.50008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/27/2018 3:29:03 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.62	.52492	.51149	24.063	.51077	.50173	.48791
Stddev	.16	.00219	.00144	.052	.00098	.00185	.00156
%RSD	.5671	.41796	.28184	.21815	.19168	.36830	.31974

#1	27.73	.52647	.51251	24.026	.51146	.50304	.48901
#2	27.51	.52336	.51047	24.100	.51007	.50042	.48681

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46639	.48490	.48362
Stddev	.00074	.00021	.00316
%RSD	.15840	.04329	.65424

#1	.46587	.48505	.48585
#2	.46692	.48475	.48138

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2594.1	1456.1	45589.	3381.1
Stddev	.8	2.5	132.	15.8
%RSD	.03272	.17341	.29062	.46755

#1	2594.7	1454.3	45495.	3370.0
#2	2593.5	1457.9	45682.	3392.3

Sample Name: CCB-4957862 Acquired: 10/27/2018 3:32:46 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	-.00761	.00012	.00355	.00001	.00009	.02412	.00012
Stddev	.00015	.00977	.00189	.00007	.00001	.00001	.00187	.00005
%RSD	96.614	128.46	1531.0	1.9012	174.72	9.0271	7.7695	39.840
#1	-.00005	-.00070	.00146	.00360	.00001	.00009	.02279	.00015
#2	-.00026	-.01452	-.00121	.00350	-.00000	.00008	.02544	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0061	-.00023	.00005	.00004	.00093	.20618	.00028	.00101
Stddev	.0102	.00008	.00036	.00014	.00037	.01521	.00030	.00123
%RSD	168.4	33.109	731.35	308.57	39.436	7.3778	108.52	122.24
#1	.0012	-.00028	.00030	-.00005	.00067	.19542	.00006	.00188
#2	-.0133	-.00018	-.00020	.00014	.00118	.21693	.00049	.00014

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00077	.10714	-.00019	-.00121	.0317	-.00089	-.00064
Stddev	.00006	.00002	.00544	.00012	.00037	.0004	.00059	.00265
%RSD	45.678	2.8921	5.0735	62.720	30.321	1.336	66.290	411.86
#1	.00009	.00076	.10329	-.00027	-.00147	.0314	-.00131	-.00252
#2	.00017	.00079	.11098	-.00010	-.00095	.0320	-.00047	.00123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 3:32:46 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00492	.00095	.00042	.00012	-.00087	-.00001	.00103
Stddev	.01433	.00016	.00003	.00003	.00057	.00001	.00006
%RSD	291.16	17.247	7.6355	27.055	65.183	121.71	5.9600

#1	-.01506	.00106	.00040	.00009	-.00047	-.00002	.00108
#2	.00521	.00083	.00044	.00014	-.00128	-.00000	.00099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2777.0	1498.0	47392.	3447.6
Stddev	.6	2.6	104.	4.3
%RSD	.02222	.17619	.21939	.12381

#1	2776.5	1496.1	47319.	3444.6
#2	2777.4	1499.9	47466.	3450.6

Sample Name: CCVL-4954076 Acquired: 10/27/2018 3:36:39 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00585	.18784	.01669	.02390	.00205	.00196	.52064
Stddev	.00046	.01596	.00260	.00002	.00000	.00004	.00780
%RSD	7.8041	8.4956	15.578	.09783	.22606	2.1251	1.4984
#1	.00618	.17655	.01485	.02388	.00204	.00193	.51513
#2	.00553	.19912	.01853	.02391	.00205	.00199	.52616

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00205	-.0087	.00373	.00399	.00967	.04459	W .65748
Stddev	.00007	.0233	.00016	.00018	.00005	.00003	.01677
%RSD	3.4948	268.8	4.4141	4.5226	.56507	.05916	2.5507
#1	.00211	.0078	.00384	.00386	.00963	.04457	.64563
#2	.00200	-.0251	.00361	.00412	.00970	.04461	.66934

Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn .50000 30.000%

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02771	.19818	.00268	.00983	1.0142	.00942	.00951
Stddev	.00014	.00315	.00001	.00006	.0001	.00001	.00014
%RSD	.49429	1.5918	.51246	.59582	.00852	.14188	1.4951
#1	.02780	.19595	.00269	.00979	1.0143	.00941	.00941
#2	.02761	.20041	.00267	.00987	1.0142	.00943	.00961

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4954076 Acquired: 10/27/2018 3:36:39 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2487	.01996	.02120	.42971	.00962	.00541	.00413
Stddev	.0032	.00010	.00064	.00288	.00012	.00008	.00015
%RSD	1.280	.48494	3.0202	.67005	1.2138	1.3889	3.5740

#1	.2465	.01990	.02075	.42768	.00971	.00536	.00423
#2	.2510	.02003	.02165	.43175	.00954	.00546	.00403

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.01799	.00487	.01211
Stddev	.00087	.00009	.00047
%RSD	4.8301	1.9296	3.9223

#1	.01737	.00493	.01244
#2	.01860	.00480	.01177

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2747.7	1489.0	46870.	3433.6
Stddev	3.0	1.0	235.	13.7
%RSD	.10963	.06710	.50225	.39849

#1	2745.5	1489.7	46704.	3443.2
#2	2749.8	1488.3	47037.	3423.9

Sample Name: MB 480-441514/1-A Acquired: 10/27/2018 3:40:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.05870	.00086	.00301	.00003
Stddev	.00047	.01173	.00279	.00001	.00000
%RSD	157.20	19.979	324.00	.24436	3.1717

#1	-.00063	.06700	.00284	.00302	.00003
#2	.00003	.05041	-.00111	.00301	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.02657	-.00004	-.0033	-.00007
Stddev	.00000	.00333	.00002	.0135	.00001
%RSD	29.515	12.543	47.940	409.3	9.7486

#1	-.00001	.02421	-.00005	-.0128	-.00007
#2	-.00002	.02892	-.00003	.0062	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00022	.00138	.15178	.00081
Stddev	.00009	.00015	.00005	.00359	.00002
%RSD	455.49	67.190	3.4045	2.3620	2.0576

#1	-.00005	.00032	.00134	.15431	.00080
#2	.00009	.00011	.00141	.14924	.00083

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441514/1-A Acquired: 10/27/2018 3:40:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.00052	.00015	.09918	-.00016
Stddev	.00068	.00000	.00001	.00302	.00015
%RSD	125.42	.06471	8.2450	3.0446	93.497

#1	.00006	.00052	.00016	.10131	-.00027
#2	.00102	.00052	.00014	.09704	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00090	.0327	-.00114	-.00281	-.02989
Stddev	.00005	.0015	.00076	.00136	.01429
%RSD	5.0449	4.610	66.788	48.483	47.815

#1	-.00094	.0338	-.00060	-.00185	-.03999
#2	-.00087	.0316	-.00168	-.00378	-.01978

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.00028	.00003	-.00153	-.00011
Stddev	.00011	.00004	.00033	.00031	.00009
%RSD	58.227	12.963	1072.9	20.458	80.948

#1	-.00012	.00030	-.00020	-.00175	-.00005
#2	-.00028	.00025	.00026	-.00131	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441514/1-A Acquired: 10/27/2018 3:40:29 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00195**
 Stddev .00038
 %RSD 19.328

#1 **.00222**
 #2 **.00169**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2729.4	1471.4	47025.	3457.9
Stddev	.4	1.4	183.	4.1
%RSD	.01576	.09709	.39000	.11888

#1	2729.1	1470.4	47155.	3460.8
#2	2729.7	1472.4	46896.	3455.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.524%	88.527%	98.491%	93.543%
Range				

Sample Name: LCS 480-441514/2-A Acquired: 10/27/2018 3:44:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04969	9.6715	.21165	.21942	.20557
Stddev	.00009	.0239	.00173	.00099	.00057
%RSD	.17174	.24767	.81839	.45000	.27523

#1	.04975	9.6545	.21287	.22012	.20597
#2	.04963	9.6884	.21042	.21872	.20517

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19455	9.7463	.22277	-.0066	.19752
Stddev	.00061	.0104	.00055	.0111	.00018
%RSD	.31383	.10615	.24787	169.5	.08897

#1	.19412	9.7390	.22316	-.0144	.19764
#2	.19498	9.7537	.22238	.0013	.19739

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19889	.19727	9.1259	9.7652	.19060
Stddev	.00028	.00001	.0027	.0248	.00006
%RSD	.14302	.00610	.02946	.25342	.02966

#1	.19869	.19728	9.1240	9.7477	.19056
#2	.19909	.19727	9.1278	9.7827	.19064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441514/2-A Acquired: 10/27/2018 3:44:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9589	.19518	.20391	9.4884	.19783
Stddev	.0052	.00008	.00017	.0120	.00007
%RSD	.05236	.04018	.08092	.12634	.03547

#1	9.9552	.19523	.20403	9.4968	.19778
#2	9.9626	.19512	.20379	9.4799	.19788

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20108	11.24	.21188	.20929	9.5241
Stddev	.00075	.04	.00064	.00022	.0611
%RSD	.37073	.3384	.30061	.10676	.64137

#1	.20161	11.26	.21143	.20945	9.4809
#2	.20055	11.21	.21233	.20914	9.5673

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20610	.19842	.19546	.19117	.19581
Stddev	.00035	.00021	.00034	.00060	.00000
%RSD	.16877	.10602	.17263	.31360	.00126

#1	.20585	.19827	.19522	.19075	.19581
#2	.20635	.19857	.19570	.19159	.19581

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441514/2-A Acquired: 10/27/2018 3:44:21 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20615**
 Stddev .00064
 %RSD .31013

#1 **.20660**
 #2 **.20569**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2656.3	1468.5	46097.	3440.3
Stddev	1.0	3.2	28.	2.2
%RSD	.03926	.21746	.06135	.06381

#1	2657.0	1466.2	46077.	3438.8
#2	2655.5	1470.7	46117.	3441.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.964%	88.353%	96.546%	93.067%
Range				

Sample Name: 480-143842-C-1-A Acquired: 10/27/2018 3:48:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.02077	.00219	.58660	.03895
Stddev	.00006	.01053	.00172	.00034	.00001
%RSD	21.910	50.665	78.693	.05820	.02987

#1	-.00024	.01333	.00097	.58635	.03894
#2	-.00033	.02822	.00341	.58684	.03896

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	115.33	.00011	.0120	.00023
Stddev	.00006	.21	.00014	.0020	.00008
%RSD	97.998	.18181	130.30	16.47	37.012

#1	.00011	115.19	.00020	.0134	.00017
#2	.00002	115.48	.00001	.0106	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00043	.73875	3.2761	.00248
Stddev	.00003	.00034	.00118	.0061	.00045
%RSD	14.532	78.623	.15998	.18721	18.282

#1	.00020	.00067	.73958	3.2718	.00280
#2	.00017	.00019	.73791	3.2804	.00216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-A Acquired: 10/27/2018 3:48:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.751	.09317	.00040	33.845	.00107
Stddev	.032	.00032	.00008	.095	.00003
%RSD	.12110	.34789	19.898	.27928	3.2270

#1	26.774	.09340	.00035	33.778	.00105
#2	26.728	.09294	.00046	33.911	.00110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	5.307	-.00361	-.00205	5.2274
Stddev	.00002	.006	.00143	.00320	.0183
%RSD	5806.5	.1112	39.633	156.07	.35046

#1	.00002	5.303	-.00463	-.00431	5.2404
#2	-.00001	5.311	-.00260	.00021	5.2145

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.36817	.00001	-.00049	.00013
Stddev	.00116	.00067	.00033	.00011	.00031
%RSD	207.72	.18174	2439.5	23.302	238.36

#1	-.00138	.36770	-.00022	-.00057	-.00009
#2	.00026	.36864	.00025	-.00041	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-A Acquired: 10/27/2018 3:48:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00630**
Stddev .00029
%RSD 4.6317

#1 **.00650**
#2 **.00609**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2512.6	1424.0	44609.	3368.4
Stddev	.7	2.5	100.	7.1
%RSD	.02968	.17637	.22409	.20996

#1	2513.2	1425.7	44538.	3373.4
#2	2512.1	1422.2	44679.	3363.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.937%	85.675%	93.429%	91.122%
Range				

Sample Name: 480-143842-C-1-Asd@5 Acquired: 10/27/2018 3:51:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.04590	-.00012	.11661	.00772
Stddev	.00042	.00015	.00012	.00051	.00004
%RSD	192.66	.32990	96.651	.43960	.45567

#1	.00008	.04579	-.00020	.11697	.00769
#2	-.00051	.04600	-.00004	.11624	.00774

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	23.157	.00015	-.0055	.00003
Stddev	.00000	.018	.00003	.0005	.00000
%RSD	4.9387	.07675	18.558	9.765	5.6754

#1	.00009	23.144	.00013	-.0059	.00003
#2	.00009	23.169	.00017	-.0051	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00033	.14870	.72245	.00037
Stddev	.00010	.00002	.00300	.00001	.00034
%RSD	37.213	6.1641	2.0197	.00159	92.738

#1	.00033	.00032	.14658	.72245	.00013
#2	.00019	.00035	.15083	.72246	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-Asd@5 Acquired: 10/27/2018 3:51:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.3207	.01877	.00004	6.5660	.00075
Stddev	.0077	.00009	.00014	.0007	.00012
%RSD	.14431	.48852	340.14	.01129	16.145

#1	5.3262	.01870	.00014	6.5654	.00084
#2	5.3153	.01883	-.00006	6.5665	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	1.037	-.00215	-.00140	.99835
Stddev	.00050	.004	.00067	.00084	.01391
%RSD	61.780	.4151	30.930	59.851	1.3930

#1	-.00117	1.034	-.00263	-.00081	.98851
#2	-.00046	1.040	-.00168	-.00199	1.0082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.07312	-.00006	-.00034	.00023
Stddev	.00062	.00009	.00005	.00069	.00001
%RSD	192.50	.12697	73.169	202.06	4.4292

#1	.00012	.07318	-.00003	.00015	.00023
#2	-.00076	.07305	-.00009	-.00083	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-Asd@5 Acquired: 10/27/2018 3:51:48 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00496**
Stddev .00057
%RSD 11.532

#1 **.00456**
#2 **.00536**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2685.5	1474.1	46422.	3410.0
Stddev	3.4	2.4	15.	4.5
%RSD	.12486	.16016	.03230	.13209

#1	2687.8	1475.7	46432.	3413.2
#2	2683.1	1472.4	46411.	3406.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.986%	88.689%	97.227%	92.248%
Range				

Sample Name: 480-143842-C-1-Apds Acquired: 10/27/2018 3:55:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08087	15.567	.34449	.92980	.36322
Stddev	.00020	.018	.00187	.00487	.00138
%RSD	.25122	.11504	.54272	.52428	.38053

#1	.08072	15.579	.34317	.92635	.36420
#2	.08101	15.554	.34581	.93324	.36225

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.31120	123.64	.35662	-.0086	.32154
Stddev	.00055	.39	.00105	.0056	.00014
%RSD	.17636	.31331	.29579	65.42	.04445

#1	.31082	123.37	.35588	-.0126	.32144
#2	.31159	123.92	.35737	-.0046	.32164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.31175	.32188	14.895	19.274	.32489
Stddev	.00004	.00090	.039	.033	.00062
%RSD	.01289	.27888	.26103	.17244	.18972

#1	.31172	.32252	14.867	19.297	.32532
#2	.31178	.32125	14.922	19.250	.32445

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-Apds Acquired: 10/27/2018 3:55:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Na8183
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	818.326 { 41}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	41.170	.38971	.32837	47.308	51.135
Stddev	.129	.00068	.00096	.070	.086
%RSD	.31349	.17467	.29123	.14771	.16864

#1	41.262	.39019	.32769	47.358	51.196
#2	41.079	.38923	.32904	47.259	51.074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.32444	.34880	23.69	.36056	.34551
Stddev	.00022	.00032	.08	.00124	.00078
%RSD	.06842	.09068	.3498	.34448	.22495

#1	.32460	.34858	23.63	.36144	.34496
#2	.32428	.34902	23.75	.35968	.34606

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.971	.33611	.66231	.31950	.31418
Stddev	.083	.00018	.00067	.00088	.00037
%RSD	.41397	.05423	.10180	.27651	.11706

#1	19.913	.33598	.66279	.32013	.31444
#2	20.030	.33624	.66184	.31888	.31392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-Apds Acquired: 10/27/2018 3:55:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	.31963	.31586
Stddev	.00036	.00009
%RSD	.11280	.02804

#1	.31988	.31579
#2	.31937	.31592

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2454.9	1398.9	44263.	3367.9
Stddev	1.0	4.6	2.	5.0
%RSD	.04018	.32705	.00451	.14986

#1	2455.6	1402.1	44264.	3371.4
#2	2454.2	1395.6	44262.	3364.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.918%	84.164%	92.705%	91.108%
Range				

Sample Name: 480-143842-C-1-B MS Acquired: 10/27/2018 3:59:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04976	9.5212	.21499	.83179	.23958
Stddev	.00021	.0333	.00099	.00206	.00036
%RSD	.41974	.34936	.46073	.24729	.15070

#1	.04961	9.4977	.21429	.83034	.23933
#2	.04991	9.5447	.21569	.83324	.23984

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19123	124.71	.22666	.0203	.19763
Stddev	.00114	.73	.00026	.0060	.00029
%RSD	.59749	.58934	.11461	29.77	.14563

#1	.19043	124.19	.22648	.0246	.19743
#2	.19204	125.22	.22685	.0160	.19784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19216	.19607	9.4670	13.141	.19839
Stddev	.00106	.00089	.0435	.043	.00098
%RSD	.55107	.45359	.45988	.32919	.49318

#1	.19141	.19670	9.4362	13.110	.19770
#2	.19291	.19544	9.4978	13.171	.19908

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-B MS Acquired: 10/27/2018 3:59:21 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	36.816	.28077	.20365	42.784	.19572
Stddev	.135	.00123	.00035	.036	.00000
%RSD	.36607	.43813	.17381	.08306	.00168

#1	36.721	.27990	.20340	42.759	.19572
#2	36.912	.28164	.20390	42.809	.19572

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20377	17.18	.21470	.21247	14.657
Stddev	.00118	.05	.00162	.00303	.097
%RSD	.57898	.2783	.75373	1.4261	.66268

#1	.20294	17.15	.21355	.21033	14.589
#2	.20461	17.21	.21584	.21461	14.726

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20856	.55644	.19372	.19258	.19114
Stddev	.00153	.00060	.00019	.00176	.00023
%RSD	.73247	.10812	.09922	.91367	.12051

#1	.20964	.55601	.19358	.19134	.19131
#2	.20748	.55686	.19385	.19383	.19098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-B MS Acquired: 10/27/2018 3:59:21 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20089**
 Stddev .00073
 %RSD .36516

#1 **.20037**
 #2 **.20141**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2458.5	1393.6	44368.	3373.6
Stddev	1.9	1.4	86.	6.9
%RSD	.07562	.10258	.19350	.20309

#1	2457.2	1394.7	44429.	3378.5
#2	2459.8	1392.6	44308.	3368.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.043%	83.851%	92.926%	91.263%
Range				

Sample Name: 480-143842-C-1-C MSD Acquired: 10/27/2018 4:03:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04938	9.5427	.21207	.83514	.24098
Stddev	.00040	.0471	.00137	.00006	.00002
%RSD	.81600	.49330	.64820	.00715	.00845

#1	.04967	9.5094	.21110	.83518	.24100
#2	.04910	9.5760	.21304	.83509	.24097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19155	128.56	.22144	.0062	.19568
Stddev	.00075	.57	.00018	.0006	.00054
%RSD	.39369	.44699	.08065	9.791	.27728

#1	.19209	128.97	.22156	.0066	.19529
#2	.19102	128.16	.22131	.0058	.19606

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19166	.19513	9.5042	13.328	.19763
Stddev	.00061	.00055	.0154	.030	.00054
%RSD	.31880	.28312	.16212	.22874	.27132

#1	.19123	.19552	9.4933	13.350	.19800
#2	.19209	.19474	9.5151	13.306	.19725

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-C MSD Acquired: 10/27/2018 4:03:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	37.600	.28383	.20054	44.383	.19555
Stddev	.074	.00023	.00005	.188	.00056
%RSD	.19667	.08083	.02593	.42298	.28495

#1	37.548	.28367	.20050	44.251	.19594
#2	37.652	.28399	.20057	44.516	.19516

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20361	16.84	.21075	.21031	14.764
Stddev	.00081	.04	.00062	.00019	.007
%RSD	.39642	.2366	.29611	.09058	.04591

#1	.20418	16.87	.21031	.21017	14.769
#2	.20304	16.81	.21119	.21044	14.759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20622	.57069	.19261	.19011	.19128
Stddev	.00216	.00287	.00070	.00087	.00026
%RSD	1.0490	.50323	.36510	.45860	.13745

#1	.20775	.56866	.19211	.19072	.19146
#2	.20469	.57272	.19310	.18949	.19109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-1-C MSD Acquired: 10/27/2018 4:03:01 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20582**
 Stddev .00017
 %RSD .08081

#1 **.20570**
 #2 **.20593**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2460.6	1413.4	44256.	3392.3
Stddev	.4	1.5	33.	3.4
%RSD	.01624	.10343	.07486	.09924

#1	2460.3	1412.3	44279.	3394.7
#2	2460.9	1414.4	44233.	3389.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.116%	85.037%	92.690%	91.768%
Range				

Sample Name: 480-143842-D-2-A Acquired: 10/27/2018 4:06:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.01480	-.00149	.15125	.08038
Stddev	.00004	.01583	.00105	.00033	.00000
%RSD	88.972	106.92	70.729	.22080	.00067

#1	.00007	.02600	-.00224	.15149	.08038
#2	.00002	.00361	-.00075	.15102	.08038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	110.02	.00008	.0040	-.00010
Stddev	.00000	.21	.00005	.0249	.00004
%RSD	.61618	.19265	67.399	616.5	33.930

#1	.00005	110.17	.00004	-.0136	-.00013
#2	.00004	109.87	.00012	.0216	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00063	.02382	5.2408	.02257
Stddev	.00023	.00008	.00243	.0022	.00104
%RSD	38.131	13.010	10.195	.04302	4.6087

#1	.00076	.00069	.02210	5.2392	.02331
#2	.00044	.00057	.02554	5.2424	.02184

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-D-2-A Acquired: 10/27/2018 4:06:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	42.044	.07422	.00588	24.208	.00072
Stddev	.128	.00008	.00044	.100	.00043
%RSD	.30331	.10261	7.4716	.41107	60.102

#1	42.134	.07427	.00557	24.278	.00041
#2	41.954	.07416	.00619	24.138	.00103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	20.30	-.00053	-.00472	6.4813
Stddev	.00164	.02	.00115	.00651	.0074
%RSD	154.44	.0933	216.66	138.05	.11390

#1	.00010	20.32	.00028	-.00011	6.4866
#2	-.00222	20.29	-.00135	-.00932	6.4761

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.49840	-.00003	-.00074	.00023
Stddev	.00084	.00207	.00009	.00032	.00029
%RSD	177.79	.41570	298.28	44.134	124.47

#1	.00107	.49986	-.00010	-.00097	.00003
#2	-.00012	.49693	.00003	-.00051	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-D-2-A Acquired: 10/27/2018 4:06:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00528**
 Stddev .00000
 %RSD .09200

#1 **.00527**
 #2 **.00528**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2512.3	1422.8	44683.	3371.8
Stddev	3.3	2.2	47.	7.9
%RSD	.13109	.15196	.10463	.23398

#1	2510.0	1421.2	44650.	3366.2
#2	2514.7	1424.3	44716.	3377.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.927%	85.603%	93.585%	91.213%
Range				

Sample Name: 480-143842-C-3-A Acquired: 10/27/2018 4:10:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.50640	.00943	.16297	.07600
Stddev	.00013	.00659	.00260	.00079	.00014
%RSD	31.407	1.3022	27.520	.48516	.18135

#1	-.00050	.51106	.00760	.16241	.07590
#2	-.00032	.50174	.01127	.16353	.07609

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	101.82	.00007	.0042	-.00007
Stddev	.00001	.43	.00004	.0119	.00005
%RSD	55.417	.42479	50.553	282.0	74.996

#1	.00001	102.13	.00009	-.0042	-.00011
#2	.00002	101.52	.00004	.0127	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00123	.00021	6.7883	4.2338	.00371
Stddev	.00018	.00023	.0186	.0162	.00060
%RSD	14.839	108.85	.27385	.38318	16.131

#1	.00135	.00038	6.8014	4.2223	.00413
#2	.00110	.00005	6.7751	4.2453	.00329

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-3-A Acquired: 10/27/2018 4:10:29 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.312	.11676	.00077	122.04	.00036
Stddev	.008	.00029	.00027	.63	.00006
%RSD	.03315	.24729	34.718	.51314	16.903

#1	25.318	.11656	.00058	122.48	.00032
#2	25.307	.11697	.00096	121.59	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	1.705	-.00430	-.00560	7.4773
Stddev	.00013	.009	.00041	.00091	.0337
%RSD	20.305	.5481	9.4591	16.203	.45111

#1	-.00053	1.698	-.00459	-.00624	7.5012
#2	-.00071	1.711	-.00402	-.00496	7.4535

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00109	.31689	.01299	-.00001	.00081
Stddev	.00010	.00102	.00041	.00008	.00022
%RSD	9.5209	.32300	3.1310	1544.4	26.906

#1	.00102	.31761	.01270	-.00006	.00097
#2	.00117	.31616	.01328	.00005	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-3-A Acquired: 10/27/2018 4:10:29 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00341**
 Stddev .00034
 %RSD 9.8704

#1 **.00317**
 #2 **.00365**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2461.7	1406.4	44073.	3328.7
Stddev	3.1	3.4	49.	16.8
%RSD	.12565	.24139	.11187	.50363

#1	2463.9	1408.8	44038.	3316.9
#2	2459.5	1404.0	44108.	3340.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.155%	84.618%	92.308%	90.048%
Range				

Sample Name: CCV-4954075 Acquired: 10/27/2018 4:14:18 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49950	23.335	.50235	.51885	.50134	.45688	24.073
Stddev	.00043	.036	.00250	.00056	.00219	.00077	.061
%RSD	.08602	.15504	.49771	.10699	.43759	.16766	.25311

#1	.49920	23.360	.50412	.51846	.50289	.45742	24.116
#2	.49981	23.309	.50058	.51924	.49979	.45634	24.030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54401	-.0085	.49426	.48253	.49558	F 21.926	24.408
Stddev	.00031	.0060	.00020	.00007	.00015	.031	.126
%RSD	.05662	70.65	.03958	.01382	.02949	.14101	.51764

#1	.54379	-.0127	.49440	.48249	.49547	21.948	24.497
#2	.54422	-.0042	.49412	.48258	.49568	21.905	24.319

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						25.000	
Range						-10.000%	

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47824	23.992	.48823	.51105	23.454	.46682	.49973
Stddev	.00233	.028	.00038	.00054	.085	.00100	.00017
%RSD	.48754	.11769	.07815	.10481	.36226	.21513	.03319

#1	.47989	23.972	.48796	.51142	23.514	.46753	.49985
#2	.47659	24.012	.48850	.51067	23.394	.46611	.49961

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/27/2018 4:14:18 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.88	.52937	.51725	23.773	.51023	.48771	.48566
Stddev	.09	.00307	.00330	.045	.00013	.00146	.00069
%RSD	.3338	.57930	.63719	.18935	.02599	.29965	.14224

#1	27.95	.52720	.51958	23.741	.51032	.48875	.48517
#2	27.81	.53154	.51492	23.805	.51013	.48668	.48614

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46150	.47751	.47936
Stddev	.00113	.00049	.00253
%RSD	.24529	.10205	.52701

#1	.46230	.47786	.48115
#2	.46070	.47717	.47758

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2595.6	1438.5	45846.	3411.2
Stddev	1.3	.0	94.	2.1
%RSD	.04954	.00050	.20442	.06031

#1	2594.7	1438.5	45779.	3412.7
#2	2596.5	1438.5	45912.	3409.8

Sample Name: CCB-4957862 Acquired: 10/27/2018 4:18:02 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.01055	-.00002	.00141	.00002	.00007	.00315	-.00004
Stddev	.00053	.01315	.00035	.00005	.00000	.00001	.00055	.00003
%RSD	950.44	124.58	1551.5	3.4216	20.822	17.259	17.416	84.144
#1	-.00032	-.01985	.00022	.00145	.00002	.00008	.00354	-.00002
#2	.00043	-.00126	-.00027	.00138	.00002	.00006	.00277	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030	-.00013	.00012	-.00006	-.00036	.09656	.00036	.00015
Stddev	.0081	.00007	.00016	.00010	.00077	.02488	.00042	.00056
%RSD	267.5	54.550	130.60	167.54	214.30	25.762	117.45	385.59
#1	.0087	-.00008	.00023	-.00013	-.00091	.11415	.00065	-.00025
#2	-.0027	-.00019	.00001	.00001	.00019	.07897	.00006	.00054

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00097	.07165	-.00015	-.00100	.0142	-.00149	-.00193
Stddev	.00003	.00001	.00132	.00015	.00056	.0039	.00055	.00194
%RSD	21.370	.92144	1.8394	100.19	56.150	27.60	37.112	100.70
#1	.00012	.00096	.07071	-.00004	-.00140	.0114	-.00110	-.00056
#2	.00017	.00097	.07258	-.00025	-.00060	.0169	-.00188	-.00330

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 4:18:02 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00895	.00054	.00008	.00022	-.00100	.00011	.00057
Stddev	.00442	.00012	.00003	.00004	.00078	.00025	.00004
%RSD	49.427	21.232	40.817	17.731	77.609	234.97	7.5604

#1	-.00582	.00046	.00011	.00019	-.00156	.00029	.00060
#2	-.01207	.00063	.00006	.00024	-.00045	-.00007	.00054

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2772.9	1490.7	47463.	3452.5
Stddev	2.0	4.5	62.	9.0
%RSD	.07033	.30001	.13139	.26062

#1	2774.2	1487.5	47507.	3446.2
#2	2771.5	1493.9	47418.	3458.9

Sample Name: CCVL-4954076 Acquired: 10/27/2018 4:21:55 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00596	.19913	.01502	.02203	.00207	.00190	.50002	.00219
Stddev	.00041	.02145	.00186	.00026	.00000	.00000	.00046	.00001
%RSD	6.8392	10.771	12.370	1.1599	.06009	.16764	.09269	.47266

#1	.00625	.21430	.01633	.02221	.00207	.00189	.50035	.00220
#2	.00567	.18396	.01370	.02185	.00208	.00190	.49969	.00218

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0030	.00380	.00381	.00954	.04260	.52019	.02872	.19866
Stddev	.0084	.00015	.00007	.00015	.00019	.00019	.00065	.00026
%RSD	281.7	4.0035	1.9294	1.5499	.44276	.03739	2.2477	.12846

#1	.0030	.00369	.00386	.00965	.04247	.52005	.02918	.19884
#2	-.0090	.00391	.00376	.00944	.04273	.52033	.02827	.19848

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00273	.00999	.99853	.00931	.01003	.2278	.01909	.02472
Stddev	.00010	.00034	.00008	.00002	.00047	.0002	.00045	.00015
%RSD	3.6951	3.4051	.00848	.21855	4.6538	.0724	2.3641	.62030

#1	.00280	.00975	.99859	.00932	.01036	.2277	.01941	.02461
#2	.00266	.01023	.99847	.00929	.00970	.2279	.01877	.02483

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/27/2018 4:21:55 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43412	.00917	.00498	.00429	.01752	.00487	.01071
Stddev	.00575	.00030	.00002	.00020	.00028	.00005	.00013
%RSD	1.3251	3.2284	.38919	4.6853	1.6218	.98775	1.2525
#1	.43819	.00938	.00499	.00414	.01732	.00490	.01061
#2	.43005	.00896	.00497	.00443	.01772	.00483	.01080

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2747.0	1497.5	46763.	3424.9
Stddev	2.9	1.7	75.	16.8
%RSD	.10633	.11234	.16039	.48960
#1	2745.0	1496.3	46710.	3413.0
#2	2749.1	1498.7	46816.	3436.7

Sample Name: 480-143842-C-4-A Acquired: 10/27/2018 4:25:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.02496	.00165	.08966	.04553
Stddev	.00014	.02545	.00085	.00036	.00005
%RSD	36.635	101.98	51.149	.40231	.10437

#1	-.00028	.04296	.00106	.08940	.04550
#2	-.00047	.00696	.00225	.08991	.04557

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	91.982	.00007	-.0077	.00484
Stddev	.00004	.177	.00007	.0087	.00014
%RSD	60.006	.19287	98.879	112.7	2.9454

#1	.00003	91.857	.00002	-.0139	.00494
#2	.00008	92.108	.00012	-.0016	.00474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51508	.00396	5.0463	5.8711	.00272
Stddev	.00130	.00020	.0063	.0366	.00042
%RSD	.25294	5.1303	.12385	.62263	15.515

#1	.51416	.00411	5.0419	5.8452	.00243
#2	.51601	.00382	5.0507	5.8969	.00302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-4-A Acquired: 10/27/2018 4:25:46 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.412	.33839	.00165	188.64	.23915
Stddev	.062	.00078	.00015	.69	.00014
%RSD	.25360	.22986	9.3375	.36782	.05837

#1	24.368	.33784	.00176	189.13	.23925
#2	24.456	.33894	.00154	188.15	.23906

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00088	13.40	-.00456	-.00625	5.1178
Stddev	.00039	.03	.00109	.00617	.0466
%RSD	44.320	.2565	23.871	98.749	.91160

#1	-.00116	13.38	-.00532	-.01061	5.0848
#2	-.00060	13.43	-.00379	-.00189	5.1508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.17312	.00020	.00145	.00142
Stddev	.00049	.00073	.00002	.00012	.00003
%RSD	77.215	.42276	11.076	8.3656	1.9249

#1	.00029	.17364	.00022	.00153	.00140
#2	.00099	.17260	.00018	.00136	.00144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-4-A Acquired: 10/27/2018 4:25:46 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00346**
 Stddev .00008
 %RSD 2.3702

#1 **.00352**
 #2 **.00341**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2426.7	1391.0	43707.	3336.2
Stddev	.6	2.5	140.	5.5
%RSD	.02540	.18321	.31978	.16484

#1	2426.3	1392.8	43806.	3340.1
#2	2427.1	1389.2	43608.	3332.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.929%	83.691%	91.540%	90.252%
Range				

Sample Name: 480-143842-C-5-B Acquired: 10/27/2018 4:29:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.11689	-.00157	.07587	.03434
Stddev	.00048	.00041	.00015	.00072	.00007
%RSD	7756.4	.35249	9.7099	.95430	.20497

#1	-.00033	.11718	-.00146	.07638	.03429
#2	.00034	.11660	-.00167	.07536	.03439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	86.618	.00017	-.0157	-.00033
Stddev	.00001	.124	.00004	.0071	.00004
%RSD	60.512	.14328	26.266	45.50	10.825

#1	.00003	86.530	.00020	-.0107	-.00031
#2	.00001	86.706	.00014	-.0208	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00020	.45315	3.5133	.00380
Stddev	.00041	.00005	.00221	.0128	.00020
%RSD	96.696	23.763	.48661	.36542	5.3600

#1	.00013	.00023	.45159	3.5043	.00366
#2	.00071	.00016	.45471	3.5224	.00395

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-5-B Acquired: 10/27/2018 4:29:38 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.336	.03640	.00045	131.93	-.00002
Stddev	.024	.00007	.00005	.25	.00001
%RSD	.09813	.19929	12.102	.18915	51.212

#1	24.320	.03635	.00041	131.75	-.00001
#2	24.353	.03645	.00049	132.11	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00089	11.23	-.00262	-.00674	4.9996
Stddev	.00000	.04	.00062	.00250	.0200
%RSD	.30848	.3967	23.755	37.150	.39987

#1	-.00089	11.26	-.00306	-.00851	4.9855
#2	-.00089	11.19	-.00218	-.00497	5.0138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.14457	-.00015	-.00034	.00000
Stddev	.00056	.00049	.00014	.00001	.00011
%RSD	310.88	.33885	93.371	1.7968	5929.6

#1	.00058	.14422	-.00024	-.00035	.00008
#2	-.00022	.14492	-.00005	-.00034	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-5-B Acquired: 10/27/2018 4:29:38 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00386**
 Stddev .00041
 %RSD 10.724

#1 **.00357**
 #2 **.00415**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2468.2	1393.2	44288.	3367.0
Stddev	3.6	4.7	28.	10.8
%RSD	.14406	.33867	.06310	.31980

#1	2465.7	1389.9	44308.	3374.6
#2	2470.8	1396.6	44268.	3359.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.384%	83.825%	92.757%	91.083%
Range				

Sample Name: 480-143842-C-6-A Acquired: 10/27/2018 4:33:27 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.02203	.00111	.22732	.11280
Stddev	.00021	.02579	.00266	.00097	.00030
%RSD	105.97	117.08	239.09	.42878	.26924

#1	-.00034	.00379	.00299	.22663	.11302
#2	-.00005	.04027	-.00077	.22801	.11259

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	126.80	.00025	-.0057	.00098
Stddev	.00001	.04	.00001	.0072	.00001
%RSD	32.509	.03486	4.7198	126.1	.57097

#1	-.00003	126.77	.00024	-.0006	.00099
#2	-.00002	126.83	.00026	-.0108	.00098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20314	.00436	1.0274	6.4999	.00537
Stddev	.00072	.00019	.0015	.0054	.00054
%RSD	.35550	4.4702	.14181	.08255	9.9842

#1	.20263	.00422	1.0285	6.4961	.00499
#2	.20365	.00450	1.0264	6.5037	.00575

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-6-A Acquired: 10/27/2018 4:33:27 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	31.014	.73376	.00289	141.35	.04578
Stddev	.012	.00012	.00020	.35	.00012
%RSD	.03912	.01572	7.0567	.25037	.26392

#1	31.022	.73384	.00304	141.60	.04587
#2	31.005	.73368	.00275	141.10	.04570

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00049	16.28	-.00275	-.00239	6.5168
Stddev	.00194	.00	.00065	.00040	.0397
%RSD	397.63	.0289	23.717	16.715	.60851

#1	-.00186	16.28	-.00321	-.00267	6.4888
#2	.00088	16.28	-.00229	-.00211	6.5448

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.27680	-.00007	.00025	.00113
Stddev	.00066	.00039	.00017	.00006	.00010
%RSD	650.88	.13950	245.21	22.814	8.9725

#1	.00037	.27707	.00005	.00021	.00106
#2	-.00057	.27653	-.00019	.00029	.00121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-6-A Acquired: 10/27/2018 4:33:27 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00305**
 Stddev .00018
 %RSD 5.8354

#1 **.00293**
 #2 **.00318**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2425.2	1375.0	43883.	3344.3
Stddev	3.5	3.3	129.	7.4
%RSD	.14415	.24101	.29487	.22059

#1	2422.8	1372.7	43791.	3339.1
#2	2427.7	1377.4	43974.	3349.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.878%	82.732%	91.909%	90.471%
Range				

Sample Name: 480-143842-C-7-A Acquired: 10/27/2018 4:37:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.02921	-.00177	.22263	.11290
Stddev	.00040	.01296	.00013	.00112	.00005
%RSD	479.45	44.373	7.0723	.50510	.04790

#1	-.00037	.03837	-.00168	.22343	.11294
#2	.00020	.02004	-.00186	.22184	.11287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	126.91	.00029	-.0106	.00098
Stddev	.00006	.53	.00004	.0066	.00024
%RSD	209.24	.41827	12.709	62.29	24.040

#1	-.00001	126.54	.00032	-.0152	.00115
#2	.00008	127.29	.00026	-.0059	.00081

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.23341	.00427	1.0874	6.5069	.00606
Stddev	.00071	.00041	.0025	.0021	.00039
%RSD	.30357	9.6676	.23219	.03276	6.3857

#1	.23291	.00456	1.0892	6.5084	.00633
#2	.23391	.00398	1.0856	6.5053	.00579

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-7-A Acquired: 10/27/2018 4:37:13 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.961	.73539	.00347	143.27	.04698
Stddev	.019	.00020	.00015	.29	.00002
%RSD	.05998	.02745	4.2823	.20496	.05268

#1	30.948	.73554	.00337	143.47	.04697
#2	30.974	.73525	.00358	143.06	.04700

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	15.77	-.00325	-.00287	6.5417
Stddev	.00147	.00	.00145	.00135	.0191
%RSD	1097.9	.0041	44.713	46.915	.29119

#1	.00090	15.77	-.00428	-.00382	6.5282
#2	-.00117	15.77	-.00222	-.00192	6.5551

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.27856	-.00001	.00011	.00113
Stddev	.00012	.00012	.00013	.00124	.00028
%RSD	54.724	.04448	920.46	1084.9	24.604

#1	.00014	.27848	.00008	.00099	.00133
#2	.00031	.27865	-.00011	-.00076	.00093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-7-A Acquired: 10/27/2018 4:37:13 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00311**
 Stddev .00029
 %RSD 9.1783

#1 **.00291**
 #2 **.00331**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2428.7	1393.1	43796.	3346.1
Stddev	.7	.7	101.	11.9
%RSD	.02750	.04790	.23009	.35567

#1	2429.2	1393.5	43868.	3354.5
#2	2428.2	1392.6	43725.	3337.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.000%	83.816%	91.728%	90.518%
Range				

Sample Name: 480-143842-C-8-A Acquired: 10/27/2018 4:41:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.17444	-.00125	.05039	.04041
Stddev	.00002	.00534	.00045	.00006	.00024
%RSD	3.8990	3.0639	35.687	.11145	.58724

#1	-.00049	.17066	-.00156	.05043	.04024
#2	-.00047	.17822	-.00093	.05035	.04058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	85.343	.00026	.0242	.00001
Stddev	.00004	.038	.00013	.0013	.00003
%RSD	114.76	.04500	47.895	5.459	186.13

#1	.00001	85.316	.00017	.0251	.00003
#2	.00007	85.370	.00035	.0232	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00162	.00046	.25228	3.0955	.00427
Stddev	.00003	.00007	.00096	.0040	.00060
%RSD	2.0267	15.283	.38209	.12760	14.132

#1	.00159	.00041	.25160	3.0927	.00384
#2	.00164	.00051	.25296	3.0983	.00470

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-8-A Acquired: 10/27/2018 4:41:01 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.421	.01101	.00053	73.951	.00123
Stddev	.068	.00004	.00000	.420	.00008
%RSD	.26606	.36333	.07344	.56741	6.7195
#1	25.374	.01098	.00053	74.248	.00128
#2	25.469	.01104	.00053	73.654	.00117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	11.43	-.00346	-.00446	5.4726
Stddev	.00059	.02	.00084	.00144	.0015
%RSD	228.19	.1574	24.375	32.284	.02819
#1	.00016	11.42	-.00287	-.00344	5.4715
#2	-.00067	11.45	-.00406	-.00548	5.4737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.12225	.00515	.00059	.00038
Stddev	.00105	.00011	.00026	.00019	.00011
%RSD	559.69	.08634	5.1221	32.430	28.134
#1	-.00093	.12233	.00534	.00072	.00046
#2	.00056	.12218	.00496	.00045	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-8-A Acquired: 10/27/2018 4:41:01 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00428**
 Stddev .00029
 %RSD 6.7593

#1 **.00449**
 #2 **.00408**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2507.9	1422.6	44561.	3363.7
Stddev	2.9	.6	308.	5.6
%RSD	.11442	.03912	.69114	.16604

#1	2505.9	1422.2	44779.	3359.8
#2	2510.0	1423.0	44343.	3367.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.773%	85.592%	93.329%	90.995%
Range				

Sample Name: 480-143842-C-9-A Acquired: 10/27/2018 4:44:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.21682	-.00016	.17097	.04529
Stddev	.00020	.02808	.00204	.00004	.00003
%RSD	40.995	12.953	1265.3	.02524	.07659

#1	-.00034	.19696	.00128	.17094	.04532
#2	-.00062	.23668	-.00160	.17100	.04527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	111.88	.00009	.0030	.00126
Stddev	.00001	.04	.00013	.0229	.00019
%RSD	31.278	.04003	146.11	763.9	14.929

#1	.00006	111.91	-.00000	.0192	.00140
#2	.00004	111.85	.00019	-.0132	.00113

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00415	.00242	.79083	3.4000	.00444
Stddev	.00011	.00033	.00248	.0115	.00103
%RSD	2.6145	13.602	.31420	.33888	23.110

#1	.00407	.00265	.79259	3.3919	.00371
#2	.00422	.00218	.78907	3.4082	.00516

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-9-A Acquired: 10/27/2018 4:44:49 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	29.976	.12376	.00057	148.64	.00425
Stddev	.016	.00021	.00005	.18	.00031
%RSD	.05378	.16866	9.4377	.12283	7.1909

#1	29.987	.12391	.00060	148.51	.00404
#2	29.964	.12361	.00053	148.77	.00447

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00143	6.156	-.00388	-.00436	6.1862
Stddev	.00152	.008	.00040	.00132	.0098
%RSD	106.13	.1368	10.392	30.303	.15808

#1	.00251	6.162	-.00417	-.00529	6.1792
#2	.00036	6.150	-.00360	-.00343	6.1931

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.19942	.00606	.00025	.00084
Stddev	.00031	.00001	.00000	.00098	.00024
%RSD	268.54	.00409	.03314	386.06	29.001

#1	-.00010	.19942	.00606	-.00044	.00101
#2	.00034	.19941	.00606	.00095	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-9-A Acquired: 10/27/2018 4:44:49 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01055**
 Stddev .00034
 %RSD 3.2171

#1 **.01079**
 #2 **.01031**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2427.5	1385.6	43995.	3349.4
Stddev	3.7	1.1	47.	2.9
%RSD	.15040	.07983	.10708	.08671

#1	2424.9	1384.8	44028.	3347.3
#2	2430.1	1386.4	43962.	3351.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	84.957%	83.366%	92.144%	90.607%
Range				

Sample Name: 480-143842-C-10-A Acquired: 10/27/2018 4:48:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	.15750	.00349	.21145	.23687
Stddev	.00039	.00611	.00193	.00028	.00024
%RSD	61.100	3.8798	55.439	.13057	.10252

#1	-.00092	.15318	.00486	.21125	.23670
#2	-.00037	.16183	.00212	.21164	.23704

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	169.95	.00015	.0045	.00329
Stddev	.00002	.24	.00014	.0110	.00010
%RSD	30.360	.14403	93.757	244.4	2.9809

#1	.00005	170.12	.00025	-.0033	.00322
#2	.00008	169.78	.00005	.0122	.00336

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06811	.00397	10.185	16.368	.00546
Stddev	.00029	.00027	.007	.051	.00106
%RSD	.42430	6.9286	.06700	.31286	19.308

#1	.06791	.00416	10.190	16.404	.00472
#2	.06832	.00377	10.180	16.332	.00621

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-10-A Acquired: 10/27/2018 4:48:41 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	31.630	.75996	.00357	191.45	.17934
Stddev	.002	.00017	.00045	.02	.00004
%RSD	.00729	.02257	12.571	.01164	.02143

#1	31.628	.76008	.00325	191.46	.17937
#2	31.631	.75984	.00388	191.43	.17931

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	10.51	-.00501	-.00535	10.483
Stddev	.00088	.01	.00046	.00431	.041
%RSD	246.19	.1176	9.0875	80.506	.39078

#1	.00098	10.52	-.00533	-.00839	10.455
#2	-.00027	10.50	-.00469	-.00230	10.512

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00113	.46740	.00195	-.00054	.00077
Stddev	.00009	.00174	.00014	.00084	.00014
%RSD	8.3021	.37317	6.9653	155.08	17.596

#1	.00119	.46863	.00204	-.00113	.00086
#2	.00106	.46616	.00185	.00005	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-10-A Acquired: 10/27/2018 4:48:41 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00964**
 Stddev .00039
 %RSD 4.0486

#1 **.00936**
 #2 **.00991**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2379.0	1368.5	43426.	3309.4
Stddev	4.1	1.1	147.	5.5
%RSD	.17064	.07682	.33861	.16641

#1	2376.1	1367.8	43322.	3313.3
#2	2381.9	1369.3	43530.	3305.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.260%	82.339%	90.952%	89.526%
Range				

Sample Name: 480-143842-C-11-A Acquired: 10/27/2018 4:52:32 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.49369	.00142	.04949	.04662
Stddev	.00050	.00436	.00042	.00036	.00025
%RSD	92.124	.88228	29.271	.73073	.54359

#1	-.00090	.49061	.00112	.04974	.04680
#2	-.00019	.49677	.00171	.04923	.04644

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	96.718	.00038	.0057	.00360
Stddev	.00001	.094	.00014	.0095	.00004
%RSD	24.475	.09734	37.577	166.9	.99400

#1	.00003	96.785	.00048	.0124	.00363
#2	.00005	96.652	.00028	-.0010	.00358

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.1172	.02161	11.965	2.5698	.00389
Stddev	.0146	.00023	.059	.0205	.00020
%RSD	.68888	1.0746	.49502	.79714	5.2525

#1	2.1275	.02177	11.924	2.5843	.00374
#2	2.1069	.02144	12.007	2.5553	.00403

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-11-A Acquired: 10/27/2018 4:52:32 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.540	.09934	.00369	55.110	.26035
Stddev	.097	.00033	.00018	.156	.00045
%RSD	.31730	.32751	4.9973	.28335	.17095

#1	30.608	.09957	.00356	54.999	.26067
#2	30.471	.09911	.00382	55.220	.26004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	10.93	-.00659	-.00491	6.7434
Stddev	.00001	.05	.00141	.00275	.0117
%RSD	1.6163	.4927	21.434	55.969	.17374

#1	.00045	10.97	-.00759	-.00685	6.7517
#2	.00044	10.90	-.00559	-.00297	6.7351

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00075	.12386	.01228	.00086	.00615
Stddev	.00059	.00095	.00085	.00007	.00012
%RSD	78.474	.76992	6.9370	8.6132	1.8774

#1	.00033	.12319	.01168	.00091	.00607
#2	.00116	.12453	.01288	.00081	.00623

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-11-A Acquired: 10/27/2018 4:52:32 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00734**
 Stddev .00011
 %RSD 1.5312

#1 **.00742**
 #2 **.00726**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2490.6	1400.4	44511.	3373.4
Stddev	.7	5.2	240.	2.1
%RSD	.02879	.37391	.53987	.06284

#1	2490.1	1396.7	44341.	3371.9
#2	2491.1	1404.1	44681.	3374.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.165%	84.255%	93.224%	91.258%
Range				

Sample Name: 480-143842-C-13-A Acquired: 10/27/2018 4:56:19 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00235	.00077	.00196	.00001
Stddev	.00014	.01987	.00076	.00029	.00001
%RSD	105.47	844.24	99.047	14.861	103.68

#1	-.00023	.01640	.00023	.00175	.00002
#2	-.00003	-.01170	.00131	.00216	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.01579	-.00002	.0077	.00000
Stddev	.00007	.00222	.00002	.0022	.00008
%RSD	255.04	14.070	92.780	28.59	3783.5

#1	.00008	.01422	-.00004	.0092	-.00005
#2	-.00002	.01736	-.00001	.0061	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.00055	.00072	.06051	.00014
Stddev	.00009	.00033	.00000	.01830	.00005
%RSD	21.280	60.434	.22784	30.242	34.210

#1	.00047	.00078	.00072	.04757	.00018
#2	.00035	.00031	.00072	.07345	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-13-A Acquired: 10/27/2018 4:56:19 Type: Unk
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00188	-.00023	.00005	.07945	-.00013
Stddev	.00149	.00001	.00014	.00565	.00007
%RSD	79.283	6.4814	269.58	7.1159	53.685

#1	.00083	-.00021	.00015	.08344	-.00008
#2	.00294	-.00024	-.00005	.07545	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.0164	-.00021	-.00156	-.02903
Stddev	.00198	.0025	.00089	.00019	.00804
%RSD	624.88	15.33	429.78	12.310	27.691

#1	-.00108	.0181	-.00084	-.00169	-.03471
#2	.00171	.0146	.00042	-.00142	-.02334

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.00005	-.00024	-.00059	-.00010
Stddev	.00016	.00003	.00005	.00091	.00026
%RSD	58.083	65.718	19.477	153.96	252.78

#1	.00016	.00007	-.00027	-.00124	.00008
#2	.00039	.00003	-.00021	.00005	-.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143842-C-13-A Acquired: 10/27/2018 4:56:19 Type: Unk
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00313**
 Stddev .00048
 %RSD 15.261

#1 **.00279**
 #2 **.00347**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2729.6	1491.9	46823.	3452.2
Stddev	.4	.5	36.	1.3
%RSD	.01364	.03406	.07630	.03845

#1	2729.4	1491.5	46848.	3451.3
#2	2729.9	1492.2	46797.	3453.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.531%	89.760%	98.066%	93.389%
Range				

Sample Name: CCV-4954075 Acquired: 10/27/2018 5:00:12 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50351	23.524	.50013	.51219	.50484	.46112	24.129
Stddev	.00040	.072	.00220	.00003	.00271	.00218	.062
%RSD	.07906	.30681	.43933	.00536	.53668	.47224	.25728

#1	.50323	23.473	.50168	.51221	.50292	.45958	24.085
#2	.50379	23.575	.49857	.51217	.50675	.46266	24.173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.53797	-.0100	.49487	.49116	.49901	F 22.106	24.626
Stddev	.00073	.0066	.00082	.00014	.00101	.097	.167
%RSD	.13636	65.64	.16640	.02808	.20291	.43984	.67804

#1	.53745	-.0146	.49545	.49126	.49972	22.037	24.508
#2	.53849	-.0053	.49429	.49106	.49829	22.175	24.744

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						25.000	
Range						-10.000%	

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48073	24.210	.49479	.51137	23.858	.47241	.50107
Stddev	.00290	.044	.00009	.00040	.153	.00076	.00333
%RSD	.60306	.18087	.01783	.07823	.63985	.16059	.66368

#1	.47868	24.179	.49485	.51165	23.751	.47294	.50342
#2	.48278	24.241	.49472	.51109	23.966	.47187	.49872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/27/2018 5:00:12 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.71	.52466	.51388	23.802	.51046	.49619	.49037
Stddev	.01	.00147	.00240	.128	.00315	.00361	.00067
%RSD	.0430	.27994	.46646	.53707	.61730	.72840	.13619

#1	27.70	.52362	.51557	23.711	.51269	.49364	.48990
#2	27.72	.52570	.51218	23.892	.50823	.49875	.49084

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46687	.48703	.48318
Stddev	.00061	.00023	.00093
%RSD	.12996	.04820	.19303

#1	.46644	.48720	.48252
#2	.46730	.48687	.48384

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2595.6	1453.6	45553.	3396.4
Stddev	.4	3.5	16.	10.8
%RSD	.01586	.23848	.03416	.31720

#1	2595.3	1456.0	45542.	3404.0
#2	2595.9	1451.1	45564.	3388.7

Sample Name: CCB-4957862 Acquired: 10/27/2018 5:03:55 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00604	.00070	.00026	.00002	.00004	-.00005	.00004
Stddev	.00051	.00561	.00204	.00016	.00002	.00003	.00213	.00008
%RSD	517.18	92.817	293.67	61.138	104.67	85.876	4571.3	214.22

#1	-.00026	.00208	-.00075	.00015	.00003	.00006	-.00155	-.00002
#2	.00046	.01001	.00214	.00038	.00000	.00001	.00146	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0111	-.00026	.00015	-.00006	.00021	.04916	.00085	.00077
Stddev	.0076	.00010	.00019	.00054	.00117	.01929	.00014	.00136
%RSD	68.44	39.805	124.96	911.65	545.28	39.243	17.056	174.89

#1	-.0057	-.00019	.00029	-.00044	-.00061	.06280	.00074	-.00018
#2	-.0165	-.00033	.00002	.00032	.00104	.03552	.00095	.00173

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00104	.05517	-.00049	.00049	.0101	-.00081	.00116
Stddev	.00004	.00020	.00021	.00027	.00047	.0053	.00018	.00232
%RSD	27.761	19.602	.37295	54.244	97.649	52.36	21.627	200.19

#1	.00018	.00090	.05531	-.00030	.00015	.0139	-.00093	.00279
#2	.00012	.00119	.05502	-.00068	.00082	.0064	-.00069	-.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 5:03:55 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00979	.00078	.00005	.00001	-.00035	-.00006	.00043
Stddev	.01874	.00007	.00002	.00015	.00135	.00002	.00004
%RSD	191.40	9.5133	51.130	2598.3	382.20	37.598	9.9923

#1	-.02304	.00083	.00003	-.00010	.00060	-.00004	.00046
#2	.00346	.00072	.00006	.00011	-.00131	-.00007	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2770.0	1489.4	47332.	3456.1
Stddev	3.6	1.8	71.	17.4
%RSD	.12826	.12138	.14971	.50238

#1	2767.5	1490.7	47382.	3443.8
#2	2772.5	1488.2	47282.	3468.4

Sample Name: CCVL-4954076 Acquired: 10/27/2018 5:07:48 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00550	.17343	.01483	.02151	.00206	.00185	.49228	.00226
Stddev	.00003	.00295	.00046	.00038	.00000	.00010	.00117	.00008
%RSD	.53659	1.6994	3.0930	1.7856	.15751	5.6157	.23852	3.7105
#1	.00548	.17552	.01515	.02123	.00206	.00178	.49311	.00220
#2	.00552	.17135	.01450	.02178	.00205	.00192	.49145	.00232

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	.00380	.00413	.00951	.04438	.50450	.02792	.19887
Stddev	.0054	.00009	.00005	.00039	.00013	.00292	.00016	.00275
%RSD	198.3	2.3167	1.2422	4.1263	.28496	.57897	.58771	1.3814
#1	-.0011	.00374	.00409	.00978	.04447	.50243	.02803	.20081
#2	.0065	.00386	.00416	.00923	.04429	.50656	.02780	.19692

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00273	.01004	.98212	.00945	.00900	.2268	.02032	.02244
Stddev	.00006	.00014	.00332	.00001	.00100	.0015	.00071	.00169
%RSD	2.1999	1.3717	.33756	.06608	11.163	.6510	3.5111	7.5364
#1	.00277	.01014	.97977	.00945	.00971	.2257	.01981	.02124
#2	.00268	.00994	.98446	.00944	.00829	.2278	.02082	.02364

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4954076 Acquired: 10/27/2018 5:07:48 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43694	.01033	.00487	.00464	.01846	.00459	.01041
Stddev	.00241	.00045	.00006	.00015	.00024	.00008	.00068
%RSD	.55156	4.3855	1.2788	3.2987	1.2873	1.7396	6.5693

#1	.43524	.01001	.00491	.00453	.01863	.00465	.00992
#2	.43865	.01065	.00482	.00474	.01829	.00454	.01089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2740.7	1478.8	46793.	3383.5
Stddev	.8	.4	183.	6.0
%RSD	.02783	.02674	.39050	.17640

#1	2741.3	1479.1	46922.	3379.3
#2	2740.2	1478.6	46663.	3387.7

Sample Name: ICSA-4901305 Acquired: 10/27/2018 5:11:39 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00144	467.45	-.00737	.00040	.00094	.00003	443.38	.00061
Stddev	.00016	1.42	.00230	.00036	.00001	.00003	4.27	.00005
%RSD	10.847	.30317	31.261	89.340	.74271	99.012	.96399	8.2381

#1	-.00155	466.45	-.00900	.00066	.00094	.00001	440.35	.00065
#2	-.00133	468.45	-.00574	.00015	.00095	.00005	446.40	.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0691	.00009	-.00135	.00052	164.23	.07289	.00598	486.04
Stddev	.0004	.00016	.00012	.00035	.74	.02938	.00069	1.50
%RSD	.5401	169.19	8.5682	67.682	.45114	40.308	11.484	.30824

#1	.0689	.00020	-.00143	.00027	163.71	.05211	.00647	484.99
#2	.0694	-.00002	-.00127	.00077	164.75	.09366	.00549	487.10

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	-.00077	.11774	.00086	-.00110	.0447	-.01612	-.00779
Stddev	.00011	.00031	.00155	.00035	.00005	.0030	.00175	.00080
%RSD	20.055	40.507	1.3144	40.684	4.5912	6.812	10.876	10.261

#1	-.00064	-.00099	.11883	.00111	-.00114	.0468	-.01488	-.00722
#2	-.00048	-.00055	.11664	.00061	-.00107	.0425	-.01736	-.00835

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICSA-4901305 Acquired: 10/27/2018 5:11:39 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02052	-.00071	.01487	-.00097	-.00239	.00002	.00241
Stddev	.00242	.00018	.00008	.00032	.00343	.00004	.00075
%RSD	11.815	25.076	.52265	32.645	143.23	178.23	31.245

#1	-.02224	-.00083	.01493	-.00074	-.00482	-.00001	.00295
#2	-.01881	-.00058	.01482	-.00119	.00003	.00005	.00188

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2125.9	1294.8	40577.	3207.5
Stddev	4.6	4.1	31.	19.5
%RSD	.21606	.31897	.07727	.60761

#1	2122.6	1291.9	40599.	3221.3
#2	2129.1	1297.7	40555.	3193.7

Sample Name: ICSAB-4954073 Acquired: 10/27/2018 5:15:39 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21448	486.47	.09017	.00478	.49358	.45244	448.25	1.0803
Stddev	.00011	.62	.00359	.00021	.00212	.00305	2.36	.0002
%RSD	.04999	.12808	3.9838	4.4902	.42894	.67324	.52556	.02262
#1	.21456	486.91	.08763	.00494	.49209	.45460	449.92	1.0801
#2	.21440	486.03	.09271	.00463	.49508	.45029	446.58	1.0805

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0304	.47975	.44335	.52453	81.869	.07124	.51992	494.67
Stddev	.0026	.00115	.00195	.00018	.487	.00351	.00094	2.41
%RSD	8.472	.24074	.43968	.03343	.59469	4.9326	.18095	.48712
#1	.0323	.48057	.44197	.52465	82.213	.06875	.51925	492.97
#2	.0286	.47893	.44473	.52441	81.524	.07372	.52058	496.37

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43622	.00056	.23926	.88953	.04777	1.149	.60870	.04808
Stddev	.00042	.00083	.00207	.00196	.00049	.012	.00370	.00062
%RSD	.09679	150.04	.86542	.22048	1.0237	1.010	.60803	1.2953
#1	.43592	-.00003	.23779	.89092	.04812	1.141	.61132	.04764
#2	.43652	.00115	.24072	.88814	.04743	1.157	.60609	.04852

Check ? Value Range	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: ICSAB-4954073 Acquired: 10/27/2018 5:15:39 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.88368	.00014	.47458	.00076	.08997	.46861	.90506
Stddev	.00030	.00086	.00039	.00001	.00170	.00101	.00145
%RSD	.03376	593.66	.08295	1.0861	1.8884	.21642	.15993

#1	.88389	-.00046	.47486	.00076	.08876	.46789	.90608
#2	.88347	.00075	.47430	.00075	.09117	.46933	.90404

Check ?	Chk Pass	None	None	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2127.4	1304.1	40482.	3211.3
Stddev	1.2	1.9	159.	20.1
%RSD	.05452	.14345	.39258	.62673

#1	2128.2	1305.4	40594.	3197.0
#2	2126.6	1302.8	40370.	3225.5

Sample Name: CCV-4954075 Acquired: 10/27/2018 5:19:37 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50377	23.769	.50458	.51484	.50600	.45854	24.169
Stddev	.00069	.001	.00339	.00126	.00157	.00095	.033
%RSD	.13725	.00460	.67278	.24542	.30966	.20650	.13680

#1	.50328	23.770	.50699	.51395	.50710	.45787	24.146
#2	.50425	23.768	.50218	.51574	.50489	.45921	24.192

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54036	-.0126	.49627	.49029	.49900	F 22.100	24.592
Stddev	.00055	.0093	.00127	.00299	.00011	.009	.010
%RSD	.10093	73.47	.25496	.60987	.02278	.03942	.04093

#1	.53998	-.0061	.49717	.49241	.49908	22.093	24.599
#2	.54075	-.0192	.49538	.48818	.49892	22.106	24.584

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						25.000	
Range						-10.000%	

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48245	24.223	.49387	.51112	23.949	.47237	.50386
Stddev	.00124	.028	.00031	.00137	.014	.00116	.00041
%RSD	.25776	.11416	.06264	.26755	.05878	.24576	.08171

#1	.48333	24.203	.49409	.51209	23.959	.47319	.50415
#2	.48157	24.242	.49365	.51016	23.939	.47155	.50357

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/27/2018 5:19:37 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.85	.53153	.51310	23.944	.51300	.49937	.48988
Stddev	.00	.00146	.00038	.145	.00071	.00013	.00121
%RSD	.0047	.27468	.07387	.60504	.13890	.02645	.24664

#1	27.85	.53256	.51337	23.842	.51351	.49928	.48902
#2	27.85	.53050	.51283	24.046	.51250	.49946	.49073

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46580	.48826	.48749
Stddev	.00148	.00241	.00254
%RSD	.31746	.49293	.52116

#1	.46684	.48996	.48929
#2	.46475	.48656	.48570

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2589.1	1447.2	45361.	3359.0
Stddev	.6	4.4	55.	15.0
%RSD	.02201	.30067	.12162	.44556

#1	2589.5	1450.2	45322.	3348.4
#2	2588.7	1444.1	45400.	3369.5

Sample Name: CCB-4957862 Acquired: 10/27/2018 5:23:20 Type: QC
Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
User: emb Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.01429	-.00062	.00052	.00003	-.00001	.00137	.00009
Stddev	.00038	.00497	.00044	.00006	.00000	.00002	.00227	.00008
%RSD	294.75	34.789	70.561	11.983	17.589	127.23	165.31	93.266

#1	.00014	.01077	-.00031	.00056	.00003	-.00000	.00297	.00003
#2	-.00040	.01780	-.00094	.00047	.00002	-.00002	-.00023	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0114	-.00007	.00015	.00004	-.00037	.00841	.00048	.00414
Stddev	.0155	.00004	.00008	.00029	.00172	.01849	.00025	.00103
%RSD	136.2	53.589	57.310	800.78	466.55	219.95	52.434	24.977

#1	-.0004	-.00004	.00021	-.00017	-.00159	.02148	.00065	.00487
#2	-.0223	-.00009	.00009	.00024	.00085	-.00467	.00030	.00341

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00107	.03373	-.00027	.00018	.0091	.00004	-.00138
Stddev	.00004	.00020	.00191	.00033	.00114	.0025	.00247	.00107
%RSD	36.028	18.271	5.6665	121.58	636.77	27.86	5580.1	77.209

#1	.00015	.00121	.03238	-.00051	.00098	.0109	-.00170	-.00214
#2	.00009	.00093	.03508	-.00004	-.00063	.0073	.00179	-.00063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/27/2018 5:23:20 Type: QC
 Method: oct2018updatediecs(v24) Mode: CONC Corr. Factor: 1.000000
 User: emb Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00781	.00018	.00001	.00024	.00029	-.00008	-.00005
Stddev	.00830	.00029	.00000	.00005	.00091	.00001	.00001
%RSD	106.25	163.79	.78161	20.240	317.81	16.759	26.241

#1	-.00194	.00039	.00001	.00028	.00093	-.00007	-.00006
#2	-.01368	-.00003	.00001	.00021	-.00036	-.00009	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.1	1473.6	47394.	3427.3
Stddev	.9	.4	29.	16.0
%RSD	.03147	.03046	.06110	.46796

#1	2766.5	1473.3	47374.	3416.0
#2	2767.7	1473.9	47415.	3438.7

Run File: i1103118a

Instrument: ICAP1

Analyst: EMB

Data Review: 11/1/18

Spikes Ids: 4805384(W1), 4805383(W2), 4899315(Sn), 4899367(Ag), 4844446(Si), 4844449(S), 4370411(TCLP)

Pipette Ids: 12/26/18-(1-11)

Internal Standard: 4927696

Seq#	Run File ID	Sample ID	Date / Time	Type
1	i1103118a	ICIS-4957862	10/31/18 08:58 AM	Standard
2	i1103118a	IC-4970377	10/31/18 09:01 AM	Standard
3	i1103118a	IC-4927698	10/31/18 09:05 AM	Standard
4	i1103118a	IC-4927697	10/31/18 09:09 AM	Standard
5	i1103118a	ICV-4954074	10/31/18 09:13 AM	QC
6	i1103118a	ICB-4957862	10/31/18 09:16 AM	QC
7	i1103118a	iCVL-4970377	10/31/18 09:20 AM	QC
8	i1103118a	ICSA-4901305	10/31/18 09:24 AM	QC
9	i1103118a	ICSAB-4954073	10/31/18 09:28 AM	QC
10	i1103118a	ICEX1	10/31/18 09:32 AM	Unknown
11	i1103118a	ICEX2	10/31/18 09:36 AM	Unknown
12	i1103118a	ICEX3	10/31/18 09:40 AM	Unknown
13	i1103118a	ICEX4	10/31/18 09:44 AM	Unknown
14	i1103118a	ICEX5	10/31/18 09:48 AM	Unknown
15	i1103118a	CCV-4954075	10/31/18 09:52 AM	QC
16	i1103118a	CCB-4957862	10/31/18 09:55 AM	QC
17	i1103118a	CCVL-4970377	10/31/18 10:06 AM	QC
18	i1103118a	480-144104-B-1-A	10/31/18 10:10 AM	Unknown
19	i1103118a	480-144104-B-1-B MS	10/31/18 10:13 AM	Unknown
20	i1103118a	480-144104-B-1-C MSD	10/31/18 10:17 AM	Unknown
21	i1103118a	480-144111-G-1-A@20	10/31/18 10:21 AM	Unknown
22	i1103118a	480-144111-G-3-A@20	10/31/18 10:25 AM	Unknown
23	i1103118a	blank	10/31/18 10:29 AM	Unknown
24	i1103118a	MB 480-442021/1-A	10/31/18 10:33 AM	Unknown
25	i1103118a	LCS 480-442021/2-A	10/31/18 10:37 AM	Unknown
26	i1103118a	480-144143-B-5-A	10/31/18 10:41 AM	Unknown
27	i1103118a	CCV-4954075	10/31/18 10:44 AM	QC
28	i1103118a	CCB-4957862	10/31/18 10:48 AM	QC
29	i1103118a	CCVL-4970377	10/31/18 10:52 AM	QC
30	i1103118a	480-144010-A-2-A@5	10/31/18 10:56 AM	Unknown
31	i1103118a	480-144100-A-4-A@2	10/31/18 11:00 AM	Unknown
32	i1103118a	143652-4 tot	10/31/18 11:04 AM	Unknown
33	i1103118a	143652-5 tot	10/31/18 11:07 AM	Unknown
34	i1103118a	143780-2 sol	10/31/18 11:11 AM	Unknown
35	i1103118a	143538-12 tot	10/31/18 11:15 AM	Unknown
36	i1103118a	143538-13 tot	10/31/18 11:19 AM	Unknown
37	i1103118a	143538-14 tot	10/31/18 11:23 AM	Unknown
38	i1103118a	143538-15 tot	10/31/18 11:26 AM	Unknown
39	i1103118a	CCV-4954075	10/31/18 11:30 AM	QC
40	i1103118a	CCB-4957862	10/31/18 11:34 AM	QC
41	i1103118a	CCVL-4970377	10/31/18 11:38 AM	QC
42	i1103118a	143538-16 tot	10/31/18 11:42 AM	Unknown

43	i1103118a	143538-17 tot	10/31/18 11:45 AM Unknown
44	i1103118a	143538-18 tot	10/31/18 11:49 AM Unknown
45	i1103118a	143538-1 tot	10/31/18 11:53 AM Unknown
46	i1103118a	143583-3 tot	10/31/18 11:57 AM Unknown
47	i1103118a	143538-4 tot	10/31/18 12:01 PM Unknown
48	i1103118a	143583-5 tot	10/31/18 12:04 PM Unknown
49	i1103118a	143538-6 tot	10/31/18 12:08 PM Unknown
50	i1103118a	143535-7 tot	10/31/18 12:12 PM Unknown
51	i1103118a	CCV-4954075	10/31/18 12:16 PM QC
52	i1103118a	CCB-4957862	10/31/18 12:19 PM QC
53	i1103118a	CCVL-4970377	10/31/18 12:23 PM QC
54	i1103118a	143404-4 tot	10/31/18 12:27 PM Unknown
55	i1103118a	143779-5 tot	10/31/18 12:31 PM Unknown
56	i1103118a	143779-6 tot	10/31/18 12:35 PM Unknown
57	i1103118a	143799-3 tot	10/31/18 12:39 PM Unknown
58	i1103118a	143799-4 tot	10/31/18 12:42 PM Unknown
59	i1103118a	143785-2 tot	10/31/18 12:46 PM Unknown
60	i1103118a	143785-4 tot	10/31/18 12:50 PM Unknown
61	i1103118a	143785-6 tot	10/31/18 12:54 PM Unknown
62	i1103118a	blank	10/31/18 12:58 PM Unknown
63	i1103118a	CCV-4954075	10/31/18 01:01 PM QC
64	i1103118a	CCB-4957862	10/31/18 01:05 PM QC
65	i1103118a	CCVL-4970377	10/31/18 01:09 PM QC
66	i1103118a	MB 480-441741/1-A	10/31/18 01:13 PM Unknown
67	i1103118a	LCS 480-441741/2-A	10/31/18 01:17 PM Unknown
68	i1103118a	MB 480-441628/1-A	10/31/18 01:20 PM Unknown
69	i1103118a	LCS 480-441628/2-A	10/31/18 01:24 PM Unknown
70	i1103118a	480-144022-D-3-A	10/31/18 01:28 PM Unknown
71	i1103118a	480-144022-D-3-Asd@5	10/31/18 01:32 PM Unknown
72	i1103118a	480-144022-D-3-Apds	10/31/18 01:36 PM Unknown
73	i1103118a	480-144022-D-3-B MS	10/31/18 01:39 PM Unknown
74	i1103118a	480-144022-D-3-C MSD	10/31/18 01:43 PM Unknown
75	i1103118a	CCV-4954075	10/31/18 01:47 PM QC
76	i1103118a	CCB-4957862	10/31/18 01:50 PM QC
77	i1103118a	CCVL-4970377	10/31/18 01:54 PM QC
78	i1103118a	480-143941-H-1-A	10/31/18 01:58 PM Unknown
79	i1103118a	480-144016-E-1-A	10/31/18 02:02 PM Unknown
80	i1103118a	480-144013-D-1-A	10/31/18 02:06 PM Unknown
81	i1103118a	480-144021-G-1-A	10/31/18 02:10 PM Unknown
82	i1103118a	480-144021-G-2-A	10/31/18 02:14 PM Unknown
83	i1103118a	480-144021-G-3-A	10/31/18 02:18 PM Unknown
84	i1103118a	480-144021-G-4-A	10/31/18 02:21 PM Unknown
85	i1103118a	480-143979-B-1-A	10/31/18 02:25 PM Unknown
86	i1103118a	blank	10/31/18 02:29 PM Unknown
87	i1103118a	CCV-4954075	10/31/18 02:33 PM QC
88	i1103118a	CCB-4957862	10/31/18 02:37 PM QC
89	i1103118a	CCVL-4970377	10/31/18 02:41 PM QC
90	i1103118a	MB 480-441986/1-A	10/31/18 02:44 PM Unknown
91	i1103118a	LCS 480-441986/2-A	10/31/18 02:48 PM Unknown
92	i1103118a	480-144063-L-1-A	10/31/18 02:52 PM Unknown
93	i1103118a	480-144066-L-1-A	10/31/18 02:56 PM Unknown
94	i1103118a	480-144111-G-1-A@10	10/31/18 03:00 PM Unknown

95	i1103118a	480-144111-G-3-A@10	10/31/18 03:04 PM Unknown
96	i1103118a	480-144113-G-1-A	10/31/18 03:08 PM Unknown
97	i1103118a	480-144132-J-1-A	10/31/18 03:12 PM Unknown
98	i1103118a	480-144132-J-3-A	10/31/18 03:16 PM Unknown
99	i1103118a	CCV-4954075	10/31/18 03:20 PM QC
100	i1103118a	CCB-4957862	10/31/18 03:24 PM QC
101	i1103118a	CCVL-4970377	10/31/18 03:31 PM QC
102	i1103118a	MB 480-441666/1-A	10/31/18 03:35 PM Unknown
103	i1103118a	LCS 480-441666/2-A	10/31/18 03:39 PM Unknown
104	i1103118a	480-144082-I-1-A	10/31/18 03:43 PM Unknown
105	i1103118a	480-144082-I-1-Asd@5	10/31/18 03:46 PM Unknown
106	i1103118a	480-144082-I-1-Apds	10/31/18 03:50 PM Unknown
107	i1103118a	480-144082-I-1-B MS	10/31/18 03:54 PM Unknown
108	i1103118a	480-144082-I-1-C MSD	10/31/18 03:58 PM Unknown
109	i1103118a	480-144082-I-2-A	10/31/18 04:02 PM Unknown
110	i1103118a	480-143568-E-1-A	10/31/18 04:05 PM Unknown
111	i1103118a	CCV-4954075	10/31/18 04:09 PM QC
112	i1103118a	CCB-4957862	10/31/18 04:13 PM QC
113	i1103118a	CCVL-4970377	10/31/18 04:17 PM QC
114	i1103118a	480-143568-E-2-A	10/31/18 04:21 PM Unknown
115	i1103118a	480-143568-E-3-A	10/31/18 04:24 PM Unknown
116	i1103118a	480-143568-E-4-A	10/31/18 04:28 PM Unknown
117	i1103118a	480-143568-E-5-A	10/31/18 04:32 PM Unknown
118	i1103118a	480-143865-C-1-A	10/31/18 04:36 PM Unknown
119	i1103118a	480-143865-C-2-A	10/31/18 04:40 PM Unknown
120	i1103118a	480-143865-D-3-A	10/31/18 04:44 PM Unknown
121	i1103118a	480-143865-C-4-A	10/31/18 04:47 PM Unknown
122	i1103118a	480-143865-C-5-A	10/31/18 04:51 PM Unknown
123	i1103118a	CCV-4954075	10/31/18 04:55 PM QC
124	i1103118a	CCB-4957862	10/31/18 04:59 PM QC
125	i1103118a	CCVL-4970377	10/31/18 05:03 PM QC
126	i1103118a	480-143865-C-6-A	10/31/18 05:06 PM Unknown
127	i1103118a	480-143868-B-1-A	10/31/18 05:10 PM Unknown
128	i1103118a	480-143868-C-2-A	10/31/18 05:14 PM Unknown
129	i1103118a	480-143868-B-3-A	10/31/18 05:18 PM Unknown
130	i1103118a	480-143868-B-4-A	10/31/18 05:22 PM Unknown
131	i1103118a	480-143708-A-1-A	10/31/18 05:25 PM Unknown
132	i1103118a	480-143708-B-2-A	10/31/18 05:29 PM Unknown
133	i1103118a	480-143708-D-3-A	10/31/18 05:33 PM Unknown
134	i1103118a	blank	10/31/18 05:37 PM Unknown
135	i1103118a	CCV-4954075	10/31/18 05:41 PM QC
136	i1103118a	CCB-4957862	10/31/18 05:44 PM QC
137	i1103118a	CCVL-4970377	10/31/18 05:48 PM QC
138	i1103118a	MB 480-441218/1-A	10/31/18 05:52 PM Unknown
139	i1103118a	LCS 480-441218/2-A	10/31/18 05:56 PM Unknown
140	i1103118a	480-143548-H-2-D	10/31/18 06:00 PM Unknown
141	i1103118a	480-143548-G-3-B	10/31/18 06:03 PM Unknown
142	i1103118a	480-143548-G-4-B	10/31/18 06:07 PM Unknown
143	i1103118a	480-143548-G-5-B	10/31/18 06:11 PM Unknown
144	i1103118a	480-143635-D-1-B	10/31/18 06:15 PM Unknown
145	i1103118a	480-143635-D-2-B	10/31/18 06:19 PM Unknown
146	i1103118a	480-143635-D-3-B	10/31/18 06:22 PM Unknown

147	i1103118a	CCV-4954075	10/31/18 06:26 PM QC
148	i1103118a	CCB-4957862	10/31/18 06:30 PM QC
149	i1103118a	CCVL-4970377	10/31/18 06:34 PM QC
150	i1103118a	480-143636-D-1-A	10/31/18 06:38 PM Unknown
151	i1103118a	480-143841-A-5-A	10/31/18 06:41 PM Unknown
152	i1103118a	480-143841-A-6-A	10/31/18 06:45 PM Unknown
153	i1103118a	480-143841-A-7-A	10/31/18 06:50 PM Unknown
154	i1103118a	480-143841-A-8-A	10/31/18 06:53 PM Unknown
155	i1103118a	480-143841-A-9-A	10/31/18 06:57 PM Unknown
156	i1103118a	480-143841-A-11-A	10/31/18 07:01 PM Unknown
157	i1103118a	480-143899-C-1-A	10/31/18 07:05 PM Unknown
158	i1103118a	480-143899-C-1-Asd@5	10/31/18 07:09 PM Unknown
159	i1103118a	CCV-4954075	10/31/18 07:13 PM QC
160	i1103118a	CCB-4957862	10/31/18 07:16 PM QC
161	i1103118a	CCVL-4970377	10/31/18 07:20 PM QC
162	i1103118a	480-143899-C-1-Apds	10/31/18 07:24 PM Unknown
163	i1103118a	480-143899-C-1-B MS	10/31/18 07:28 PM Unknown
164	i1103118a	480-143899-C-1-C MSD	10/31/18 07:31 PM Unknown
165	i1103118a	480-143899-C-2-A	10/31/18 07:35 PM Unknown
166	i1103118a	480-143899-C-3-A	10/31/18 07:39 PM Unknown
167	i1103118a	480-143899-C-4-A	10/31/18 07:43 PM Unknown
168	i1103118a	480-143899-C-5-A	10/31/18 07:46 PM Unknown
169	i1103118a	LCSD 480-441218/24-A	10/31/18 07:50 PM Unknown
170	i1103118a	blank	10/31/18 07:54 PM Unknown
171	i1103118a	CCV-4954075	10/31/18 07:58 PM QC
172	i1103118a	CCB-4957862	10/31/18 08:02 PM QC
173	i1103118a	CCVL-4970377	10/31/18 08:05 PM QC
174	i1103118a	MB 480-440848/1-A	10/31/18 08:09 PM Unknown
175	i1103118a	LCS 480-440848/2-A	10/31/18 08:13 PM Unknown
176	i1103118a	480-143764-D-1-A	10/31/18 08:17 PM Unknown
177	i1103118a	480-143764-D-1-Asd@5	10/31/18 08:21 PM Unknown
178	i1103118a	480-143764-D-1-Apds	10/31/18 08:24 PM Unknown
179	i1103118a	480-143764-D-1-B MS	10/31/18 08:28 PM Unknown
180	i1103118a	480-143764-D-1-C MSD	10/31/18 08:32 PM Unknown
181	i1103118a	480-143764-D-2-A	10/31/18 08:35 PM Unknown
182	i1103118a	480-143764-D-3-A	10/31/18 08:39 PM Unknown
183	i1103118a	CCV-4954075	10/31/18 08:43 PM QC
184	i1103118a	CCB-4957862	10/31/18 08:47 PM QC
185	i1103118a	CCVL-4970377	10/31/18 08:51 PM QC
186	i1103118a	480-143764-D-4-A	10/31/18 08:55 PM Unknown
187	i1103118a	480-143764-D-5-A	10/31/18 08:58 PM Unknown
188	i1103118a	480-143764-D-6-A	10/31/18 09:02 PM Unknown
189	i1103118a	480-143764-D-7-A	10/31/18 09:06 PM Unknown
190	i1103118a	480-143764-D-8-A	10/31/18 09:10 PM Unknown
191	i1103118a	480-143813-A-1-A	10/31/18 09:14 PM Unknown
192	i1103118a	480-143813-A-2-A	10/31/18 09:17 PM Unknown
193	i1103118a	480-143813-A-3-A	10/31/18 09:21 PM Unknown
194	i1103118a	480-143813-A-4-A	10/31/18 09:25 PM Unknown
195	i1103118a	CCV-4954075	10/31/18 09:29 PM QC
196	i1103118a	CCB-4957862	10/31/18 09:33 PM QC
197	i1103118a	CCVL-4970377	10/31/18 09:36 PM QC
198	i1103118a	480-143813-A-5-A	10/31/18 09:40 PM Unknown

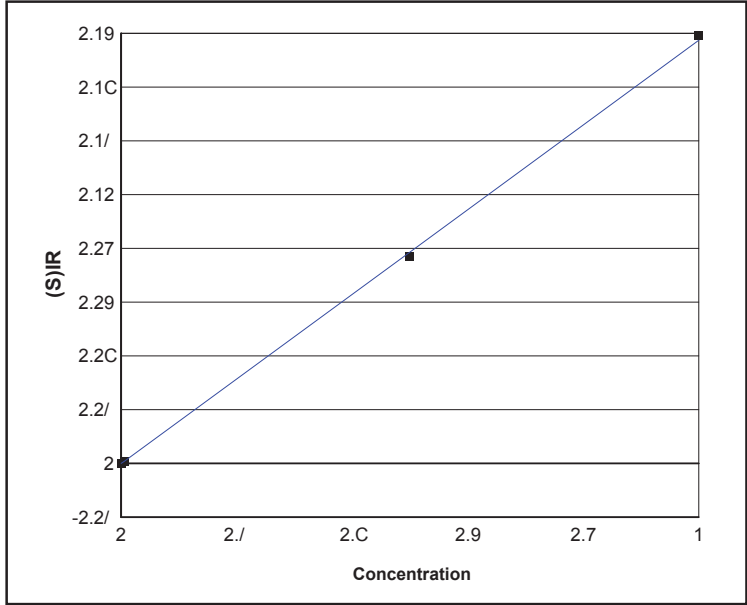
199	i1103118a	480-143814-A-1-A	10/31/18 09:44 PM Unknown
200	i1103118a	480-143814-A-2-A	10/31/18 09:48 PM Unknown
201	i1103118a	480-143814-A-2-B MS	10/31/18 09:52 PM Unknown
202	i1103118a	480-143814-A-2-C MSD	10/31/18 09:56 PM Unknown
203	i1103118a	480-143814-A-5-A	10/31/18 10:01 PM Unknown
204	i1103118a	480-143814-A-4-A	10/31/18 10:04 PM Unknown
205	i1103118a	480-143814-A-3-A	10/31/18 10:08 PM Unknown
206	i1103118a	480-143734-F-1-A	10/31/18 10:12 PM Unknown
207	i1103118a	CCV-4954075	10/31/18 10:16 PM QC
208	i1103118a	CCB-4957862	10/31/18 10:20 PM QC
209	i1103118a	CCVL-4970377	10/31/18 10:24 PM QC
210	i1103118a	480-143734-F-3-A	10/31/18 10:27 PM Unknown
211	i1103118a	MB 480-441229/1-A	10/31/18 10:31 PM Unknown
212	i1103118a	LCS 480-441229/2-A	10/31/18 10:35 PM Unknown
213	i1103118a	480-143841-B-7-B	10/31/18 10:39 PM Unknown
214	i1103118a	480-143841-B-8-B	10/31/18 10:43 PM Unknown
215	i1103118a	480-143841-B-9-B	10/31/18 10:47 PM Unknown
216	i1103118a	480-143841-B-10-A	10/31/18 10:51 PM Unknown
217	i1103118a	143841-B-10-Asd@5	10/31/18 10:54 PM Unknown
218	i1103118a	480-143841-B-10-Apds	10/31/18 10:58 PM Unknown
219	i1103118a	CCV-4954075	10/31/18 11:02 PM QC
220	i1103118a	CCB-4957862	10/31/18 11:06 PM QC
221	i1103118a	CCVL-4970377	10/31/18 11:09 PM QC
222	i1103118a	480-143841-B-10-B MS	10/31/18 11:13 PM Unknown
223	i1103118a	143841-B-10-C MSd	10/31/18 11:17 PM Unknown
224	i1103118a	480-143841-B-11-B	10/31/18 11:21 PM Unknown
225	i1103118a	480-143841-B-12-B	10/31/18 11:24 PM Unknown
226	i1103118a	480-143841-B-13-A	10/31/18 11:28 PM Unknown
227	i1103118a	480-143880-B-2-A	10/31/18 11:32 PM Unknown
228	i1103118a	480-143880-B-3-A	10/31/18 11:36 PM Unknown
229	i1103118a	480-143880-B-4-A	10/31/18 11:40 PM Unknown
230	i1103118a	480-143880-C-5-A	10/31/18 11:44 PM Unknown
231	i1103118a	CCV-4954075	10/31/18 11:47 PM QC
232	i1103118a	CCB-4957862	10/31/18 11:51 PM QC
233	i1103118a	CCVL-4970377	10/31/18 11:55 PM QC
234	i1103118a	480-143880-B-6-A	10/31/18 11:59 PM Unknown
235	i1103118a	480-143880-B-7-A	11/01/18 12:03 AM Unknown
236	i1103118a	480-143880-B-8-A	11/01/18 12:06 AM Unknown
237	i1103118a	480-143880-C-9-A	11/01/18 12:10 AM Unknown
238	i1103118a	480-143880-C-10-A	11/01/18 12:14 AM Unknown
239	i1103118a	480-143880-C-11-A	11/01/18 12:18 AM Unknown
240	i1103118a	480-143880-B-12-A	11/01/18 12:22 AM Unknown
241	i1103118a	480-143880-B-13-A	11/01/18 12:25 AM Unknown
242	i1103118a	480-143880-B-14-A	11/01/18 12:29 AM Unknown
243	i1103118a	CCV-4954075	11/01/18 12:33 AM QC
244	i1103118a	CCB-4957862	11/01/18 12:37 AM QC
245	i1103118a	CCVL-4970377	11/01/18 12:41 AM QC
246	i1103118a	LCSD 480-441229/25-A	11/01/18 12:44 AM Unknown
247	i1103118a	LB 480-442254/1-B	11/01/18 12:48 AM Unknown
248	i1103118a	MB 480-442494/2-A	11/01/18 12:52 AM Unknown
249	i1103118a	LCS 480-442494/3-A	11/01/18 12:56 AM Unknown
250	i1103118a	480-143927-B-1-C	11/01/18 01:00 AM Unknown

251	i1103118a	480-144035-A-1-B	11/01/18 01:04 AM Unknown
252	i1103118a	480-144035-A-1-Bsd@5	11/01/18 01:08 AM Unknown
253	i1103118a	480-144035-A-1-Bpds	11/01/18 01:12 AM Unknown
254	i1103118a	480-144035-A-1-C MS	11/01/18 01:16 AM Unknown
255	i1103118a	CCV-4954075	11/01/18 01:19 AM QC
256	i1103118a	CCB-4957862	11/01/18 01:23 AM QC
257	i1103118a	CCVL-4970377	11/01/18 01:27 AM QC
258	i1103118a	480-144035-A-1-D MSD	11/01/18 01:31 AM Unknown
259	i1103118a	480-144100-A-1-D	11/01/18 01:35 AM Unknown
260	i1103118a	480-144100-A-2-D	11/01/18 01:39 AM Unknown
261	i1103118a	480-144100-A-5-D	11/01/18 01:43 AM Unknown
262	i1103118a	480-144103-A-1-B	11/01/18 01:47 AM Unknown
263	i1103118a	480-144149-A-1-D	11/01/18 01:51 AM Unknown
264	i1103118a	480-144163-B-1-C	11/01/18 01:55 AM Unknown
265	i1103118a	480-144284-A-1-C	11/01/18 01:59 AM Unknown
266	i1103118a	480-144100-A-6-D	11/01/18 02:03 AM Unknown
267	i1103118a	CCV-4954075	11/01/18 02:07 AM QC
268	i1103118a	CCB-4957862	11/01/18 02:10 AM QC
269	i1103118a	CCVL-4970377	11/01/18 02:14 AM QC
270	i1103118a	MB 480-442160/1-A	11/01/18 02:18 AM Unknown
271	i1103118a	LCS 480-442160/2-A	11/01/18 02:22 AM Unknown
272	i1103118a	460-166941-E-10-D	11/01/18 02:26 AM Unknown
273	i1103118a	480-144049-B-2-A	11/01/18 02:30 AM Unknown
274	i1103118a	480-144049-B-3-A	11/01/18 02:34 AM Unknown
275	i1103118a	480-144049-B-3-Asd@5	11/01/18 02:37 AM Unknown
276	i1103118a	480-144049-B-3-Apds	11/01/18 02:41 AM Unknown
277	i1103118a	480-144049-B-3-B MS	11/01/18 02:45 AM Unknown
278	i1103118a	480-144049-B-3-C MSD	11/01/18 02:49 AM Unknown
279	i1103118a	CCV-4954075	11/01/18 02:52 AM QC
280	i1103118a	CCB-4957862	11/01/18 02:56 AM QC
281	i1103118a	CCVL-4970377	11/01/18 03:00 AM QC
282	i1103118a	480-144049-B-4-A	11/01/18 03:04 AM Unknown
283	i1103118a	480-144049-B-5-A	11/01/18 03:07 AM Unknown
284	i1103118a	480-144049-B-6-A	11/01/18 03:11 AM Unknown
285	i1103118a	480-144049-B-7-A	11/01/18 03:15 AM Unknown
286	i1103118a	MB 480-441992/1-A	11/01/18 03:19 AM Unknown
287	i1103118a	LCS 480-441992/2-A	11/01/18 03:23 AM Unknown
288	i1103118a	480-144121-C-8-A	11/01/18 03:26 AM Unknown
289	i1103118a	480-144121-C-8-Asd@5	11/01/18 03:30 AM Unknown
290	i1103118a	480-144121-C-8-Apds	11/01/18 03:34 AM Unknown
291	i1103118a	CCV-4954075	11/01/18 03:38 AM QC
292	i1103118a	CCB-4957862	11/01/18 03:41 AM QC
293	i1103118a	CCVL-4970377	11/01/18 03:45 AM QC
294	i1103118a	480-144121-C-8-B MS	11/01/18 03:49 AM Unknown
295	i1103118a	480-144121-C-8-C MSD	11/01/18 03:53 AM Unknown
296	i1103118a	480-144146-B-1-A	11/01/18 03:56 AM Unknown
297	i1103118a	480-144146-B-2-A	11/01/18 04:00 AM Unknown
298	i1103118a	480-144147-B-1-A	11/01/18 04:04 AM Unknown
299	i1103118a	480-143819-G-4-B	11/01/18 04:08 AM Unknown
300	i1103118a	480-144191-F-1-A@5	11/01/18 04:12 AM Unknown
301	i1103118a	blank	11/01/18 04:16 AM Unknown
302	i1103118a	MB 480-440852/1-A	11/01/18 04:20 AM Unknown

303	i1103118a	CCV-4954075	11/01/18 04:24 AM QC
304	i1103118a	CCB-4957862	11/01/18 04:27 AM QC
305	i1103118a	CCVL-4970377	11/01/18 04:31 AM QC
306	i1103118a	LCS 480-440852/2-A	11/01/18 04:35 AM Unknown
307	i1103118a	460-166941-E-1-A	11/01/18 04:39 AM Unknown
308	i1103118a	460-166941-E-2-A	11/01/18 04:43 AM Unknown
309	i1103118a	460-166941-E-3-A	11/01/18 04:47 AM Unknown
310	i1103118a	460-166941-E-4-A	11/01/18 04:51 AM Unknown
311	i1103118a	460-166941-D-5-A	11/01/18 04:55 AM Unknown
312	i1103118a	460-166941-D-5-Asd@5	11/01/18 04:58 AM Unknown
313	i1103118a	460-166941-D-5-Apds	11/01/18 05:02 AM Unknown
314	i1103118a	460-166941-E-7-B@5	11/01/18 05:06 AM Unknown
315	i1103118a	CCV-4954075	11/01/18 05:10 AM QC
316	i1103118a	CCB-4957862	11/01/18 05:14 AM QC
317	i1103118a	CCVL-4970377	11/01/18 05:18 AM QC
318	i1103118a	460-166941-E-7-B	11/01/18 05:22 AM Unknown
319	i1103118a	166941-E-7-C MS	11/01/18 05:26 AM Unknown
320	i1103118a	166941-E-7-C MS@5	11/01/18 05:30 AM Unknown
321	i1103118a	166941-E-7-D MSD	11/01/18 05:34 AM Unknown
322	i1103118a	166941-E-7-D MSD@5	11/01/18 05:38 AM Unknown
323	i1103118a	166941-B-7-A DU	11/01/18 05:42 AM Unknown
324	i1103118a	166941-B-7-A DU@5	11/01/18 05:47 AM Unknown
325	i1103118a	460-166941-E-8-A	11/01/18 05:51 AM Unknown
326	i1103118a	460-166941-E-9-A	11/01/18 05:55 AM Unknown
327	i1103118a	CCV-4954075	11/01/18 05:58 AM QC
328	i1103118a	CCB-4957862	11/01/18 06:02 AM QC
329	i1103118a	CCVL-4970377	11/01/18 06:06 AM QC
330	i1103118a	ICSA-4901305	11/01/18 06:10 AM QC
331	i1103118a	ICSAB-4954073	11/01/18 06:14 AM QC
332	i1103118a	CCV-4954075	11/01/18 06:18 AM QC
333	i1103118a	CCB-4957862	11/01/18 06:22 AM QC

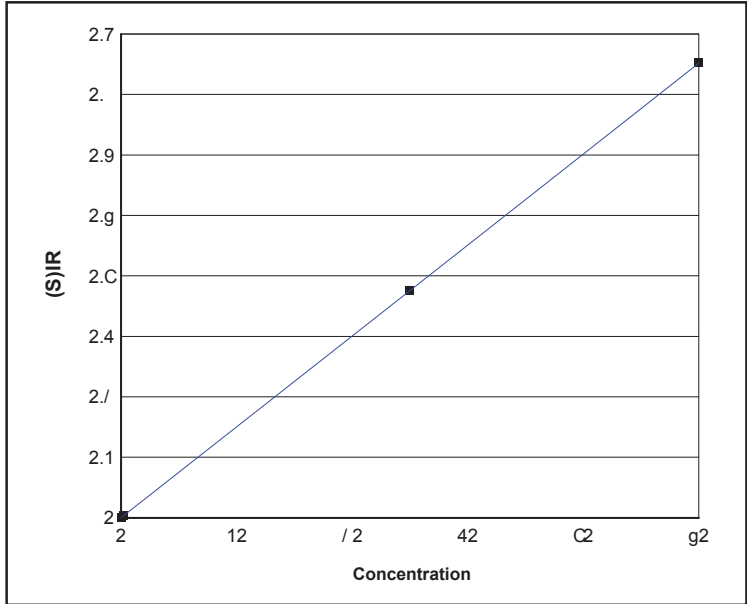
i1103118a

Author: emb
Mub# hes: 11010 21788 :1/ :/ 6A3
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3 ethosñ Nme: oct/ 217upsNesleci 842)



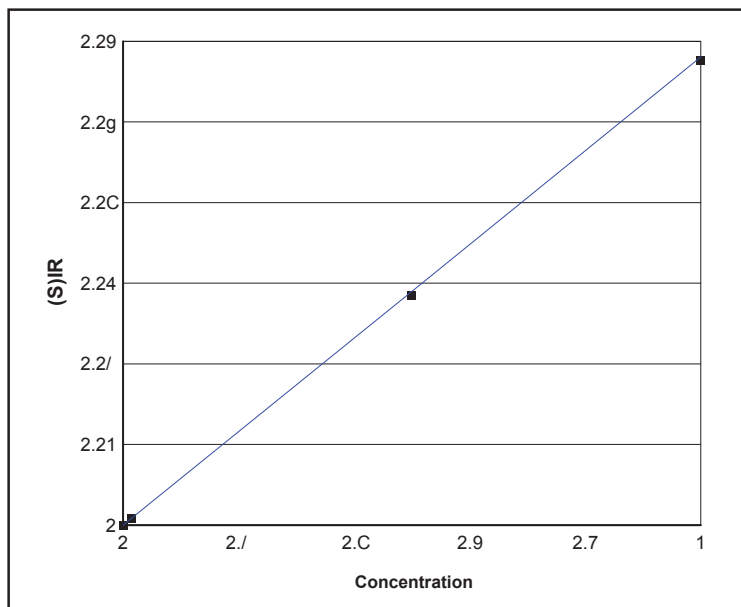
Element Name:		A5
Element Wavelength:		A581/ 7.2978 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:06A3
Type of Fit:		LII eN
Correlation:		0.66677
A0 (Offset):		-2.2222C1g2
A1 (Gain):		0.1g C/
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
da-C6g 79/	0.22222	0.2222224gC/	0.2222224gC/	0.22222	-2.2222C1Qg1	0.2222471/ 1	0
da-C6 24	0.2292222	0.22g 27C	-2.222/ 61g6	-C.7g66	0.2227g 12	0.2222/ 9 9C	0
da-C6/ 967	0.g2222	0.C76/	-2.212 4C	-/ .1C97	0.2 9692	0.222172 g	0
da-C6/ 96	0.2222	0.2112	0.2112/ 9	0.12/ 9	0.1g627	0.2224g177	0



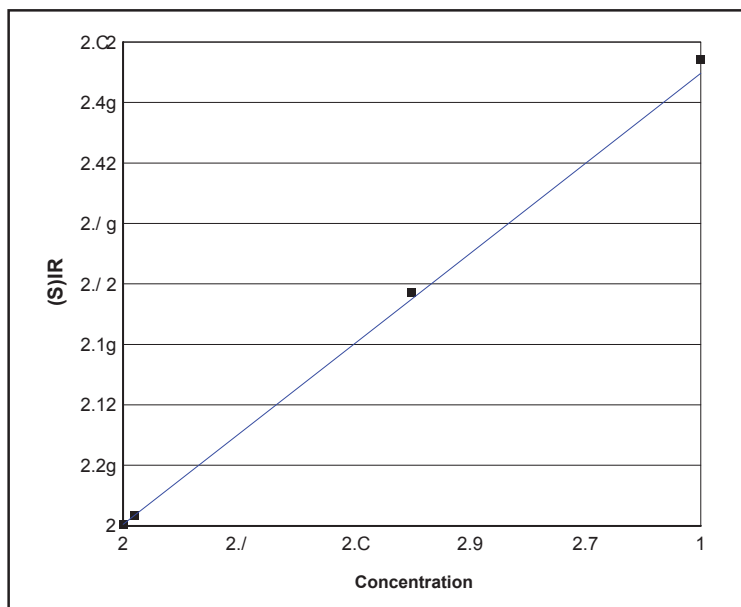
Element Name:		AP
Element Wavelength:		AP427./ 1g8 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:06A3
Type of Fit:		LII eN
Correlation:		0.66669
A0 (Offset):		0.222C 912
A1 (Gain):		0.21g2/ g
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
da-C6g 79/	0.22222	0.222224/ 42	0.222224/ 42	0.22222	0.2222C 9g6	0.222g1 g1	0
da-C6 24	0./ 2222	0.19 79	-2.24/ 1C1	-19.2 2	0.22/ 667/	0.2222C14 g	0
da-C6/ 967	0.g.222	0 C.6/ 9	-2.2 4926	-2./ 600C	0.4 C66	0.22244C 1	0
da-C6/ 96	0g2.222	0g2.129	0.12g g	0./ 11g2	0. g441	0.2216/ 9	0



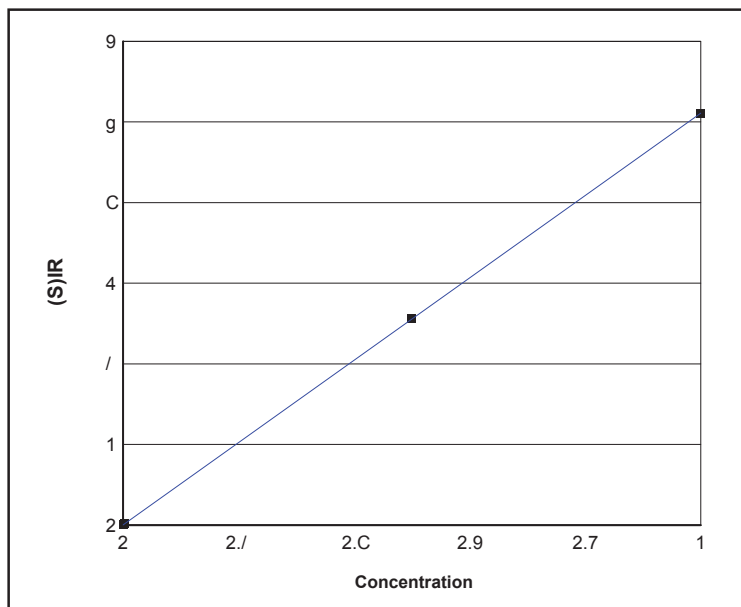
Element Name:		Ai	
Element Wavelength:		Ai 8176.2C/ 8 m	
Concentration Units:		ppm	
Date of Calibration:		120410 217886:14:12A3	
Date of Fit:		120410 217886:g6:C6A3	
Type of Fit:		LII eNr	
Correlation:		0.66666	
A0 (Offset):		0.22222/ 612	
A1 (Gain):		0.2g72C7	
A2 (Curvature):		0.22222	
n (Exponent):		81.2222	
Reslope		QC Normalize	
Slope:		81.2222	Slope factor: 81.2222
Y Int:		0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	2.22222226g6	-2.22222226g6	0.22222	0.22222/ 62g1	0.222219Cg1	81
-C6 24	0.21g222	0.21g1Cg	0.2221Cg2g	0.69967	0.2227 6C9	0.2222g7111	81
-C6/ 967	0.g2222	0.C697	-2.224144/	-2.9/ 99g	0.2/ 7g/ 1	0.2222 7 79	81
-C6/ 96	81.2222	81.2242	0.22/ 67 2	0.1/ 67 2	0.2g g 9	0.2222C 6 4	81



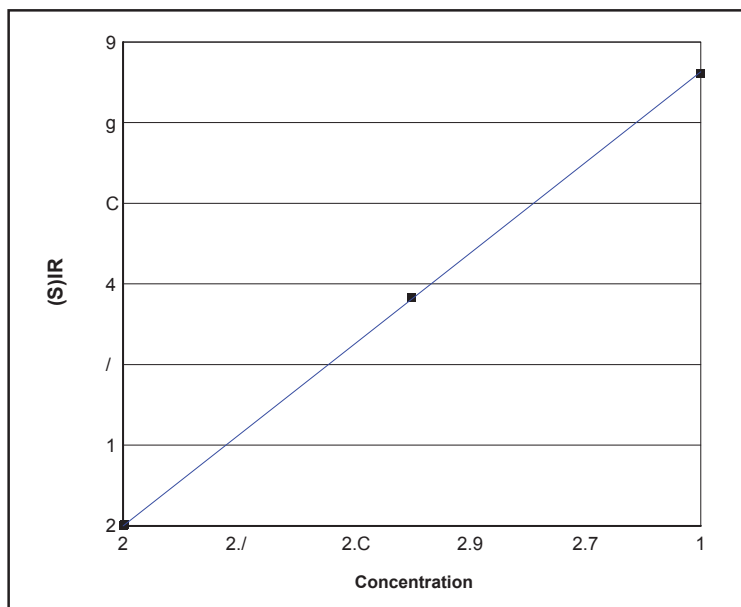
Element Name:		B	
Element Wavelength:		B8 27.6g68 m	
Concentration Units:		ppm	
Date of Calibration:		120410 217886:14:12A3	
Date of Fit:		120410 217886:g6:C6A3	
Type of Fit:		LII eNr	
Correlation:		0.66667	
A0 (Offset):		0.2211/ 6g	
A1 (Gain):		0.4 412	
A2 (Curvature):		0.22222	
n (Exponent):		81.2222	
Reslope		QC Normalize	
Slope:		81.2222	Slope factor: 81.2222
Y Int:		0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	2.22222129g2	0.22222129g2	0.22222	0.2211/ 66	0.2221/ C7	81
-C6 24	0.2/ 2222	0.2176/ 9	-2.2212 Cg	-g.4 / 4	0.227/ 6 9	0.22222911/ /	81
-C6/ 967	0.g2222	0.C66C1	-2.222g7 /	-2.11 Cg	0.16/ 71	0.222C 264	81
-C6/ 96	81.2222	81.2219	0.2219C97	0.19C97	0.47ggg	0.22291462	81



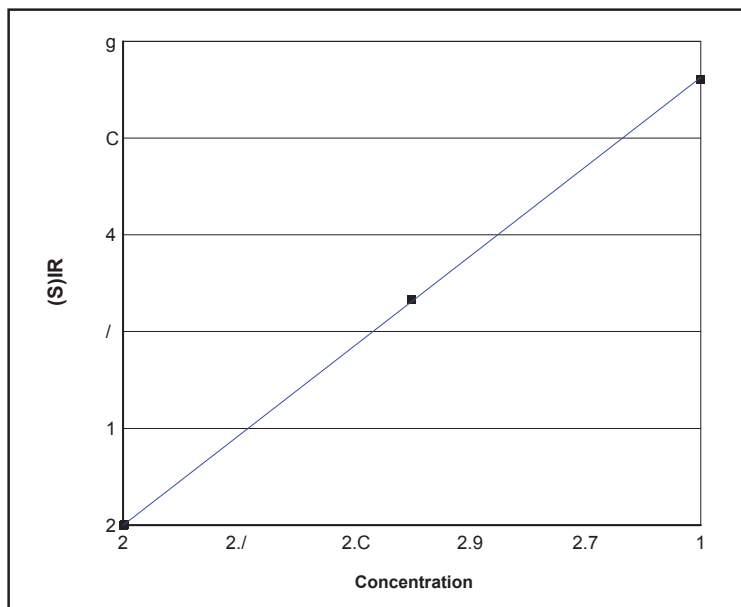
Element Name:		BN	
Element Wavelength:		BN0gg.C248 m	
Concentration Units:		ppm	
Date of Calibration:		120410 217886:14:12A3	
Date of Fit:		120410 217886:g6:C6A3	
Type of Fit:		LII eNr	
Correlation:		81.22222	
A0 (Offset):		82.2209C44	
A1 (Gain):		89.12Cg	
A2 (Curvature):		82.22222	
n (Exponent):		81.2222	
Reslope		QC Normalize	
Slope:		81.2222	Slope factor: 81.2222
Y Int:		82.22222	Offset: 82.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	82.22222	2.2222222/ 4C	82.222222/ 4C	82.22222	82.2209C4g	82.2227/ 941	81
-C6 24	82.22/ 2222	82.2216 C7	-2.2222/ g/ 1C	-1./ 92	82.21C / C	82.222 14g6	81
-C6/ 967	82.g2222	82.g2279	82.2227g7g1	82.1 1 2	8 .g914	82.222 4g 9	81
-C6/ 96	81.2222	82.6661	-2.22274442	-2.274442	89.12C7	82.22C12/	81



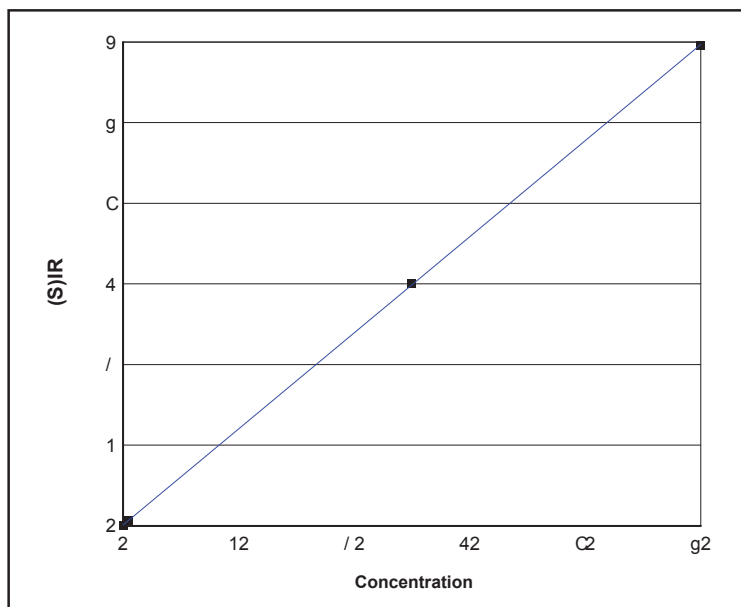
Element Name:		BN	
Element Wavelength:		BN0gg.C248 m	
Concentration Units:		ppm	
Date of Calibration:		120410 217886:14:12A3	
Date of Fit:		120410 217886:g6:C6A3	
Type of Fit:		LII eNr	
Correlation:		82.66666	
A0 (Offset):		82.222744g7	
A1 (Gain):		89.9/ 74	
A2 (Curvature):		82.22222	
n (Exponent):		81.2222	
Reslope		QC Normalize	
Slope:		81.2222	Slope factor: 81.2222
Y Int:		82.22222	Offset: 82.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	82.22222	2.2222222461	-2.2222222461	82.22222	82.22274449	82.2222C7 / /	81
-C6 24	82.22/ 2222	82.22/ 2446	82.2222447g4	81.96/	82.21/ / 71	82.2222g941g	81
-C6/ 967	82.g2222	82.g2/ 9	82.22/ 9 12	82.g4C/ 2	8 .7422	82.212969	81
-C6/ 96	81.2222	82.66 42	-2.22/ 2C7	-2./ 2C7	89.91C2	82.24g991	81



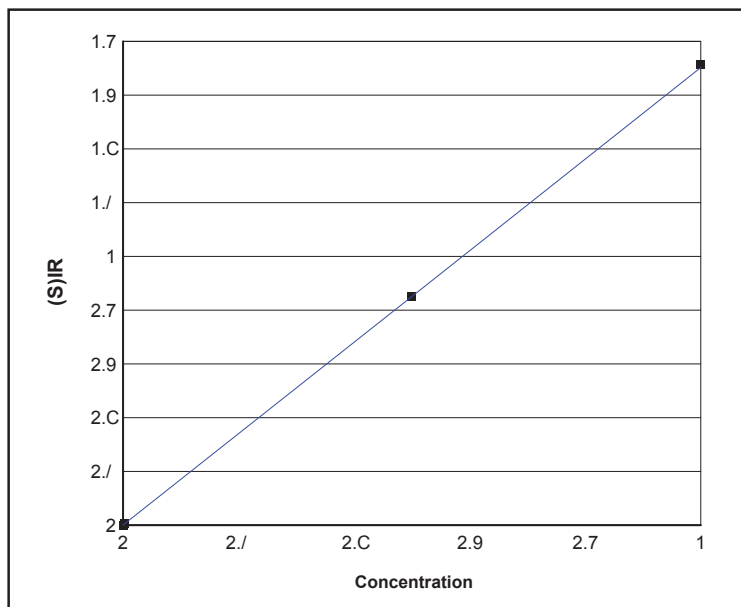
Element Name:	Be		
Element Wavelength:	Be814.20/ 8 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LII eNr		
Correlation:	8.66666		
A0 (Offset):	8.222g67/		
A1 (Gain):	8C.9/ 1		
A2 (Curvature):	8.22222		
n (Exponent):	81.2222		
Reslope		QC Normalize	
Slope:	81.2222	Slope factor:	81.2222
Y Int:	8.22222	Offset:	8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	2.222222212	-2.222222212	8.22222	8.222g67/ /	8.2221/ 646	81
-C6 24	8.22/ 2222	8.22/ 2242	8.22222/ 6g97	8.1C 7C	8.2267g71	8.222/ 177	81
-C6/ 967	8.g2222	8.g2479	8.2247g6C	8. 176	8.441/	8.2294C	81
-C6/ 96	81.2222	8.6691C	-2.22479/ C	-2.479/ C	8C.927/	8.22192/ 1	81



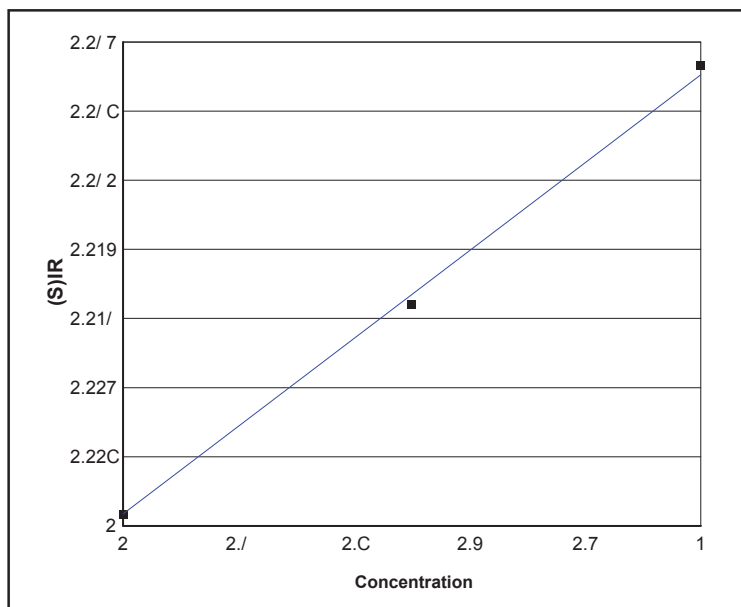
Element Name:	a N		
Element Wavelength:	a N41.6448 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LII eNr		
Correlation:	81.22222		
A0 (Offset):	8.226/ 66		
A1 (Gain):	8.116/ 1		
A2 (Curvature):	8.22222		
n (Exponent):	81.2222		
Reslope		QC Normalize	
Slope:	81.2222	Slope factor:	81.2222
Y Int:	8.22222	Offset:	8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	2.22222g1Cg7	-2.22222g1Cg7	8.22222	8.226/ 661	8.222/ 44/ 4	81
-C6 24	8.g2222	8.g2C1C	8.22C14 g	8.7/ g2	8.296467	8.2222/ 2Cg/	81
-C6/ 967	8 g.222	8 g.12g	8.12C6	8.C167	8.22/ 1	8.21/ 6 1	81
-C6/ 96	8g2.222	8C6.761	-2.12611	-2.1/ 17/ 1	8g.6g97	8.221 6 2	81



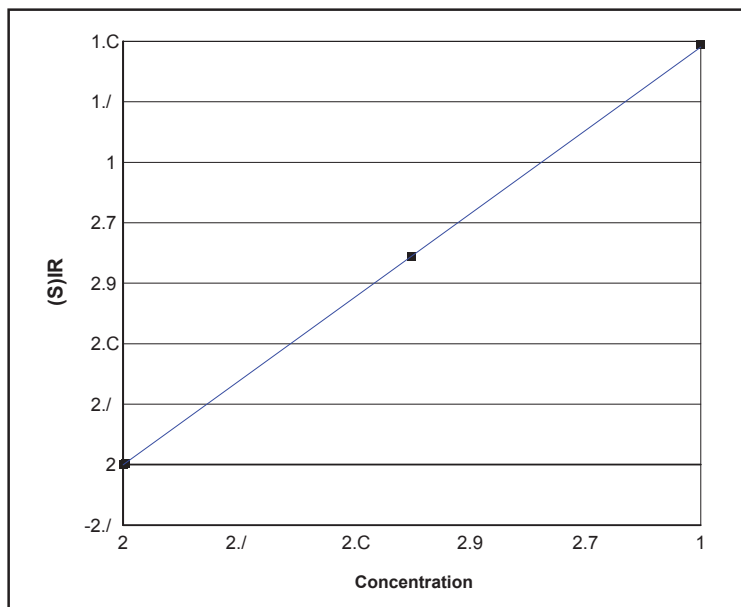
Element Name:	a s		
Element Wavelength:	a s8 / 7.72/ 8 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LI eNr		
Correlation:	0.66666		
A0 (Offset):	0.222g7gC2		
A1 (Gain):	0. 216		
A2 (Curvature):	0.22222		
n (Exponent):	0.2222		
Reslope		QC Normalize	
Slope:	0.2222	Slope factor:	0.2222
Y Int:	0.22222	Offset:	0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
as-C6g 79/	0.22222	2.2222221621	-2.2222221621	0.22222	0.222g7g27	0.222217 C4	0
as-C6 24	0.22/ 2222	0.22/ 16C	0.22216C16	0. 26	0.220C44g	0.22224912C	0
as-C6/ 967	0.g2222	0.C671	-2.22174/ 9	-2.499g/	0.7g/ 2/	0.221gC71	0
as-C6/ 96	0.2222	0.2219	0.22194/ 7	0.194/ 7	0. 1/ g	0.221 C76	0



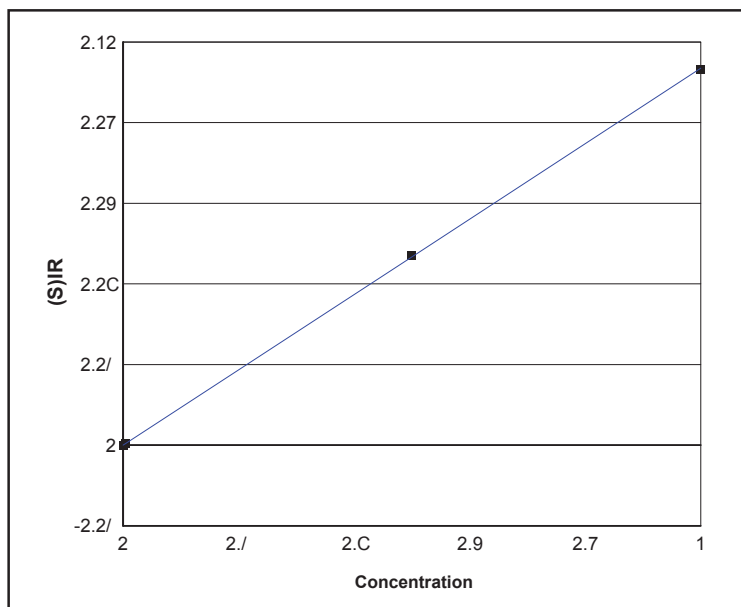
Element Name:	a e		
Element Wavelength:	a e8C2C.2 98 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LII eNr		
Correlation:	0.666g		
A0 (Offset):	0.22297 7		
A1 (Gain):	0.2/ gC1		
A2 (Curvature):	0.2222		
n (Exponent):	0.222		
Reslope		QC Normalize	
Slope:	0.222	Slope factor:	0.222
Y Int:	0.2222	Offset:	0.2222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
as-C6g 79/	0.2222	0.22221267	0.22221267	0.2222	0.2229771	0.222g2g7	0
as-C6/ 967	0.g222	0.C 72	-2.2/ 16g	-C.461	0.21/ 74	0.2224ggg	0
as-C6/ 96	0.222	0.2/ /	0.2/ 16g	0 .16g	0.2/ 99g	0.222g4/	0



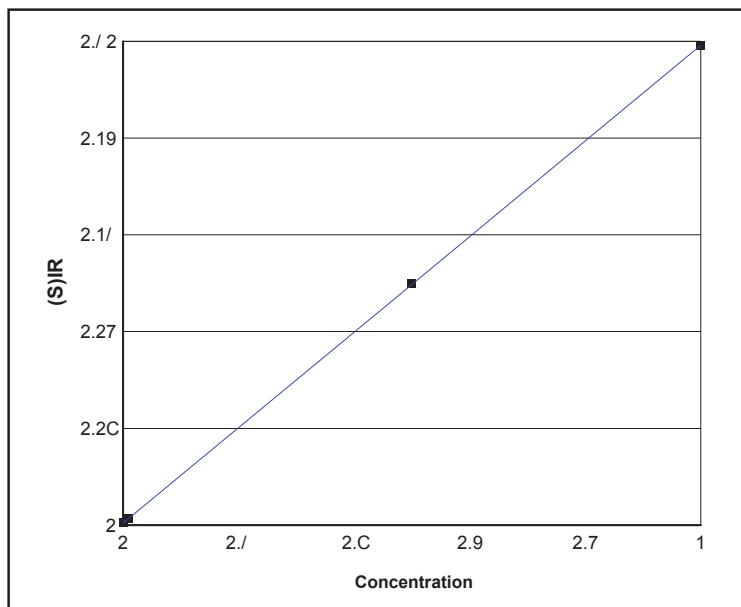
Element Name:		ao
Element Wavelength:		ao8 / 7.9198 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		0.66667
A0 (Offset):		-2.222/ / 77
A1 (Gain):		0.471
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	2.22222/ 494	0.22222/ 494	0.22222	-2.222/ / gg	0.222/ C 96	0
-C6 24	0.22222	0.224 g6	-2.222/ / C1/	-0.9241	0.2206g	0.22210962	0
-C6/ 967	0.2222	0.069 4	-2.224/ 992	-2.9g4/ 2	0.97 C1	0.222/ 6191	0
-C6/ 96	0.2222	0.224g	0.224062/	0.4062/	0.4776	0.22207 26	0



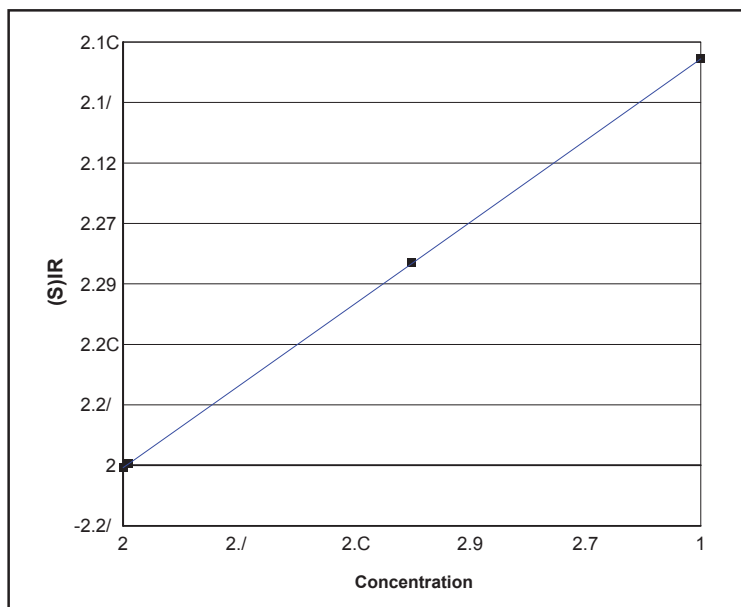
Element Name:		ar
Element Wavelength:		ar8 9 . 198 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		0.66667
A0 (Offset):		-2.222212277
A1 (Gain):		0.264g/
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	2.2222222C7C	-2.2222222C7C	0.22222	-2.22221226/	0.22221/ g2C	0
-C6 24	0.22222	0.22241/	0.22241177	0. 6 2	0.22249969	0.22221/ 79C	0
-C6/ 967	0.2222	0.22044	0.2204441	0.7999/	0.20 194	0.2221/ g7	0
-C6/ 96	0.2222	0.66g9C	-2.22049C4	-2.049C4	0.26411	0.222177/ 9	0



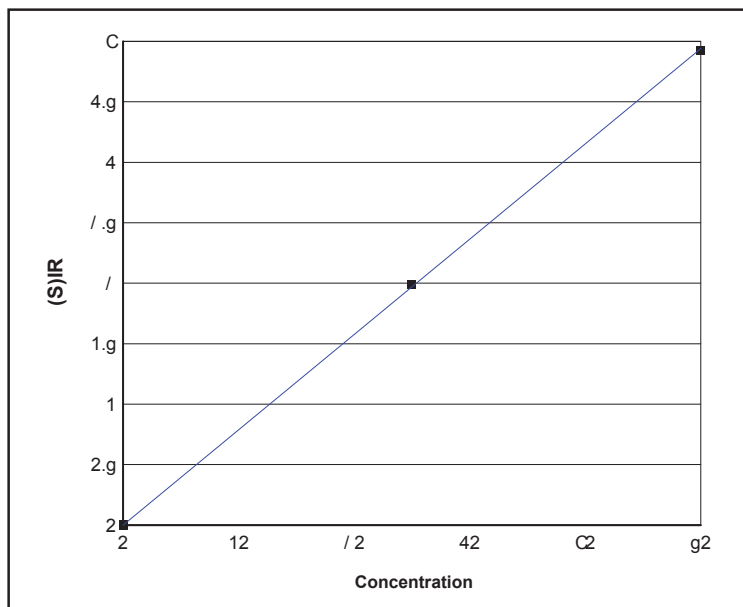
Element Name:	a u		
Element Wavelength:	a u8/ C. gC8 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LII eNr		
Correlation:	0.66666		
A0 (Offset):	0.22277467		
A1 (Gain):	0.16 Cg		
A2 (Curvature):	0.22222		
n (Exponent):	0.2222		
Reslope		QC Normalize	
Slope:	0.2222	Slope factor:	0.2222
Y Int:	0.22222	Offset:	0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.2222224 4/	0.2222224 4/	0.22222	0.22277C29	0.222244147	0
-C6 24	0.212222	0.226910C	-2.22247gg6	-4.7gg6	0.22/ 7/ 4	0.22222 6911	0
-C6/ 967	0.22222	0.2227g	0.2227g4C2	0.1 297	0.266 g	0.222g6624	0
-C6/ 96	0.2222	0.666g4	-2.222C9 71	-2.2C9 71	0.167/ C	0.2221 94	0



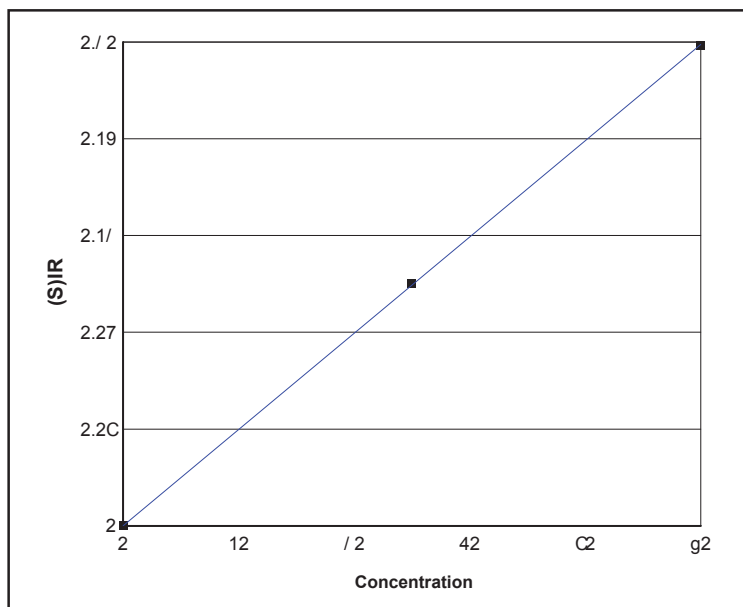
Element Name:	a u		
Element Wavelength:	a u8/ .4698 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LII eNr		
Correlation:	0.22222		
A0 (Offset):	-2.222 9179		
A1 (Gain):	0.14g/ 2		
A2 (Curvature):	0.22222		
n (Exponent):	0.2222		
Reslope		QC Normalize	
Slope:	0.2222	Slope factor:	0.2222
Y Int:	0.22222	Offset:	0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.2222221g4	0.2222221g4	0.22222	-2.222 917C	0.2222292/ 61	0
-C6 24	0.212222	0.2267C27	-2.2221g61	-1.g61	0.222g964C	0.2222Cg267	0
-C6/ 967	0.22222	0.22246	0.2224617/	0.2 749g	0.2996/	0.22214g6g	0
-C6/ 96	0.2222	0.666	-2.222/ 4/ 99	-2.2/ 4/ 99	0.140C7	0.2222216C97	0



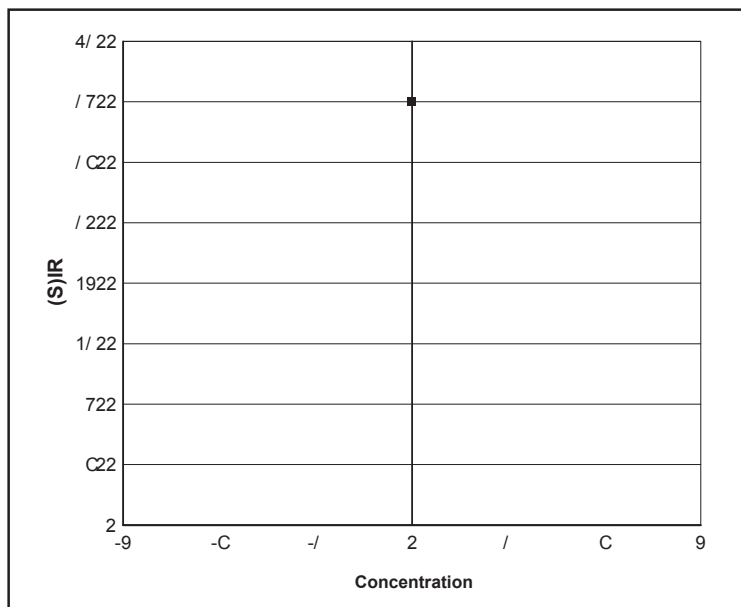
Element Name:		Fe
Element Wavelength:		Fe 666.6 nm
Concentration Units:		ppm
Date of Calibration:		12/01/2017 14:12A3
Date of Fit:		12/01/2017 16:06A3
Type of Fit:		Linear
Correlation:		0.9999
A0 (Offset):		0.222442g6
A1 (Gain):		0.04771
A2 (Curvature):		0.000000
n (Exponent):		1.000000
Reslope		QC Normalize
Slope:	0.04771	Slope factor: 0.04771
Y Int:	0.222442	Offset: 0.222442

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
Fe-666 79/	0.22222	0.22222222/ 06	-2.2222222/ 06	0.22222	0.222442g6	0.222224 C/ 1	0.1
Fe-666 24	0.22222	0.2206 7/	-2.222/ 1729	-2.0491/	0.2207 gCg	0.2222/ 6711	0.1
Fe-666/ 967	0.222	0.221 g/ C4	0.001 C/ 1	0.6 27/	0.221622	0.22240694	0.1
Fe-666/ 96	0.222	0.2206 g7	-2.1 C/ 06	-2.0706	0.2216/ 4	0.2222762g/	0.1



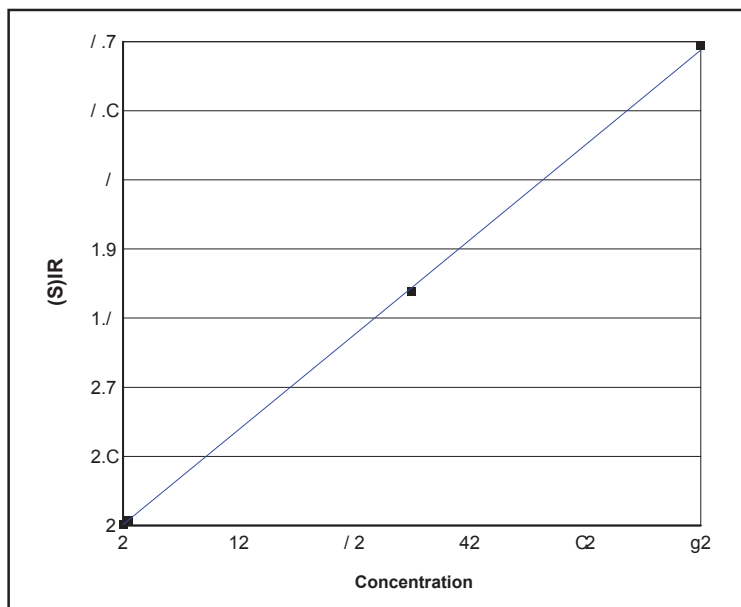
Element Name:		Fe
Element Wavelength:		Fe 666.6 nm
Concentration Units:		ppm
Date of Calibration:		12/01/2017 14:12A3
Date of Fit:		12/01/2017 16:06A3
Type of Fit:		Linear
Correlation:		0.9999
A0 (Offset):		0.2222 / 177
A1 (Gain):		0.04771 C
A2 (Curvature):		0.000000
n (Exponent):		1.000000
Reslope		QC Normalize
Slope:	0.04771	Slope factor: 0.04771
Y Int:	0.222222	Offset: 0.222222

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
Fe-666 79/	0.22222	0.22222g914/	0.22222g914/	0.22222	0.2222 / C11	0.22222C/ 6 2	0.1
Fe-666 24	0.22222	-2.22944 g	-2.2g9447	-11/ .97	0.222209671	0.222246 64	0.1
Fe-666/ 967	0.222	0.221g2	0.00106g	0.67/ 6	0.221212	0.2229/ 6/ 7	0.1
Fe-666/ 96	0.222	0.22062	-2.264/ 4g	-2.179C	0.22167g	0.2222C1906	0.1



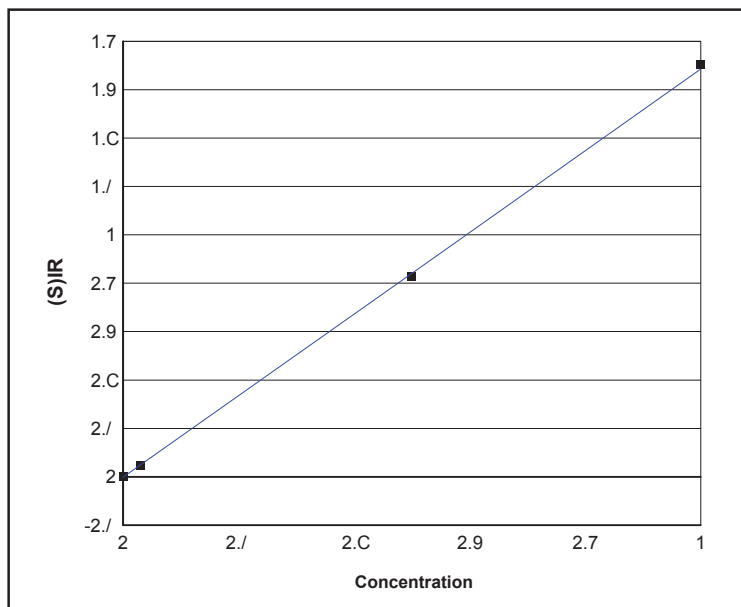
Element Name:		d
Element Wavelength:		d 8 42.9298 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:21:ggA3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		8.2222
A0 (Offset):		8.2222
A1 (Gain):		8.2222
A2 (Curvature):		8.2222
n (Exponent):		81.222
Reslope		QC Normalize
Slope:	81.222	Slope factor: 81.222
Y Int:	8.2222	Offset: 8.2222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
d d-C6g 79/	8.2222			8.2222	8 ,72/	81.4C4	81



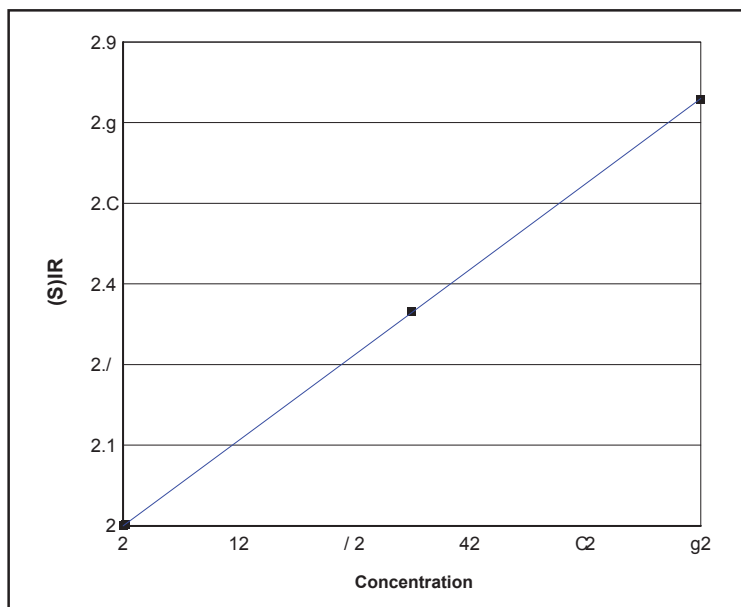
Element Name:		K
Element Wavelength:		K8 99.C628 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		8.66662
A0 (Offset):		8.22g9C77
A1 (Gain):		8.2gC6/ 7
A2 (Curvature):		8.22222
n (Exponent):		81.2222
Reslope		QC Normalize
Slope:	81.2222	Slope factor: 81.2222
Y Int:	8.22222	Offset: 8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
d d-C6g 79/	8.22222	8.2222gg44/	8.2222gg44/	8.22222	8.22g9g17	8.221/ gg4	81
d -C6 24	8.g2222	8.CC71g	-2.2g17gg	-12.4 1	8.242/ 9C	8.22299679	81
d -C6/ 967	8 g.222	8 C.922	-2.466g7	-1.g674	81.4g96	8.2216g24	81
d -C6/ 96	8g2.222	8g2.Cg1	8.Cg1CC	8.62/ 77	8 . 97	8.22122g6	81



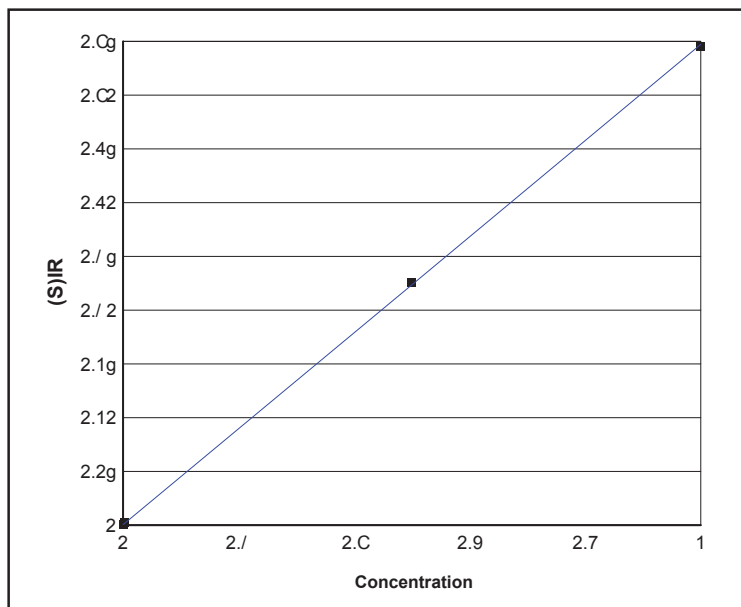
Element Name:		LI
Element Wavelength:		LI 2. 7C8 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		8.66674
A0 (Offset):		-2.22126g9
A1 (Gain):		81.9794
A2 (Curvature):		8.22222
n (Exponent):		81.2222
Reslope		QC Normalize
Slope:	81.2222	Slope factor: 81.2222
Y Int:	8.22222	Offset: 8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	2.22222/ 6667	8.22222/ 6667	8.22222	-2.22126g	8.222g4g/ /	81
-C6 24	8.242222	8.2/ 1g6	-2.22/ 7C2	-6.0961	8.20C 2/	8.22141g	81
-C6/ 967	8.g2222	8.06179	-2.2271C/ /	-1.9/ 7C	8.7/ 741	8.2229/ C41	81
-C6/ 96	81.2222	81.2112	8.212674	81.2674	81. 24	8.22g/ 7 2	81



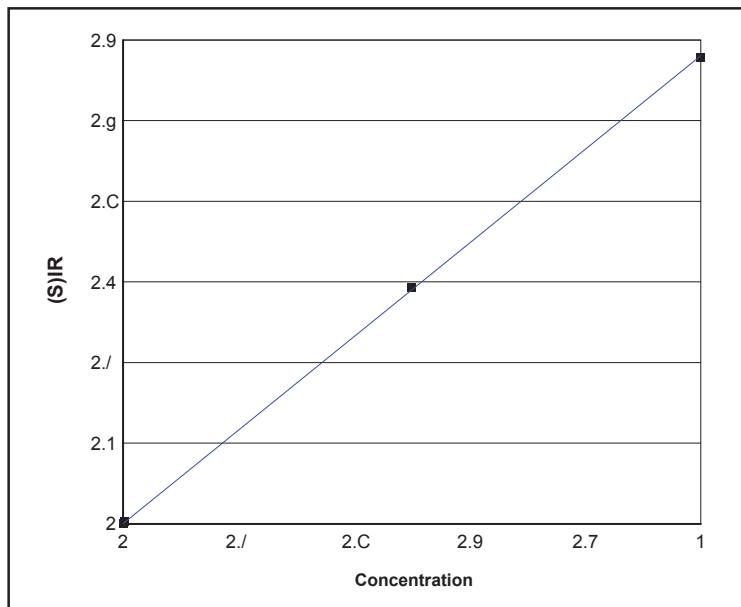
Element Name:		3 5
Element Wavelength:		3 58 6.2 68 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		81.22222
A0 (Offset):		8.222222C6C2
A1 (Gain):		8.212g69
A2 (Curvature):		8.22222
n (Exponent):		81.2222
Reslope		QC Normalize
Slope:	81.2222	Slope factor: 81.2222
Y Int:	8.22222	Offset: 8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	2.2222229g77	8.2222229g77	8.22222	8.222222g212	8.222224gg7/	81
-C6 24	8./ 2222	8.16622	-2.22266gC4	-2.06 /	8.22/ 1262	8.22222 27gg	81
-C6/ 967	8 g.222	8 g.274	8.2741g6	8.44/ 9C	8./ 9g g	8.22219672	81
-C6/ 96	8g2.222	8C6.617	-2.27/ 194	-2.19C44	8.g/ 77	8.2227C7C2	81



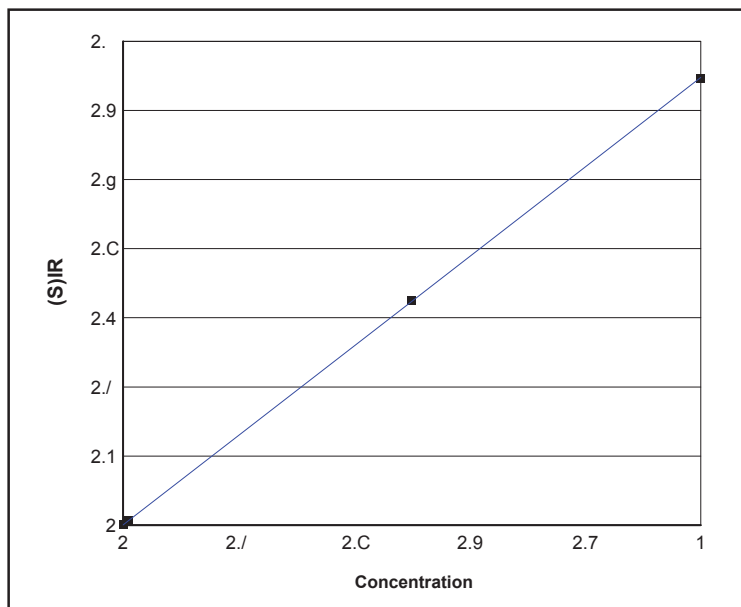
Element Name:		3 l
Element Wavelength:		3 l 8 g .9128 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:06A3
Type of Fit:		LII eNr
Correlation:		8.6666
A0 (Offset):		8.222C / g
A1 (Gain):		8.009 2
A2 (Curvature):		8.22222
n (Exponent):		8l .2222
Reslope		QC Normalize
Slope:	8l .2222	Slope factor: 8l .2222
Y Int:	8.22222	Offset: 8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	2.2222224172	-2.2222224172	8.22222	8.222C / 92	8.22242472	8l
-C6 24	8.2242222	8.22442	8.22242 9	8l2. / g9	8.2216g24	8.2221gg47	8l
-C6/ 967	8.g2222	8.g24 C	8.224 C11	8. C7 / /	8. / / g06	8.222424g7	8l
-C6/ 96	8l .2222	8.66g6g	-2.22C2C77	-2. C2C77	8.00g4	8.2226g/ 0C	8l



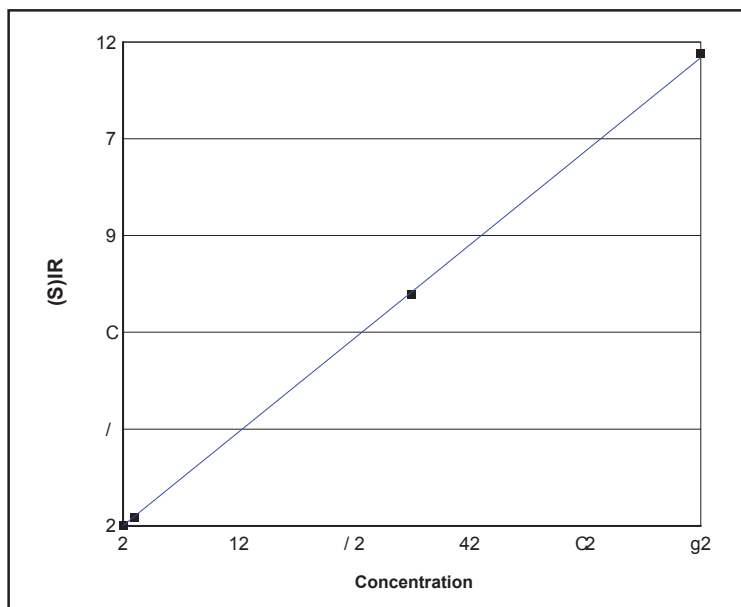
Element Name:		3 l
Element Wavelength:		3 l 8 g .9128 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:06A3
Type of Fit:		LII eNr
Correlation:		8.66667
A0 (Offset):		8.222Cg7g
A1 (Gain):		8.g72/ 2
A2 (Curvature):		8.22222
n (Exponent):		8l .2222
Reslope		QC Normalize
Slope:	8l .2222	Slope factor: 8l .2222
Y Int:	8.22222	Offset: 8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	2.2222222g91	-2.2222222g91	8.22222	8.222Cg7gC	8.22221g924	8l
-C6 24	8.2242222	8.2242C42	8.2222C/ 69/	8l.C4/ 1	8.22 / / / g/	8.22222g/ 49g	8l
-C6/ 967	8.g2222	8.g200/	8.220C191	8.774/ /	8. / 64/ 7	8.2224Cg62	8l
-C6/ 96	8l .2222	8.66ggC	-2.220Cg62	-2.00g62	8.g 7C2	8.222 46C	8l



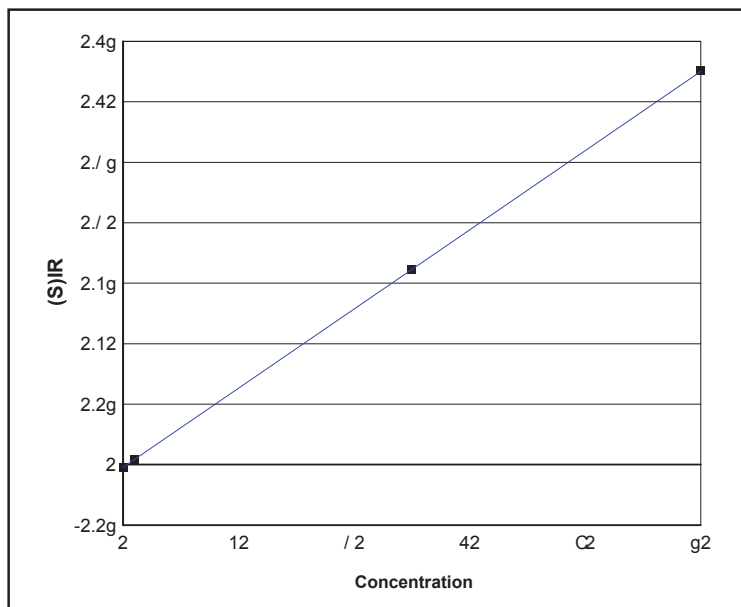
Element Name:		3 o
Element Wavelength:		3 o8 2/ .2428 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		0.66667
A0 (Offset):		0.222gC661
A1 (Gain):		0.9C 16
A2 (Curvature):		0.22222
n (Exponent):		81.2222
Reslope		QC Normalize
Slope:	81.2222	Slope factor: 81.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.22222g6 1	0.22222g6 1	0.22222	0.222gg242	0.22229/ C C	81
-C6 24	0.212222	0.2264 4	-2.2229/ / 99	-9. / / 99	0.2299176	0.222274146	81
-C6/ 967	0.g2222	0.g216C	0.22164 6	0.47 g6	0.4/ gC2	0.2212/ 2g	81
-C6/ 96	81.2222	0.66797	-2.22141g4	-2.141g4	0.9C976	0.2229647	81



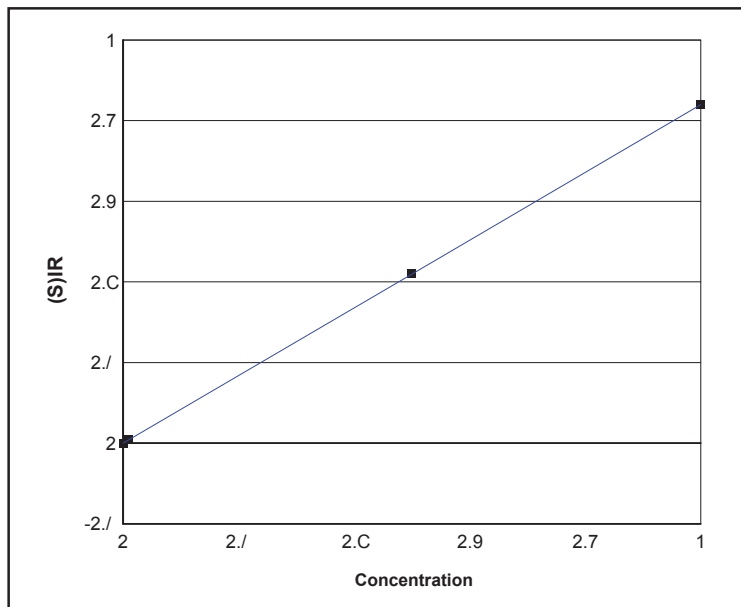
Element Name:		n N
Element Wavelength:		n N76.g6/ 8 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		0.66662
A0 (Offset):		0.2247 14
A1 (Gain):		0.164C6
A2 (Curvature):		0.22222
n (Exponent):		81.2222
Reslope		QC Normalize
Slope:	81.2222	Slope factor: 81.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.22226/ 997	0.22226/ 997	0.22222	0.224776/	0.2229296/	81
-C6 24	81.2222	0.61/ 41	-2.27 96C	-7. 96C	0.172C2	0.222gC 1	81
-C6/ 967	8 g.222	8 C.99C	-2.44946	-1.4Cg9	8C. 91	0.21/ 929	81
-C6/ 96	8g2.222	8g2.C/ C	0.C/ C27	0.7C71	8. 929	0.22ggC2/	81



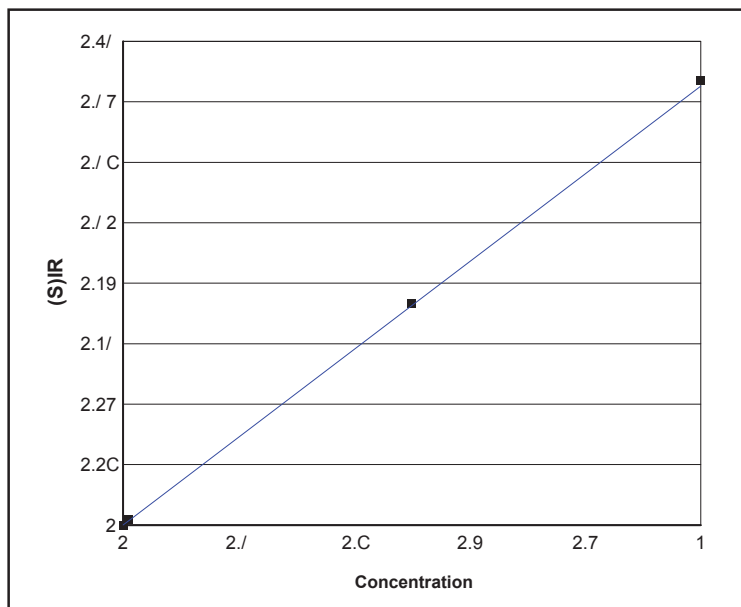
Element Name:		nN	
Element Wavelength:		nN 17.4/ 98 m	
Concentration Units:		ppm	
Date of Calibration:		12/01/2017 14:12A3	
Date of Fit:		12/01/2017 16:06A3	
Type of Fit:		LII eN	
Correlation:		0.66667	
A0 (Offset):		-2.22 / 10C	
A1 (Gain):		0.229gC 7	
A2 (Curvature):		0.22222	
n (Exponent):		0.2222	
Reslope		QC Normalize	
Slope:		0.2222	Slope factor: 0.2222
Y Int:		0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
dS-C6g 79/	0.22222	0.2222g/ 9 C	0.2222g/ 9 C	0.22222	-2.22 / 10C	0.222944C2	0
d-C6 24	0.2222	0.6C / 2	-2.2g/ 66	-g/ 66	0.22467	0.2226/ 22/	0
d-C6/ 967	0.222	0.6g4	-2.209g94	-2.179/ g	0.19117	0.2221799C	0
d-C6/ 96	0.222	0.266	0.266491	0.167 /	0.4/ g74	0.2221612C	0



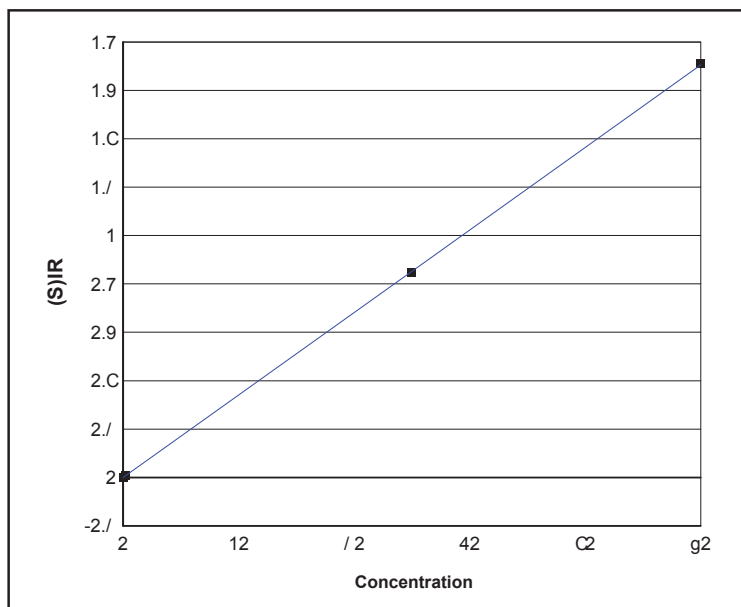
Element Name:		nI	
Element Wavelength:		nI 41.92C8 m	
Concentration Units:		ppm	
Date of Calibration:		12/01/2017 14:12A3	
Date of Fit:		12/01/2017 16:06A3	
Type of Fit:		LII eN	
Correlation:		0.22222	
A0 (Offset):		-2.22224/ / 19	
A1 (Gain):		0.746g	
A2 (Curvature):		0.22222	
n (Exponent):		0.2222	
Reslope		QC Normalize	
Slope:		0.2222	Slope factor: 0.2222
Y Int:		0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
dS-C6g 79/	0.22222	2.2222222249	-2.2222222249	0.22222	-2.22224/ / 16	0.222264112	0
d-C6 24	0.212222	0.212224	0.2222244622	0.244622	0.22749 7	0.2222/ 7/ g	0
d-C6/ 967	0.2222	0.222/	0.2222/ / 20C	0.2200277	0.2/ 2C	0.222/ 0g09	0
d-C6/ 96	0.2222	0.6666	-2.2222/ gC 6	-2.22/ gC 6	0.7C261	0.2224791/	0



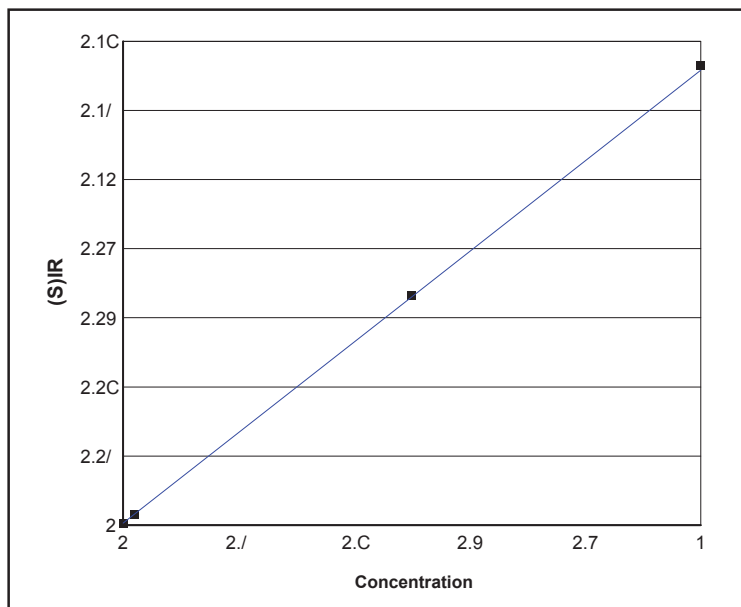
Element Name:		Mb
Element Wavelength:		Mb8 / 2.4g48 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		0.6666g
A0 (Offset):		0.22214492
A1 (Gain):		0. / 624/
A2 (Curvature):		0.22222
n (Exponent):		81.2222
Reslope		QC Normalize
Slope:	81.2222	Slope factor: 81.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
db-C6g 79/	0.22222	2.222221/ g6	-2.222221/ g6	0.22222	0.222144/ 4	0.222161 6	81
db-C6 24	0.212222	0.211/ 79	0.221/ 7g	81/ .7g	0.224009C	0.222266g 7	81
db-C6/ 967	0.g2222	0.C6797	-2.2214199	-2./ 9441	0.109 g	0.22217 24	81
db-C6/ 96	81.2222	81.2222	0.22224121g	0.224121g	0. / 6C1C	0.2224/ 6/ g	81



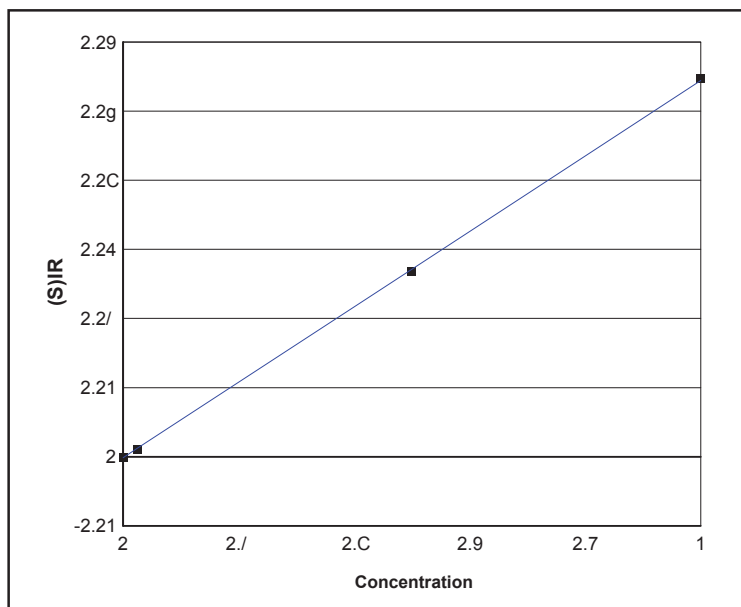
Element Name:		S
Element Wavelength:		S817/ .24C8 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		81.2222
A0 (Offset):		-2.2222Cg79
A1 (Gain):		0.24C11
A2 (Curvature):		0.2222
n (Exponent):		81.222
Reslope		QC Normalize
Slope:	81.222	Slope factor: 81.222
Y Int:	0.2222	Offset: 0.2222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
db-C6g 79/	0.2222	0.222211 2	0.222211 2	0.2222	-2.2222CgC	0.2222/ g4	81
db-C6 24	0. / 222	0.1776	-2.2112	-g.g49	0.229467	0.2222C7C/	81
db-C6/ 967	8 g.22	8 C.74	-2.19 /	-2.997	0.7C 2	0.2211/ g	81
db-C6/ 96	8g2.22	8g2.17	0.1 74	0.4g9g	81. 11	0.22144/	81



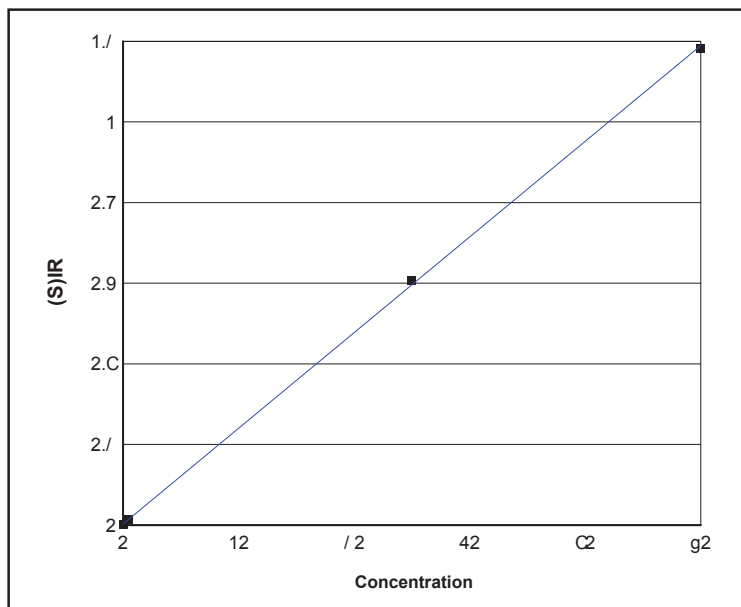
Element Name:		Sb
Element Wavelength:		Sb8 29.7448 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:06A3
Type of Fit:		LII eNr
Correlation:		0.66664
A0 (Offset):		0.222g7164
A1 (Gain):		0.14124
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.22222162Cg	0.22222162Cg	0.22222	0.222g7/ 17	0.222291/ 00	0
-C6 24	0.2/ 2222	0.217261	-2.2216261	-6.gCg	0.22/ 6g92	0.222211g00	0
-C6/ 967	0.g2222	0.06744	-2.22199 2	-2.444C2	0.2994/	0.2221/ g14	0
-C6/ 96	0.2222	0.2249	0.224g9g7	0.4g9g7	0.14/ 67	0.222911 /	0



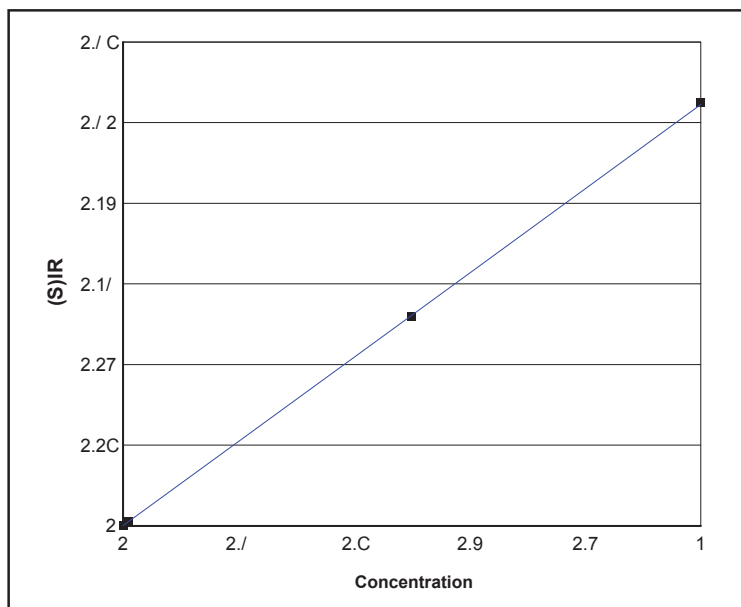
Element Name:		Se
Element Wavelength:		Se8169.2628 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:06A3
Type of Fit:		LII eNr
Correlation:		0.666 4
A0 (Offset):		-2.2221/ 26g
A1 (Gain):		0.2g0gg4
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.22222C17g	0.22222C17g	0.22222	-2.2221/ 2 /	0.2221/ C14	0
-C6 24	0.2/ g222	0.2/ 27/ C	-2.22C1 g	-19. 24	0.2212109	0.22222/ / g7	0
-C6/ 967	0.g2222	0.06gC/	-2.22Cg7/ /	-2.619C4	0.2/ 97C2	0.2221C772	0
-C6/ 96	0.2222	0.2277	0.227 994	0.7 994	0.2gC 6	0.22227 06g	0



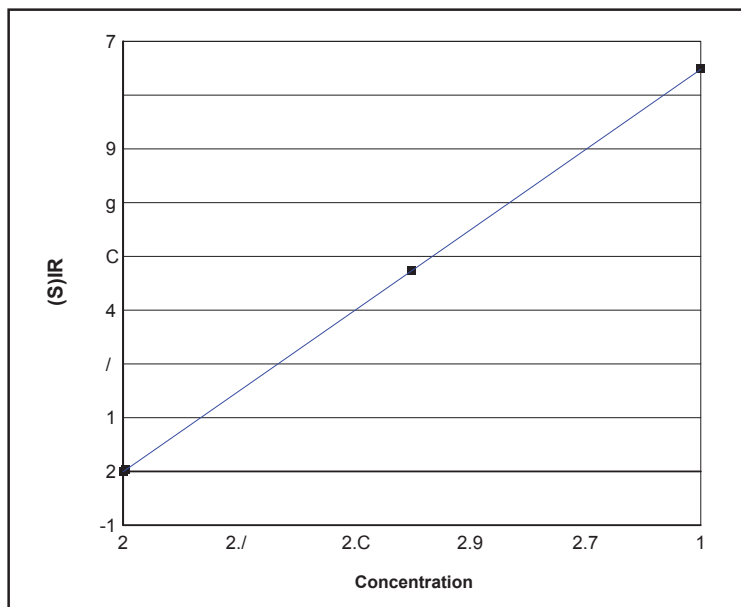
Element Name:		Si
Element Wavelength:		Si 77.1g78 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		0.66662
A0 (Offset):		0.22/ 9gC9
A1 (Gain):		0.2/ 4 C4
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.2222C2727	0.2222C2727	0.22222	0.22/ 9ggg	0.222g2661	0
-C6 24	0.22222	0.2CgC/ g	-2.2Cg gC	-6.1g2	0.2140C9	0.222496 9	0
-C6/ 967	0.2222	0.2 g.006	0.00776	0.1. 6g9	0.92 C9	0.2247/ 9	0
-C6/ 96	0.2222	0.06.g6	-2.02419	-2.72941	0.171C	0.224/ 2 /	0



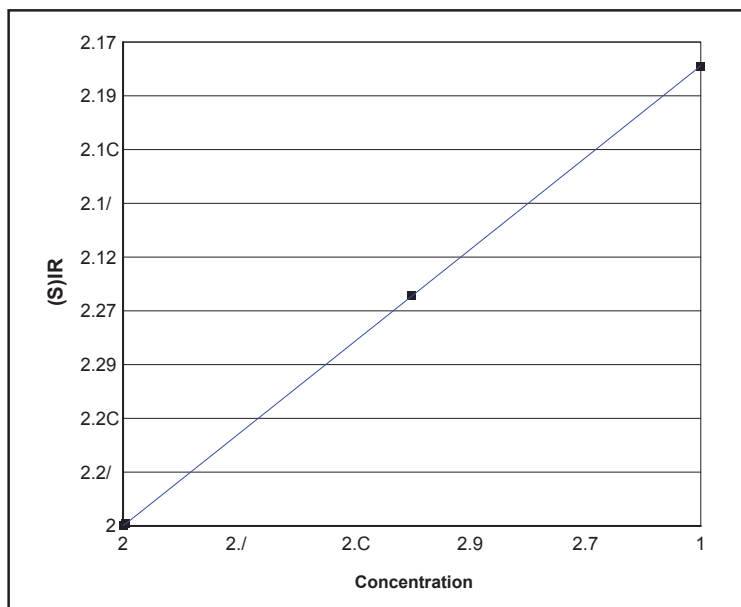
Element Name:		Si
Element Wavelength:		Si 76.6768 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		0.6666g
A0 (Offset):		0.22210C1
A1 (Gain):		0.1 277/
A2 (Curvature):		0.22222
n (Exponent):		0.2222
Reslope		QC Normalize
Slope:	0.2222	Slope factor: 0.2222
Y Int:	0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.222222772/	0.222222772/	0.22222	0.22210C4g	0.2221C g9	0
-C6 24	0.212222	0.2261g 4	-2.2227C/ 2	-7.C/ 2	0.22/ 2g9C	0.22229g6g6	0
-C6/ 967	0.22222	0.06gC2	-2.22Cg69g	-2.61642	0.124g6	0.222/ C2	0
-C6/ 96	0.2222	0.22gC	0.22gC46/	0.2gC46/	0.1 1212	0.222191 /	0



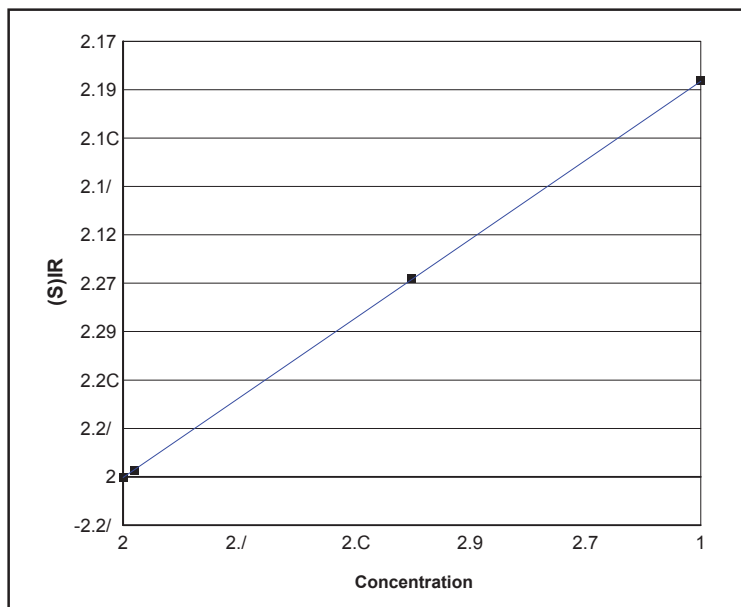
Element Name:	Sr		
Element Wavelength:	Sr82 . 18 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LII eN		
Correlation:	81.22222		
A0 (Offset):	-2.2246191		
A1 (Gain):	8 .C717		
A2 (Curvature):	8.22222		
n (Exponent):	81.2222		
Reslope		QC Normalize	
Slope:	81.2222	Slope factor:	81.2222
Y Int:	8.22222	Offset:	8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	8.2222221/ C4	8.2222221/ C4	8.22222	-2.22461g/	8.2221/ 722	81
-C6 24	8.22g2222	8.22C7 C7	-2.2221/ g19	-/ .g244	8.24/ 964	8.22241 72	81
-C6/ 967	8.g2222	8.g2229	8.2222ggC17	8.21127C	8. CC	8.2226771	81
-C6/ 96	81.2222	81.2221	8.2222966 C	8.22966 C	8 .C6/ 1	8.229 7/ 6	81



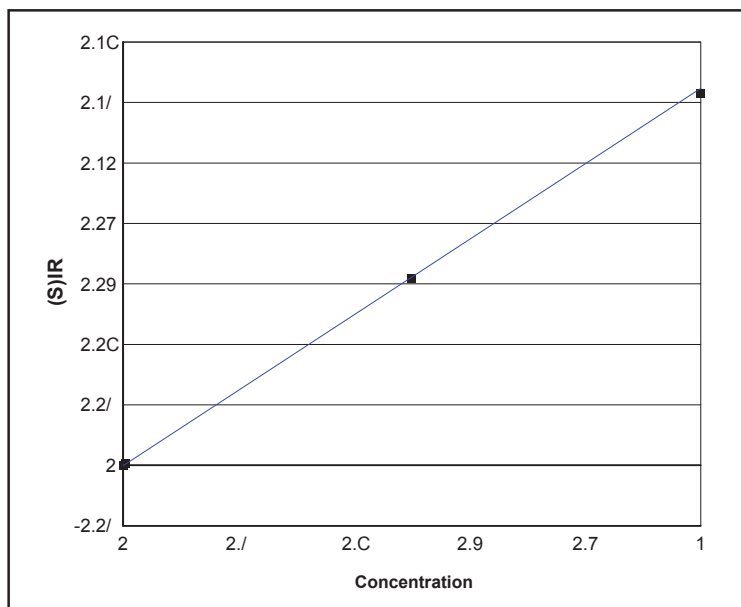
Element Name:	TI		
Element Wavelength:	TI84C.62C8 m		
Concentration Units:	ppm		
Date of Calibration:	120410 217886:14:12A3		
Date of Fit:	120410 217886:g6:C6A3		
Type of Fit:	LII eN		
Correlation:	8.6666		
A0 (Offset):	8.2222 7969		
A1 (Gain):	8.1 126		
A2 (Curvature):	8.22222		
n (Exponent):	81.2222		
Reslope		QC Normalize	
Slope:	81.2222	Slope factor:	81.2222
Y Int:	8.22222	Offset:	8.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	8.22222	8.222222g6 4	8.222222g6 4	8.22222	8.2222 7 67	8.22222g2/ /	81
-C6 24	8.22g2222	8.22C4642	-2.22292967	-1/ .1C2	8.22274241	8.2222162/ /	81
-C6/ 967	8.g2222	8.g214/	8.2214/ 1C	8/ .9C/ 6	8.27g7g1	8.2221 / C4	81
-C6/ 96	81.2222	8.666/ 6	-2.222 10C9	-2.2 10C9	8.1 12g	8.2224Cg4g	81



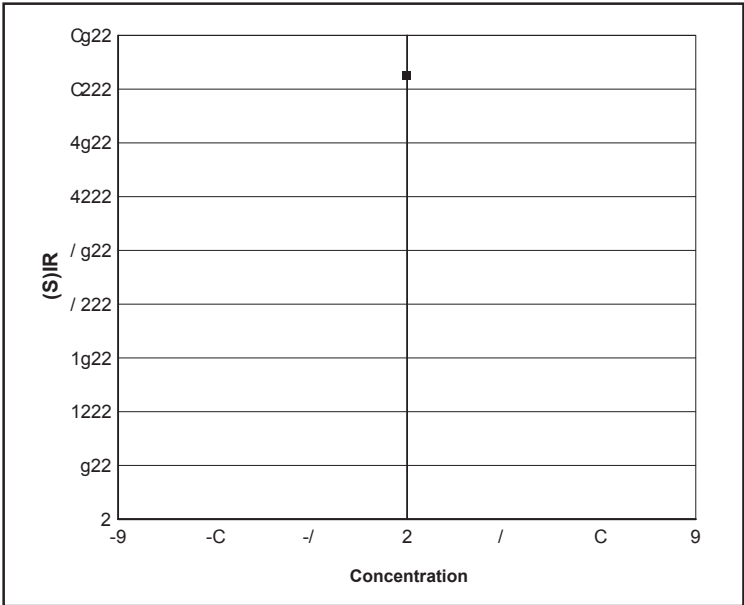
Element Name:		TP	
Element Wavelength:		162.798 m	
Concentration Units:		ppm	
Date of Calibration:		12/01/2016 14:12A3	
Date of Fit:		12/01/2016 16:06A3	
Type of Fit:		LII eN	
Correlation:		0.66667	
A0 (Offset):		-2.222/ 6249	
A1 (Gain):		0.19471	
A2 (Curvature):		0.22222	
n (Exponent):		0.2222	
Reslope		QC Normalize	
Slope:		0.2222	Slope factor: 0.2222
Y Int:		0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.2222212/	0.2222212/	0.22222	-2.222/ 6216	0.22216719	0
-C6 24	0.2/ 2222	0.217616	-2.2212712	-0.206	0.22/ 726g	0.2222/ C127	0
-C6/ 967	0.2222	0.21g7	0.221g7Cg	0.41962	0.271699	0.222gg 19	0
-C6/ 96	0.2222	0.666g2	-2.222g2Cg/	-2.2g2Cg/	0.1949/	0.2229g1/ 7	0



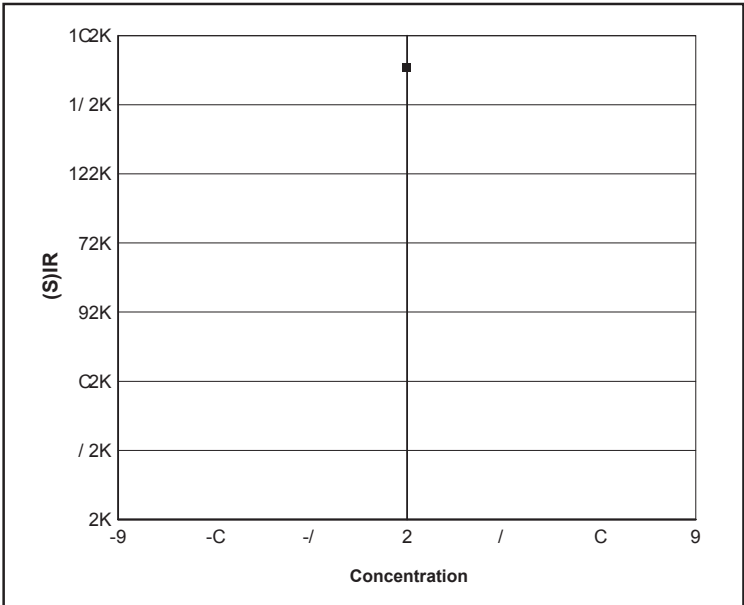
Element Name:		V	
Element Wavelength:		V8 6/ .C2/ 8 m	
Concentration Units:		ppm	
Date of Calibration:		12/01/2016 14:12A3	
Date of Fit:		12/01/2016 16:06A3	
Type of Fit:		LII eN	
Correlation:		0.66666	
A0 (Offset):		-2.2222g1 g9	
A1 (Gain):		0.1/ C 6	
A2 (Curvature):		0.22222	
n (Exponent):		0.2222	
Reslope		QC Normalize	
Slope:		0.2222	Slope factor: 0.2222
Y Int:		0.22222	Offset: 0.22222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	0.22222	0.222221g9g	0.222221g9g	0.22222	-2.2222g1 49	0.2222216g 1	0
-C6 24	0.22g2222	0.22C7411	-2.221976/	-4.4 7g	0.222g4C72	0.222217g71	0
-C6/ 967	0.2222	0.22/ 41	0.22/ 4119	0.09/ 44	0.2917 4	0.2222117/ 6	0
-C6/ 96	0.2222	0.66 7g	-2.22/ 1Cg1	-2/ 1Cg1	0.1/ / 6g	0.2221C/ 29	0



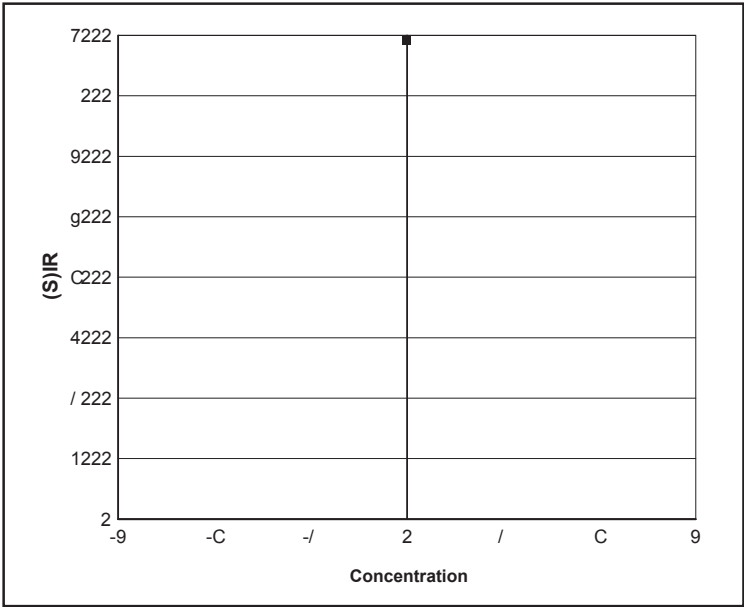
Element Name:		Y
Element Wavelength:		Y8 / C.4298 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:21:ggA3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		82.2222
A0 (Offset):		82.2222
A1 (Gain):		82.2222
A2 (Curvature):		82.2222
n (Exponent):		81.222
Reslope		QC Normalize
Slope:	81.222	Slope factor: 81.222
Y Int:	82.2222	Offset: 82.2222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
88-C6g 79/	82.2222			82.2222	82,1/ g	81.C1C	81



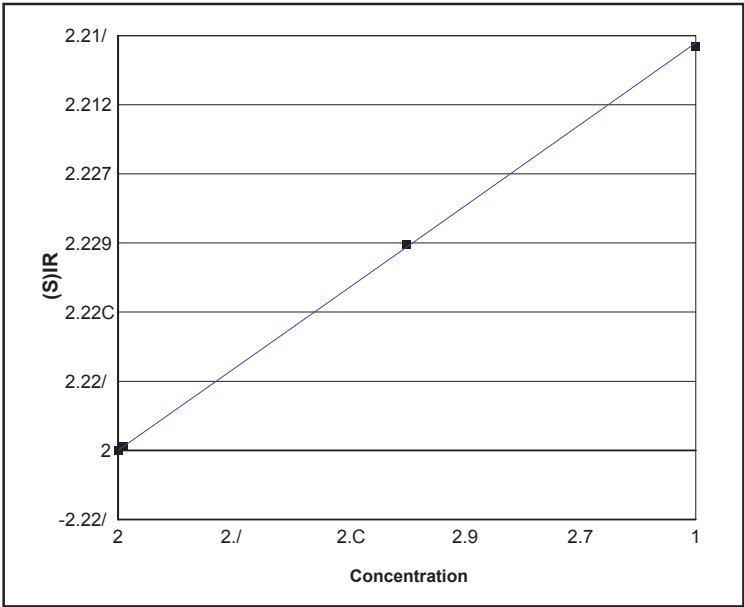
Element Name:		Y
Element Wavelength:		Y8492.2 48 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:21:ggA3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		82.2222
A0 (Offset):		82.2222
A1 (Gain):		82.2222
A2 (Curvature):		82.2222
n (Exponent):		81.222
Reslope		QC Normalize
Slope:	81.222	Slope factor: 81.222
Y Int:	82.2222	Offset: 82.2222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
88-C6g 79/	82.2222			82.2222	8142,922	8196.7	81



Element Name:		Y
Element Wavelength:		Y84 .C448 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:21:ggA3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		82.2222
A0 (Offset):		82.2222
A1 (Gain):		82.2222
A2 (Curvature):		82.2222
n (Exponent):		81.222
Reslope		QC Normalize
Slope:		81.222
Y Int:		82.2222
Slope factor:		81.222
Offset:		82.2222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	82.2222			82.2222	8 ,61	817.14	81



Element Name:		ZI
Element Wavelength:		ZI 8 29./ 228 m
Concentration Units:		ppm
Date of Calibration:		120410 217886:14:12A3
Date of Fit:		120410 217886:g6:C6A3
Type of Fit:		LII eNr
Correlation:		82.6666/
A0 (Offset):		-2.222221/ 1/ 2
A1 (Gain):		82.211 76
A2 (Curvature):		82.22222
n (Exponent):		81.2222
Reslope		QC Normalize
Slope:		81.2222
Y Int:		82.2222
Slope factor:		81.2222
Offset:		82.2222

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
ds-C6g 79/	82.22222	2.2222226C 1	-2.222226C 1	82.22222	-2.222221/ / 4/	82.22222C9696	81
ds-C6 24	82.212222	82.21277	82.222779gg	87.79gg	82.2221/ 2g	82.2222299 7	81
ds-C6/ 967	82.g2222	82.g296C	82.2296C/ C	81.477g	82.22g69Cg	82.22222g16/ 6	81
ds-C6/ 96	81.2222	82.66/ 1	-2.22 7/ 66	-2. 7/ 66	82.2119 C	82.22224 / 2C	81

Sample Name: ICIS-4957862 Acquired: 10/31/2018 8:58:00 Type: Cal
Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00004	.00048	.00000	.00113	.00464	.00083	.00060
Stddev	.00004	.00052	.00002	.00012	.00083	.00005	.00013
%RSD	91.966	108.59	566.29	11.052	17.795	5.8465	21.629

#1	-.00001	.00011	.00001	.00122	.00406	.00080	.00051
#2	-.00007	.00084	-.00001	.00104	.00523	.00087	.00069

Elem	Ca3179	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00930	.00059	.0007	-.00027	-.00001	-.00076	.00033
Stddev	.00023	.00002	.0005	.00025	.00001	.00001	.00000
%RSD	2.5081	3.2034	73.52	90.878	123.90	.79138	1.1319

#1	.00913	.00057	.0010	-.00010	-.00002	-.00077	.00033
#2	.00946	.00060	.0003	-.00045	-.00000	-.00076	.00033

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00007	.00565	-.00109	.00000	.00047	.00046	.00055
Stddev	.00000	.00126	.00054	.00000	.00030	.00002	.00006
%RSD	5.9342	22.210	49.079	710.24	64.282	3.4027	11.353

#1	.00007	.00654	-.00071	.00000	.00069	.00047	.00059
#2	.00008	.00476	-.00147	-.00000	.00026	.00045	.00051

Elem	Na5895	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00389	-.00221	-.00003	.00013	-.0000	.00058	-.00012
Stddev	.00061	.00063	.00009	.00019	.0000	.00006	.00012
%RSD	15.605	28.608	288.99	143.95	60.55	10.520	102.82

#1	.00346	-.00266	-.00010	.00027	-.0000	.00054	-.00003
#2	.00432	-.00177	.00003	-.00000	-.0001	.00063	-.00021

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00266	.00014	-.00392	.00008	-.00029	-.00005	-.00000
Stddev	.00051	.00015	.00013	.00001	.00020	.00000	.00000
%RSD	19.202	102.22	3.2693	6.3798	68.288	3.7829	383.99

#1	.00229	.00004	-.00382	.00008	-.00043	-.00005	.00000
#2	.00302	.00025	-.00401	.00008	-.00015	-.00005	-.00000

Sample Name: ICIS-4957862 Acquired: 10/31/2018 8:58:00 Type: Cal
 Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2801.9	4125.1	130640.	7917.3
Stddev	1.3	1.4	170.	18.1
%RSD	.04795	.03429	.13000	.22904
#1	2802.9	4126.1	130760.	7904.5
#2	2801.0	4124.1	130520.	7930.1

Sample Name: IC-4970377 Acquired: 10/31/2018 9:01:58 Type: Cal
Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00086	.00300	.00088	.00830	.01472	.01228	.00986
Stddev	.00003	.00004	.00006	.00001	.00071	.00006	.00027
%RSD	3.1226	1.3800	6.6075	.07366	4.8466	.45856	2.7579
#1	.00084	.00297	.00092	.00830	.01523	.01224	.00967
#2	.00088	.00303	.00084	.00829	.01422	.01232	.01005
Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3273	Fe2599	Fe2714
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.06940	.00443	.00496	.00037	.00057	.00425	.00005
Stddev	.00002	.00004	.00015	.00001	.00005	.00003	.00004
%RSD	.02947	.81435	2.9631	3.5055	7.9212	.70070	84.701
#1	.06938	.00441	.00506	.00036	.00060	.00428	.00008
#2	.06941	.00446	.00485	.00038	.00054	.00423	.00002
Elem	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03026	.04470	.00211	.00195	.00223	.00662	.18040
Stddev	.00067	.00132	.00001	.00016	.00001	.00008	.00055
%RSD	2.2134	2.9433	.33597	7.9669	.23533	1.2561	.30361
#1	.03074	.04377	.00211	.00184	.00223	.00668	.18001
#2	.02979	.04563	.00210	.00206	.00222	.00656	.18078
Elem	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960	Si2881
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00399	.00837	.00345	.0064	.00296	.00101	.01345
Stddev	.00092	.00003	.00010	.0000	.00001	.00000	.00037
%RSD	23.072	.33253	2.8893	.7568	.39052	.26867	2.7501
#1	.00334	.00835	.00352	.0064	.00296	.00102	.01318
#2	.00464	.00839	.00338	.0064	.00295	.00101	.01371
Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Zn2062	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	.00206	.03269	.00083	.00281	.00053	.00013	
Stddev	.00007	.00032	.00002	.00002	.00002	.00001	
%RSD	3.2075	.97207	2.2909	.85811	3.4744	5.2562	
#1	.00210	.03247	.00082	.00279	.00052	.00013	
#2	.00201	.03292	.00084	.00283	.00055	.00012	

Sample Name: IC-4970377 Acquired: 10/31/2018 9:01:58 Type: Cal
 Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2800.4	4128.2	130970.	7949.3
Stddev	2.5	4.1	15.	11.0
%RSD	.08859	.10009	.01127	.13856
#1	2798.6	4125.3	130960.	7957.1
#2	2802.1	4131.2	130980.	7941.5

Sample Name: IC-4927698 Acquired: 10/31/2018 9:05:49 Type: Cal
Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.07696	.37499	.02852	.19281	2.5613	2.8300	2.3312
Stddev	.00018	.00033	.00008	.00047	.0007	.0107	.0063
%RSD	.23486	.08926	.27624	.24424	.02873	.37795	.27229

#1	.07709	.37476	.02858	.19314	2.5618	2.8376	2.3267
#2	.07683	.37523	.02847	.19248	2.5607	2.8225	2.3357

Elem	Ca3179	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.0021	.85202	.0128	.68741	.04716	.06693	1.9900
Stddev	.0130	.00155	.0004	.00029	.00013	.00014	.0035
%RSD	.43205	.18169	2.770	.04242	.26690	.20313	.17569

#1	2.9929	.85312	.0126	.68761	.04725	.06702	1.9875
#2	3.0113	.85093	.0131	.68720	.04707	.06683	1.9925

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.10010	1.3569	.82831	.26575	.22549	.29328	.32540
Stddev	.00063	.0019	.00062	.00017	.00030	.00035	.00102
%RSD	.62864	.14373	.07537	.06389	.13463	.11794	.31361

#1	.09966	1.3555	.82786	.26587	.22571	.29353	.32612
#2	.10055	1.3583	.82875	.26563	.22528	.29304	.32468

Elem	Na5895	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.7761	.16118	.42047	.14675	.8470	.06633	.02684
Stddev	.0126	.00019	.00025	.00019	.0011	.00013	.00015
%RSD	.26395	.11580	.05838	.12745	.1329	.18865	.55439

#1	4.7850	.16131	.42029	.14688	.8478	.06642	.02673
#2	4.7672	.16104	.42064	.14662	.8462	.06624	.02695

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.60746	.10359	3.7442	.08585	.08197	.06187	.00596
Stddev	.00383	.00024	.0010	.00017	.00056	.00001	.00001
%RSD	.63010	.23242	.02639	.20085	.67975	.01912	.08706

#1	.60475	.10376	3.7449	.08597	.08236	.06188	.00597
#2	.61016	.10342	3.7435	.08573	.08157	.06187	.00596

Sample Name: IC-4927698 Acquired: 10/31/2018 9:05:49 Type: Cal
 Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2601.6	3981.7	125670.	7813.3
Stddev	.5	3.9	451.	27.2
%RSD	.01845	.09908	.35911	.34860
#1	2601.3	3978.9	125350.	7832.6
#2	2602.0	3984.5	125980.	7794.1

Sample Name: IC-4927697 Acquired: 10/31/2018 9:09:33 Type: Cal
Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554	Ba4554-2	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.15908	.75331	.05758	.38555	5.1048	5.6140	4.6082
Stddev	.00035	.00193	.00005	.00061	.0041	.0357	.0016
%RSD	.22120	.25589	.08332	.15923	.08037	.63522	.03477

#1	.15933	.75195	.05761	.38511	5.1019	5.6392	4.6071
#2	.15883	.75467	.05754	.38598	5.1077	5.5887	4.6094

Elem	Ca3179	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.9568	1.7125	.0267	1.3889	.09312	.13448	3.9223
Stddev	.0018	.0018	.0005	.0005	.00019	.00000	.0001
%RSD	.03017	.10213	1.999	.03507	.20218	.00145	.00227

#1	5.9556	1.7112	.0263	1.3893	.09325	.13448	3.9222
#2	5.9581	1.7137	.0270	1.3886	.09298	.13448	3.9223

Elem	Fe2714	K_7664	Li6707	Mg2790	Mn2576-2	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.19857	2.7768	1.7037	.52887	.44537	.57840	.64689
Stddev	.00042	.0010	.0053	.00085	.00095	.00077	.00069
%RSD	.20974	.03622	.31033	.16042	.21386	.13381	.10726

#1	.19828	2.7761	1.6999	.52947	.44469	.57894	.64640
#2	.19887	2.7775	1.7074	.52827	.44604	.57785	.64738

Elem	Na5895	Na8183	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.7606	.32583	.84091	.29414	1.711	.13298	.05478
Stddev	.0055	.00019	.00039	.00033	.001	.00061	.00009
%RSD	.05676	.05863	.04592	.11194	.0778	.46002	.15972

#1	9.7567	.32569	.84118	.29437	1.712	.13341	.05472
#2	9.7645	.32596	.84063	.29391	1.711	.13254	.05484

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.1814	.21010	7.4921	.17105	.16362	.12295	.01167
Stddev	.0032	.00016	.0068	.00035	.00065	.00014	.00004
%RSD	.27148	.07697	.09053	.20190	.39804	.11554	.31869

#1	1.1791	.21021	7.4873	.17129	.16316	.12305	.01165
#2	1.1836	.20999	7.4969	.17081	.16408	.12285	.01170

Sample Name: IC-4927697 Acquired: 10/31/2018 9:09:33 Type: Cal
 Method: oct2018updatediecs(v30) Mode: IR Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2492.8	3898.5	123520.	7706.8
Stddev	3.7	3.0	209.	7.2
%RSD	.14920	.07582	.16884	.09292
#1	2490.2	3896.5	123380.	7701.7
#2	2495.4	3900.6	123670.	7711.8

Sample Name: ICV-4954074 Acquired: 10/31/2018 9:13:14 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.37761	18.449	.37220	.36790	.37352	.37356	18.844	.37173
Stddev	.00000	.127	.00701	.00081	.00130	.00090	.011	.00001
%RSD	.00068	.68652	1.8842	.22105	.34883	.24215	.05958	.00327

#1	.37760	18.359	.37716	.36847	.37444	.37420	18.836	.37172
#2	.37761	18.539	.36725	.36732	.37259	.37292	18.852	.37173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026	.36632	.37902	.37314	18.786	18.207	.35885	18.405
Stddev	.0312	.00078	.00201	.00182	.004	.014	.00166	.083
%RSD	1201.	.21308	.53051	.48810	.01862	.07859	.46218	.44851

#1	.0247	.36576	.38045	.37443	18.789	18.197	.35767	18.464
#2	-.0195	.36687	.37760	.37186	18.784	18.217	.36002	18.347

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38661	.37826	18.254	.36832	.36660	18.53	.36602	.37092
Stddev	.00189	.00032	.028	.00096	.00035	.01	.00110	.00167
%RSD	.48862	.08369	.15460	.26039	.09630	.0320	.30131	.45120

#1	.38795	.37849	18.274	.36765	.36635	18.53	.36680	.37210
#2	.38527	.37804	18.234	.36900	.36685	18.52	.36524	.36974

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ICV-4954074 Acquired: 10/31/2018 9:13:14 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.045	.37563	.38137	.37247	.36907	.37570	.37568
Stddev	.206	.00268	.00042	.00188	.00004	.00213	.00276
%RSD	1.0798	.71275	.11012	.50393	.01024	.56611	.73473
#1	18.899	.37752	.38166	.37380	.36904	.37720	.37764
#2	19.190	.37373	.38107	.37114	.36910	.37419	.37373

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2636.7	3959.0	126190.	7764.2
Stddev	3.2	1.2	307.	8.3
%RSD	.12056	.03117	.24290	.10658
#1	2638.9	3958.1	125970.	7758.3
#2	2634.4	3959.9	126410.	7770.0

Sample Name: ICB-4957862 Acquired: 10/31/2018 9:16:58 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	-.02350	.00189	.00037	-.00001	-.00008	.00067	.00003
Stddev	.00012	.02137	.00027	.00031	.00001	.00001	.00453	.00006
%RSD	89.355	90.963	14.490	85.118	93.964	7.3298	673.52	241.92

#1	-.00005	-.03861	.00209	.00059	-.00001	-.00008	.00388	.00007
#2	-.00021	-.00838	.00170	.00015	-.00000	-.00007	-.00253	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0012	-.00009	-.00027	.00045	.00159	-.05269	.00001	-.00202
Stddev	.0164	.00004	.00021	.00014	.00203	.01079	.00039	.00010
%RSD	1334.	51.002	75.901	30.259	127.32	20.474	5966.3	5.0557

#1	-.0128	-.00006	-.00042	.00054	.00016	-.04506	-.00027	-.00209
#2	.0104	-.00012	-.00013	.00035	.00303	-.06032	.00028	-.00195

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00040	-.01094	.00025	.00062	-.0013	-.00111	-.00384
Stddev	.00000	.00013	.00789	.00013	.00007	.0005	.00042	.00066
%RSD	.63458	33.386	72.095	51.583	11.275	35.19	37.870	17.093

#1	.00022	.00030	-.01652	.00034	.00067	-.0010	-.00141	-.00430
#2	.00022	.00049	-.00536	.00016	.00057	-.0016	-.00082	-.00337

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICB-4957862 Acquired: 10/31/2018 9:16:58 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02485	-.00051	-.00007	.00000	.00062	-.00021	.00233
Stddev	.02375	.00012	.00006	.00007	.00028	.00010	.00017
%RSD	95.581	23.261	85.471	2000.8	45.668	47.460	7.2837

#1	-.00805	-.00059	-.00011	.00005	.00082	-.00014	.00245
#2	-.04164	-.00042	-.00003	-.00004	.00042	-.00028	.00221

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2782.3	4087.4	129970.	7874.1
Stddev	.8	4.5	101.	26.9
%RSD	.02955	.11057	.07773	.34205

#1	2781.7	4084.2	129900.	7855.0
#2	2782.8	4090.6	130040.	7893.1

Sample Name: iCVL-4970377 Acquired: 10/31/2018 9:20:49 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00542	.20445	.01598	.01931	.00204	.00196	.50483	.00213
Stddev	.00043	.01495	.00391	.00016	.00000	.00000	.00674	.00004
%RSD	7.8631	7.3115	24.474	.85089	.23955	.16957	1.3345	1.9684
#1	.00572	.21502	.01874	.01943	.00204	.00195	.50959	.00210
#2	.00512	.19388	.01321	.01919	.00203	.00196	.50007	.00216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0112	.00403	.00395	.00972	.05068	.44388	.02714	.19943
Stddev	.0150	.00016	.00033	.00029	.00003	.01394	.00032	.00231
%RSD	134.5	3.9857	8.4034	2.9906	.06398	3.1399	1.1829	1.1587
#1	-.0218	.00392	.00372	.00993	.05066	.43402	.02737	.20107
#2	-.0006	.00415	.00419	.00952	.05071	.45373	.02692	.19780

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00308	.00956	.91411	.01011	.01041	.1889	.01783	.02007
Stddev	.00009	.00004	.00428	.00012	.00018	.0006	.00063	.00230
%RSD	2.8462	.44682	.46782	1.1524	1.7659	.3006	3.5285	11.462
#1	.00302	.00959	.91714	.01019	.01054	.1885	.01827	.01844
#2	.00314	.00953	.91109	.01003	.01028	.1893	.01738	.02170

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: iCVL-4970377 Acquired: 10/31/2018 9:20:49 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44738	.00901	.00501	.00468	.01981	.00473	.01014
Stddev	.00003	.00008	.00009	.00000	.00092	.00033	.00017
%RSD	.00608	.83378	1.7473	.01255	4.6523	6.9882	1.6670

#1	.44736	.00896	.00495	.00468	.02046	.00450	.01025
#2	.44740	.00906	.00507	.00468	.01916	.00496	.01002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.9	4111.7	130300.	7903.8
Stddev	3.4	10.3	193.	27.6
%RSD	.12303	.25082	.14829	.34970

#1	2787.5	4104.4	130160.	7884.2
#2	2792.3	4119.0	130430.	7923.3

Sample Name: ICSA-4901305 Acquired: 10/31/2018 9:24:40 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00115	510.76	-.00263	-.00009	.00094	-.00000	480.76	.00030
Stddev	.00042	.43	.00119	.00106	.00000	.00008	2.08	.00017
%RSD	36.502	.08421	45.415	1232.8	.11384	2251.3	.43366	55.718

#1	-.00085	511.06	-.00347	-.00083	.00095	.00005	479.29	.00042
#2	-.00145	510.45	-.00178	.00066	.00094	-.00006	482.24	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0541	-.00027	-.00145	.00046	193.60	-.03374	.00348	515.88
Stddev	.0196	.00040	.00019	.00032	.54	.00603	.00029	.90
%RSD	36.20	149.54	13.100	69.877	.28081	17.870	8.3152	.17402

#1	.0402	.00002	-.00158	.00069	193.98	-.02948	.00328	515.24
#2	.0679	-.00055	-.00131	.00023	193.21	-.03800	.00369	516.51

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	.00034	.02312	.00029	-.00195	.0093	.01990	.00159
Stddev	.00006	.00019	.00125	.00042	.00091	.0017	.00430	.00005
%RSD	10.371	55.445	5.4042	146.46	46.825	18.62	21.608	3.0231

#1	-.00064	.00048	.02400	.00059	-.00260	.0081	.02294	.00156
#2	-.00055	.00021	.02224	-.00001	-.00131	.0106	.01686	.00163

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICSA-4901305 Acquired: 10/31/2018 9:24:40 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04112	-0.00241	.01587	-0.00053	-0.00235	-0.00048	.00377
Stddev	.00599	.00033	.00005	.00039	.00329	.00004	.00032
%RSD	14.578	13.889	.29900	72.544	139.87	8.4745	8.3872

#1	-0.04536	-0.00217	.01590	-0.00081	-0.00003	-0.00051	.00355
#2	-0.03688	-0.00265	.01584	-0.00026	-0.00468	-0.00045	.00399

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2130.4	3523.6	111360.	7424.4
Stddev	1.4	4.5	165.	12.1
%RSD	.06660	.12656	.14772	.16356

#1	2129.4	3520.4	111480.	7433.0
#2	2131.4	3526.7	111240.	7415.8

Sample Name: ICSAB-4954073 Acquired: 10/31/2018 9:28:38 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22401	533.29	.10837	.00459	.51733	.50769	484.20	1.0392
Stddev	.00137	.43	.00065	.00024	.00097	.00059	.62	.0005
%RSD	.61097	.08042	.60414	5.2662	.18823	.11583	.12830	.04397
#1	.22304	533.60	.10791	.00442	.51664	.50727	484.64	1.0389
#2	.22497	532.99	.10883	.00476	.51802	.50810	483.76	1.0396

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0272	.49744	.48256	.55283	95.786	.03785	.56271	526.00
Stddev	.0119	.00009	.00049	.00064	.206	.02469	.00069	2.74
%RSD	43.71	.01863	.10229	.11585	.21459	65.237	.12236	.52148
#1	.0356	.49738	.48221	.55238	95.641	.05531	.56222	524.06
#2	.0188	.49751	.48291	.55328	95.931	.02039	.56319	527.94

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47727	.00148	.17913	.97434	.05143	1.044	.62474	.05529
Stddev	.00125	.00060	.00422	.00010	.00275	.009	.00258	.00148
%RSD	.26198	40.476	2.3546	.01077	5.3427	.8381	.41364	2.6748
#1	.47638	.00190	.17615	.97427	.04949	1.050	.62657	.05633
#2	.47815	.00105	.18211	.97441	.05337	1.037	.62291	.05424

Check ? Value Range	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: ICSAB-4954073 Acquired: 10/31/2018 9:28:38 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96877	-.00414	.51326	.00046	.09914	.51450	.96355
Stddev	.01724	.00061	.00018	.00029	.00001	.00007	.00210
%RSD	1.7792	14.819	.03492	63.864	.00894	.01330	.21748

#1	.95659	-.00371	.51313	.00025	.09914	.51445	.96207
#2	.98096	-.00458	.51339	.00067	.09913	.51455	.96504

Check ?	Chk Pass	None	None	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2133.4	3543.2	111040.	7430.3
Stddev	3.1	4.5	419.	16.0
%RSD	.14318	.12709	.37749	.21531

#1	2131.3	3540.0	111330.	7419.0
#2	2135.6	3546.3	110740.	7441.6

Sample Name: ICEX1 Acquired: 10/31/2018 9:32:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00940	5.0834	-.00077	.00033
Stddev	.00030	.00487	.0110	.00050	.00000
%RSD	116.12	51.790	.21659	65.125	1.0531

#1	.00005	.01284	5.0756	-.00042	.00033
#2	.00046	.00595	5.0912	-.00112	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.02632	.00010	-.0011	.00034
Stddev	.00002	.00335	.00013	.0140	.00000
%RSD	100.67	12.712	124.67	1294.	1.0747

#1	-.00004	.02868	.00001	-.0110	.00034
#2	-.00001	.02395	.00020	.0088	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	25.027	.00946	-.01639	.00066
Stddev	.00029	.273	.00107	.02239	.00034
%RSD	178.36	1.0917	11.263	136.61	51.668

#1	-.00004	24.834	.01021	-.03222	.00042
#2	.00036	25.220	.00871	-.00056	.00090

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX1 Acquired: 10/31/2018 9:32:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00344	-.00028	.00091	-.01387	.00008
Stddev	.00164	.00002	.00017	.00232	.00007
%RSD	47.711	7.1672	18.575	16.752	90.973

#1	.00460	-.00029	.00079	-.01223	.00013
#2	.00228	-.00026	.00103	-.01551	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00233	-.0023	.00187	-.00349	-.04110
Stddev	.00080	.0011	.00094	.00044	.00107
%RSD	34.263	47.51	50.286	12.522	2.5985

#1	-.00176	-.0015	.00253	-.00318	-.04035
#2	-.00289	-.0030	.00120	-.00380	-.04186

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.00002	-.00194	.00177	4.6836
Stddev	.00030	.00001	.00005	.00042	.0141
%RSD	80.909	77.625	2.4376	23.510	.30048

#1	.00059	.00001	-.00197	.00206	4.6736
#2	.00016	.00002	-.00190	.00147	4.6935

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX1 Acquired: 10/31/2018 9:32:35 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00157**
 Stddev .00052
 %RSD 33.060

#1 **.00194**
 #2 **.00120**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2759.4	4057.0	128890.	7846.0
Stddev	5.5	1.9	249.	8.6
%RSD	.20085	.04700	.19288	.10992

#1	2763.3	4058.3	129070.	7852.1
#2	2755.5	4055.6	128720.	7839.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.481%	98.348%	98.663%	99.100%
Range				

Sample Name: ICEx2 Acquired: 10/31/2018 9:36:34 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00119	.01424	-.00044	.00568	.00003
Stddev	.00024	.01694	.00113	.00006	.00001
%RSD	19.917	119.00	257.96	1.0399	37.444

#1	-.00102	.02622	.00036	.00564	.00002
#2	-.00135	.00226	-.00124	.00572	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.02074	.00065	-.0034	-.00148
Stddev	.00012	.00466	.00007	.0072	.00033
%RSD	52.711	22.475	10.998	213.4	22.376

#1	.00014	.02404	.00060	.0017	-.00125
#2	.00031	.01744	.00071	-.0085	-.00172

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00086	-.01684	.00162	-.05631	9.4693
Stddev	.00048	.00023	.00114	.00862	.0130
%RSD	55.650	1.3801	70.399	15.315	.13691

#1	.00052	-.01667	.00243	-.06241	9.4601
#2	.00120	-.01700	.00081	-.05022	9.4785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEx2 Acquired: 10/31/2018 9:36:34 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.03863	-.00008	-.00003	-.00423	.00780
Stddev	.00168	.00002	.00015	.00815	.00008
%RSD	4.3586	22.927	512.64	192.65	.99366

#1	-.03982	-.00009	-.00013	.00153	.00774
#2	-.03744	-.00007	.00007	-.01000	.00785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00759	-.0041	.00039	.00134	51.207
Stddev	.00050	.0013	.00053	.00151	.416
%RSD	6.5682	31.19	138.00	112.68	.81243

#1	-.00794	-.0032	.00001	.00027	50.913
#2	-.00723	-.0050	.00076	.00242	51.501

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00150	.00003	19.858	19.404	-.00002
Stddev	.00077	.00004	.197	.004	.00006
%RSD	51.651	114.30	.99172	.02242	346.62

#1	-.00205	.00001	19.719	19.407	-.00006
#2	-.00095	.00006	19.997	19.401	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX2 Acquired: 10/31/2018 9:36:34 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00361**
 Stddev .00064
 %RSD 17.737

#1 **.00316**
 #2 **.00406**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2679.9	4066.0	126880.	7838.6
Stddev	.9	3.6	225.	19.1
%RSD	.03188	.08836	.17763	.24425

#1	2680.5	4068.5	127040.	7852.1
#2	2679.3	4063.4	126720.	7825.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.644%	98.566%	97.122%	99.006%
Range				

Sample Name: ICEX3 Acquired: 10/31/2018 9:40:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00145	.01649	.00135	.00038	.00000
Stddev	.00017	.00016	.00145	.00017	.00000
%RSD	11.572	.99867	106.91	43.534	141.25

#1	-.00133	.01661	.00237	.00050	.00000
#2	-.00156	.01638	.00033	.00026	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.03206	.00027	-.1402	.00031
Stddev	.00008	.00119	.00005	.0344	.00003
%RSD	97.314	3.7178	18.009	24.55	10.847

#1	-.00014	.03122	.00031	-.1159	.00029
#2	-.00003	.03290	.00024	-.1645	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00110	.00168	.00878	-.05796	.00201
Stddev	.00010	.00023	.00273	.02076	.00052
%RSD	9.0347	13.501	31.050	35.816	26.097

#1	-.00117	.00184	.00685	-.04328	.00164
#2	-.00103	.00152	.01071	-.07264	.00238

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEx3 Acquired: 10/31/2018 9:40:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00644	50.839	-.00130	-.01169	.00062
Stddev	.00259	.121	.00016	.00312	.00002
%RSD	40.171	.23784	12.659	26.666	3.8322

#1	-.00461	50.754	-.00118	-.01390	.00064
#2	-.00827	50.925	-.00141	-.00949	.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00470	95.77	-.00247	.01915	.01960
Stddev	.00102	.07	.00022	.00114	.01968
%RSD	21.788	.0734	8.7766	5.9556	100.42

#1	.00398	95.72	-.00262	.01995	.03352
#2	.00542	95.82	-.00231	.01834	.00568

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00007	F .01050	-.00514	.00049
Stddev	.00075	.00005	.00053	.00065	.00007
%RSD	542.83	74.565	4.9998	12.599	14.298

#1	.00039	.00003	.01013	-.00469	.00054
#2	-.00067	.00010	.01087	-.00560	.00044

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			.00500		
Low Limit			-.00500		

Sample Name: ICEX3 Acquired: 10/31/2018 9:40:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00445**
 Stddev .00051
 %RSD 11.534

#1 **.00482**
 #2 **.00409**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2763.8	4044.9	128590.	7881.5
Stddev	2.3	2.9	421.	19.5
%RSD	.08174	.07099	.32743	.24750

#1	2762.2	4042.9	128890.	7895.3
#2	2765.4	4046.9	128290.	7867.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.638%	98.056%	98.428%	99.548%
Range				

Sample Name: ICEx4 Acquired: 10/31/2018 9:44:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	-.01515	-.00378	-.00147	.00002
Stddev	.00000	.00696	.00246	.00009	.00001
%RSD	.86699	45.940	65.126	6.0329	71.054

#1	-.00036	-.01023	-.00553	-.00153	.00003
#2	-.00035	-.02007	-.00204	-.00141	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.01409	-.00017	-.0144	19.514
Stddev	.00001	.00178	.00004	.0029	.013
%RSD	11.804	12.636	24.265	20.01	.06562

#1	-.00007	.01535	-.00020	-.0124	19.523
#2	-.00009	.01283	-.00014	-.0165	19.505

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.488	.00454	.00321	-.05490	.00058
Stddev	.009	.00020	.00086	.01288	.00025
%RSD	.08519	4.3238	26.720	23.463	42.513

#1	10.481	.00440	.00260	-.04579	.00041
#2	10.494	.00468	.00382	-.06400	.00076

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEx4 Acquired: 10/31/2018 9:44:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.01141	F .02287	.00025	-.02484	10.212
Stddev	.00252	.00002	.00007	.00087	.015
%RSD	22.071	.07029	29.424	3.4902	.14227

#1	-.01319	.02289	.00020	-.02546	10.222
#2	-.00963	.02286	.00030	-.02423	10.202

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.00300			
Low Limit		-.00300			

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.0401	.00292	-.00026	-.11872
Stddev	.00002	.0030	.00115	.00274	.00932
%RSD	6.8990	7.550	39.286	1050.6	7.8493

#1	-.00027	.0423	.00211	.00168	-.12531
#2	-.00029	.0380	.00373	-.00220	-.11213

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00004	.00165	-.00146	-.00006
Stddev	.00009	.00006	.00019	.00037	.00003
%RSD	54.865	155.02	11.523	25.641	52.006

#1	.00010	.00000	.00151	-.00172	-.00008
#2	.00023	-.00007	.00178	-.00119	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX4 Acquired: 10/31/2018 9:44:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00471**
Stddev .00004
%RSD .88489

#1 **.00474**
#2 **.00468**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2751.1	4069.1	128200.	7816.3
Stddev	2.9	1.1	307.	1.7
%RSD	.10582	.02733	.23974	.02189

#1	2749.1	4069.9	128410.	7815.1
#2	2753.2	4068.3	127980.	7817.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.188%	98.642%	98.127%	98.725%
Range				

Sample Name: ICEX5 Acquired: 10/31/2018 9:48:13 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.07205	.00854	-.00571	-.00007
Stddev	.00030	.01129	.00084	.00022	.00001
%RSD	517.46	15.667	9.8862	3.8670	13.108

#1	.00015	.08003	.00795	-.00586	-.00006
#2	-.00027	.06406	.00914	-.00555	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.01111	.00018	.0242	.00334
Stddev	.00012	.00090	.00002	.0298	.00000
%RSD	46.669	8.0849	8.5128	123.5	.07450

#1	-.00035	.01174	.00019	.0031	.00334
#2	-.00018	.01047	.00017	.0453	.00334

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .00518	-.00124	.00035	-.04817	.00068
Stddev	.00008	.00013	.00072	.01693	.00048
%RSD	1.5163	10.288	203.28	35.139	70.062

#1	.00512	-.00133	-.00015	-.06014	.00102
#2	.00523	-.00115	.00086	-.03620	.00035

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00400				
Low Limit	-.00400				

Sample Name: ICEX5 Acquired: 10/31/2018 9:48:13 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.07218	.00091	4.7666	-.00917	.00470
Stddev	.00051	.00002	.0258	.00152	.00000
%RSD	.70682	2.5638	.54214	16.548	.07704

#1	-.07182	.00090	4.7484	-.00809	.00470
#2	-.07254	.00093	4.7849	-.01024	.00469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00631	-.0044	-.00251	-.00136	-.04766
Stddev	.00032	.0000	.00052	.00229	.01931
%RSD	5.1139	.2793	20.505	168.19	40.518

#1	-.00654	-.0044	-.00288	.00026	-.06131
#2	-.00608	-.0044	-.00215	-.00298	-.03400

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	-.00004	.00439	.00066	.00092
Stddev	.00003	.00001	.00016	.00090	.00013
%RSD	16.205	34.106	3.7089	136.45	14.639

#1	-.00019	-.00005	.00451	.00129	.00082
#2	-.00023	-.00003	.00428	.00002	.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX5 Acquired: 10/31/2018 9:48:13 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00154**
 Stddev .00109
 %RSD 70.545

#1 **.00231**
 #2 **.00077**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2796.7	4168.3	131910.	8004.3
Stddev	4.6	18.6	216.	15.6
%RSD	.16584	.44621	.16406	.19528

#1	2800.0	4181.5	132060.	7993.3
#2	2793.4	4155.2	131750.	8015.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.814%	101.05%	100.97%	101.10%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 9:52:04 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50155	24.515	.48268	.46127	.49288	.49073	24.774	.48629
Stddev	.00078	.057	.00219	.00047	.00125	.00130	.002	.00124
%RSD	.15531	.23297	.45442	.10129	.25341	.26514	.00687	.25414

#1	.50210	24.475	.48423	.46160	.49199	.48981	24.775	.48716
#2	.50100	24.555	.48113	.46094	.49376	.49165	24.773	.48542

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0251	.48551	.50548	.49655	24.880	24.361	.47847	24.344
Stddev	.0244	.00028	.00058	.00000	.012	.018	.00125	.038
%RSD	97.37	.05808	.11398	.00038	.04908	.07313	.26077	.15633

#1	-.0424	.48531	.50507	.49656	24.889	24.374	.47759	24.318
#2	-.0078	.48571	.50589	.49655	24.872	24.349	.47935	24.371

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51360	.50874	24.557	.49099	.48272	24.38	.47759	.48710
Stddev	.00052	.00172	.019	.00106	.00009	.03	.00064	.00113
%RSD	.10093	.33870	.07537	.21505	.01807	.1232	.13343	.23290

#1	.51324	.50996	24.570	.49024	.48266	24.36	.47714	.48790
#2	.51397	.50752	24.544	.49173	.48278	24.41	.47804	.48630

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/31/2018 9:52:04 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.310	.49879	.51051	.49771	.48236	.50392	.48916
Stddev	.018	.00025	.00116	.00065	.00111	.00155	.00279
%RSD	.07462	.04970	.22803	.13013	.23076	.30805	.57002

#1	24.323	.49861	.51133	.49726	.48158	.50283	.48719
#2	24.297	.49896	.50969	.49817	.48315	.50502	.49113

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2605.5	3977.9	125130.	7754.6
Stddev	1.4	10.5	716.	23.6
%RSD	.05290	.26324	.57208	.30393

#1	2604.5	3970.5	125640.	7738.0
#2	2606.5	3985.3	124620.	7771.3

Sample Name: CCB-4957862 Acquired: 10/31/2018 9:55:48 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.01939	.00138	-.00047	-.00001	.00002	-.00190	.00007
Stddev	.00031	.00490	.00045	.00035	.00000	.00003	.00203	.00008
%RSD	151.50	25.290	32.862	75.344	15.169	172.38	107.16	121.46

#1	.00001	-.01593	.00106	-.00022	-.00001	.00004	-.00333	.00001
#2	-.00042	-.02286	.00170	-.00072	-.00001	-.00000	-.00046	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0120	.00018	.00022	.00022	-.00050	-.08723	.00007	-.00216
Stddev	.0072	.00015	.00018	.00003	.00148	.01295	.00054	.00211
%RSD	60.22	80.626	81.307	11.510	298.76	14.847	773.42	97.604

#1	-.0171	.00029	.00009	.00020	-.00155	-.07807	.00045	-.00365
#2	-.0069	.00008	.00035	.00024	.00055	-.09638	-.00031	-.00067

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00220	-.02039	-.00001	.00155	-.0016	-.00108	-.00056
Stddev	.00009	.00004	.00044	.00021	.00051	.0009	.00147	.00162
%RSD	747.99	1.9046	2.1626	2368.6	32.887	56.67	136.17	290.73

#1	.00008	.00223	-.02070	-.00015	.00119	-.0009	-.00004	-.00170
#2	-.00005	.00217	-.02008	.00014	.00191	-.0022	-.00212	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 9:55:48 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04042	-.00040	-.00009	.00008	.00038	-.00002	.00026
Stddev	.00974	.00030	.00004	.00013	.00010	.00027	.00033
%RSD	24.086	76.640	38.571	156.63	27.150	1452.3	125.21

#1	-.03354	-.00061	-.00012	-.00001	.00045	.00017	.00050
#2	-.04730	-.00018	-.00007	.00017	.00031	-.00021	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2777.9	4097.5	129510.	7891.9
Stddev	.3	.3	254.	11.2
%RSD	.01104	.00816	.19618	.14252

#1	2778.1	4097.7	129690.	7899.9
#2	2777.7	4097.3	129330.	7884.0

Sample Name: CCVL-4970377 Acquired: 10/31/2018 10:06:13 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00580	.18991	.01426	.01877	.00205	.00198	.50917	.00206
Stddev	.00010	.01164	.00070	.00010	.00003	.00005	.00212	.00002
%RSD	1.8004	6.1280	4.9244	.53786	1.4396	2.3186	.41542	1.1380
#1	.00573	.19814	.01476	.01870	.00207	.00201	.51067	.00204
#2	.00588	.18168	.01376	.01884	.00203	.00194	.50768	.00207

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0208	.00412	.00411	.00949	.05252	.38165	.02643	.20362
Stddev	.0022	.00009	.00005	.00010	.00596	.03402	.00061	.00361
%RSD	10.70	2.1588	1.2459	1.0603	11.345	8.9137	2.3217	1.7748
#1	-.0192	.00419	.00407	.00942	.05673	.35760	.02600	.20107
#2	-.0224	.00406	.00415	.00956	.04831	.40571	.02686	.20618

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00312	.00950	.90615	.01023	.01005	.1886	.01763	.02493
Stddev	.00005	.00016	.00213	.00015	.00002	.0009	.00011	.00080
%RSD	1.5777	1.6876	.23497	1.4411	.23509	.4600	.60482	3.2192
#1	.00316	.00939	.90464	.01033	.01003	.1892	.01771	.02550
#2	.00309	.00961	.90765	.01012	.01006	.1880	.01756	.02437

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 10:06:13 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43600	.00916	.00505	.00465	.01971	.00484	.01063
Stddev	.00688	.00105	.00000	.00008	.00118	.00003	.00088
%RSD	1.5782	11.447	.04135	1.7455	5.9760	.52835	8.2840

#1	.44087	.00841	.00506	.00459	.01888	.00483	.01126
#2	.43113	.00990	.00505	.00470	.02055	.00486	.01001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2783.9	4136.3	129490.	7934.5
Stddev	.9	3.7	291.	.6
%RSD	.03195	.09004	.22460	.00704

#1	2784.6	4133.6	129290.	7934.9
#2	2783.3	4138.9	129700.	7934.1

Sample Name: 480-144104-B-1-A Acquired: 10/31/2018 10:10:05 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.00295	.00219	.15749	.29827
Stddev	.00005	.01765	.00058	.00023	.00003
%RSD	9.4748	598.81	26.207	.14532	.00991

#1	-.00049	.01543	.00260	.15733	.29825
#2	-.00056	-.00953	.00179	.15765	.29830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	40.284	.00014	-.0094	-.00021
Stddev	.00009	.014	.00000	.0243	.00005
%RSD	1282.9	.03434	1.2804	257.4	22.428

#1	-.00007	40.275	.00013	.0077	-.00018
#2	.00006	40.294	.00014	-.0266	-.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00022	1.1927	2.6137	.03763
Stddev	.00015	.00002	.0002	.0368	.00011
%RSD	38.724	10.450	.01379	1.4091	.29144

#1	.00028	.00024	1.1926	2.5876	.03755
#2	.00049	.00021	1.1928	2.6397	.03770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144104-B-1-A Acquired: 10/31/2018 10:10:05 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	13.955	.19889	.00026	52.948	-.00023
Stddev	.010	.00003	.00004	.027	.00011
%RSD	.07422	.01515	16.446	.05183	48.273

#1	13.948	.19887	.00029	52.929	-.00015
#2	13.963	.19891	.00023	52.968	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	5.282	-.00230	-.00165	4.6901
Stddev	.00122	.001	.00175	.00039	.0269
%RSD	302.26	.0258	76.133	23.840	.57429

#1	.00046	5.283	-.00353	-.00193	4.7092
#2	-.00126	5.281	-.00106	-.00137	4.6711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.30456	-.00034	.00030	-.00038
Stddev	.00005	.00056	.00022	.00025	.00012
%RSD	10.506	.18481	65.253	84.025	32.957

#1	-.00040	.30496	-.00018	.00047	-.00046
#2	-.00046	.30416	-.00049	.00012	-.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144104-B-1-A Acquired: 10/31/2018 10:10:05 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02492**
 Stddev .00054
 %RSD 2.1783

#1 **.02530**
 #2 **.02453**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2628.0	3982.6	126090.	7871.8
Stddev	3.2	3.8	83.	7.8
%RSD	.12334	.09657	.06551	.09891

#1	2625.7	3979.9	126040.	7877.3
#2	2630.3	3985.3	126150.	7866.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.793%	96.545%	96.519%	99.425%
Range				

Sample Name: 480-144104-B-1-B MS Acquired: 10/31/2018 10:13:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04930	9.8158	.19986	.35714	.50548
Stddev	.00010	.0309	.00319	.00012	.00057
%RSD	.19489	.31513	1.5974	.03282	.11235

#1	.04936	9.8377	.20212	.35722	.50588
#2	.04923	9.7939	.19760	.35705	.50508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20353	51.282	.19862	-.0156	.19077
Stddev	.00014	.030	.00018	.0057	.00055
%RSD	.07090	.05906	.08847	36.37	.28806

#1	.20343	51.260	.19874	-.0116	.19038
#2	.20363	51.303	.19849	-.0196	.19115

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19976	.19327	11.094	12.579	.23383
Stddev	.00107	.00049	.028	.011	.00055
%RSD	.53539	.25283	.25043	.09078	.23311

#1	.20051	.19362	11.075	12.571	.23344
#2	.19900	.19293	11.114	12.587	.23421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144104-B-1-B MS Acquired: 10/31/2018 10:13:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.217	.40055	.19202	64.509	.20117
Stddev	.037	.00065	.00029	.065	.00031
%RSD	.15378	.16338	.15305	.10076	.15432

#1	24.190	.40008	.19223	64.554	.20095
#2	24.243	.40101	.19181	64.463	.20139

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19375	15.05	.19215	.19465	14.333
Stddev	.00080	.01	.00035	.00080	.019
%RSD	.41075	.0353	.18266	.41225	.13242

#1	.19319	15.05	.19190	.19521	14.346
#2	.19431	15.06	.19240	.19408	14.319

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19647	.51421	.19429	.19798	.20169
Stddev	.00118	.00011	.00071	.00105	.00062
%RSD	.59845	.02083	.36637	.52790	.30726

#1	.19564	.51429	.19379	.19872	.20213
#2	.19730	.51414	.19479	.19724	.20126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144104-B-1-B MS Acquired: 10/31/2018 10:13:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.22989**
Stddev .00193
%RSD .83785

#1 **.23126**
#2 **.22853**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2561.2	3955.0	123880.	7832.0
Stddev	1.2	.9	162.	7.8
%RSD	.04700	.02387	.13083	.09923

#1	2562.0	3955.7	123990.	7826.5
#2	2560.3	3954.3	123760.	7837.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.408%	95.876%	94.823%	98.923%
Range				

Sample Name: 480-144104-B-1-C MSD Acquired: 10/31/2018 10:17:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04909	9.7938	.20085	.36108	.50966
Stddev	.00030	.0031	.00032	.00118	.00187
%RSD	.60404	.03115	.15860	.32583	.36599

#1	.04888	9.7916	.20107	.36024	.50834
#2	.04930	9.7959	.20062	.36191	.51098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20229	51.956	.19661	-.0043	.18905
Stddev	.00004	.117	.00041	.0066	.00017
%RSD	.01733	.22576	.21046	154.4	.09241

#1	.20232	51.873	.19631	-.0090	.18893
#2	.20227	52.039	.19690	.0004	.18917

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19722	.19093	11.046	12.719	.23483
Stddev	.00165	.00010	.006	.014	.00006
%RSD	.83611	.05383	.05293	.10788	.02355

#1	.19606	.19101	11.050	12.709	.23487
#2	.19839	.19086	11.042	12.728	.23479

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144104-B-1-C MSD Acquired: 10/31/2018 10:17:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.378	.40254	.19001	65.413	.19960
Stddev	.013	.00008	.00033	.089	.00041
%RSD	.05261	.02034	.17321	.13576	.20758

#1	24.369	.40248	.18977	65.476	.19989
#2	24.387	.40260	.19024	65.350	.19931

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19068	15.22	.19140	.19263	14.410
Stddev	.00063	.00	.00071	.00056	.000
%RSD	.33293	.0093	.36901	.29070	.00066

#1	.19023	15.22	.19090	.19303	14.410
#2	.19113	15.22	.19190	.19224	14.410

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19685	.52047	.19301	.19304	.20021
Stddev	.00006	.00031	.00002	.00232	.00049
%RSD	.03112	.05939	.01167	1.2017	.24632

#1	.19681	.52069	.19302	.19140	.20056
#2	.19689	.52025	.19299	.19468	.19986

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144104-B-1-C MSD Acquired: 10/31/2018 10:17:38 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22715**
 Stddev .00212
 %RSD .93322

#1 **.22565**
 #2 **.22865**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2552.8	3955.3	124020.	7852.9
Stddev	1.3	3.0	110.	18.6
%RSD	.05031	.07600	.08878	.23714

#1	2553.7	3957.4	123950.	7866.1
#2	2551.8	3953.2	124100.	7839.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.107%	95.883%	94.935%	99.187%
Range				

Sample Name: 480-144111-G-1-A@20 Acquired: 10/31/2018 10:21:23 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00092	.01722	-.00031	.03041	.67913
Stddev	.00002	.01941	.00089	.00082	.00141
%RSD	1.7109	112.74	290.56	2.6931	.20788

#1	-.00093	.00349	.00032	.02983	.67813
#2	-.00091	.03094	-.00094	.03098	.68012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	510.46	.00013	.0063	-.00009
Stddev	.00002	.66	.00002	.0129	.00003
%RSD	15.809	.12892	13.837	205.1	28.995

#1	-.00012	510.92	.00014	.0154	-.00011
#2	-.00015	509.99	.00012	-.0028	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00022	1.4500	355.09	.02292
Stddev	.00002	.00021	.0072	.39	.00071
%RSD	4.4493	95.946	.49522	.11069	3.1011

#1	.00051	.00038	1.4550	355.36	.02242
#2	.00054	.00007	1.4449	354.81	.02343

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144111-G-1-A@20 Acquired: 10/31/2018 10:21:23 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2025	.38059	.00039	772.18	.00023
Stddev	.0026	.00063	.00023	.54	.00001
%RSD	.21795	.16483	58.519	.06953	3.2283

#1	1.2006	.38015	.00023	771.80	.00022
#2	1.2043	.38104	.00055	772.56	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00171	3.447	-.00157	-.01556	.37755
Stddev	.00065	.008	.00167	.00128	.00008
%RSD	38.038	.2230	106.04	8.2045	.02019

#1	-.00125	3.441	-.00275	-.01466	.37761
#2	-.00217	3.452	-.00039	-.01646	.37750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	4.2842	-.00085	.00336	.00054
Stddev	.00138	.0080	.00021	.00008	.00002
%RSD	845.57	.18587	25.076	2.4246	4.2423

#1	.00081	4.2785	-.00070	.00342	.00056
#2	-.00114	4.2898	-.00100	.00331	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144111-G-1-A@20 Acquired: 10/31/2018 10:21:23 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00270**
 Stddev .00101
 %RSD 37.279

#1 **.00199**
 #2 **.00341**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2103.6	3557.5	108950.	7317.7
Stddev	1.1	5.7	171.	29.8
%RSD	.05061	.15979	.15730	.40742

#1	2104.4	3561.5	108830.	7296.6
#2	2102.9	3553.5	109070.	7338.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.078%	86.240%	83.393%	92.427%
Range				

Sample Name: 480-144111-G-3-A@20 Acquired: 10/31/2018 10:25:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	.00305	.00110	.01652	.55184
Stddev	.00025	.03593	.00352	.00037	.00205
%RSD	40.873	1177.7	319.80	2.2608	.37134

#1	-.00043	-.02235	.00359	.01626	.55329
#2	-.00078	.02846	-.00139	.01678	.55039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	419.15	.00018	-.0064	-.00008
Stddev	.00003	.80	.00009	.0162	.00039
%RSD	34.619	.19061	47.323	254.4	496.53

#1	-.00007	419.72	.00012	.0051	-.00035
#2	-.00011	418.59	.00025	-.0178	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.00184	3.8547	302.49	.01255
Stddev	.00009	.00026	.0054	1.11	.00072
%RSD	21.321	13.846	.14071	.36777	5.7628

#1	.00050	.00166	3.8586	303.28	.01204
#2	.00037	.00203	3.8509	301.70	.01306

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144111-G-3-A@20 Acquired: 10/31/2018 10:25:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1571	.26194	.00022	620.40	.00075
Stddev	.0062	.00021	.00025	2.87	.00014
%RSD	.53553	.08203	112.36	.46218	18.475

#1	1.1615	.26209	.00004	622.43	.00065
#2	1.1527	.26178	.00039	618.37	.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	.4870	-.00098	-.01172	.32483
Stddev	.00044	.0017	.00175	.00104	.01828
%RSD	51.598	.3475	179.75	8.9067	5.6283

#1	-.00117	.4858	.00026	-.01246	.31190
#2	-.00054	.4882	-.00221	-.01098	.33776

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	3.8678	-.00086	.00039	.00023
Stddev	.00003	.0388	.00005	.00058	.00030
%RSD	142.22	1.0026	5.3742	146.97	133.40

#1	-.00004	3.8952	-.00089	-.00002	.00044
#2	.00000	3.8404	-.00083	.00080	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144111-G-3-A@20 Acquired: 10/31/2018 10:25:33 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00220**
 Stddev .00046
 %RSD 20.867

#1 **.00187**
 #2 **.00252**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2145.2	3591.8	110820.	7377.7
Stddev	1.1	7.4	290.	28.6
%RSD	.04908	.20709	.26148	.38793

#1	2145.9	3597.1	110610.	7357.4
#2	2144.5	3586.6	111020.	7397.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.562%	87.072%	84.825%	93.184%
Range				

Sample Name: blank Acquired: 10/31/2018 10:29:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.01167	.00191	-.00007	-.00001
Stddev	.00000	.00226	.00181	.00008	.00002
%RSD	20.578	19.399	94.894	111.63	156.25

#1	.00001	-.01007	.00319	-.00002	-.00003
#2	.00001	-.01327	.00063	-.00013	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00847	.00010	.0110	.00011
Stddev	.00004	.00328	.00007	.0110	.00009
%RSD	161.95	38.775	73.765	100.2	84.500

#1	.00000	.00615	.00015	.0188	.00004
#2	-.00005	.01079	.00005	.0032	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00001	-.00092	.20352	.00067
Stddev	.00036	.00006	.00006	.05213	.00041
%RSD	2371.7	391.11	6.2124	25.614	62.118

#1	-.00027	.00006	-.00088	.24038	.00037
#2	.00024	-.00003	-.00096	.16666	.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 10:29:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00358	.00003	-.00027	.22850	.00004
Stddev	.00163	.00002	.00003	.01351	.00052
%RSD	45.377	57.453	10.299	5.9134	1427.1

#1	-.00243	.00002	-.00029	.23805	.00040
#2	-.00473	.00004	-.00025	.21894	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.0027	-.00081	.00025	-.06023
Stddev	.00021	.0000	.00076	.00113	.00028
%RSD	328.99	1.342	93.577	449.16	.45809

#1	.00021	-.0028	-.00135	-.00055	-.06042
#2	-.00009	-.0027	-.00027	.00105	-.06003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.00001	-.00002	.00090	-.00032
Stddev	.00004	.00003	.00009	.00138	.00033
%RSD	7.6262	481.73	389.88	153.38	104.36

#1	-.00045	-.00001	.00004	.00187	-.00008
#2	-.00050	.00002	-.00008	-.00008	-.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 10:29:42 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **-.00010**
 Stddev .00043
 %RSD 421.82

#1 .00020
 #2 -.00041

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2757.1	4085.0	128520.	7820.9
Stddev	3.6	.7	693.	10.8
%RSD	.12927	.01593	.53921	.13832

#1	2754.6	4084.5	129010.	7828.5
#2	2759.6	4085.4	128030.	7813.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.401%	99.027%	98.378%	98.782%
Range				

Sample Name: MB 480-442021/1-A Acquired: 10/31/2018 10:33:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.03248	.00181	-.00037	-.00001
Stddev	.00005	.01320	.00152	.00014	.00001
%RSD	77.793	40.644	84.080	37.871	94.793

#1	-.00003	-.02314	.00073	-.00047	-.00000
#2	-.00010	-.04181	.00289	-.00027	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00646	.00003	-.0044	.00007
Stddev	.00003	.00092	.00003	.0203	.00002
%RSD	164.31	14.265	98.279	464.9	25.819

#1	.00004	.00711	.00006	.0100	.00006
#2	-.00000	.00581	.00001	-.0187	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00012	.00019	.07365	.00084
Stddev	.00039	.00005	.00084	.03353	.00074
%RSD	101.71	45.196	450.50	45.521	87.809

#1	.00011	.00015	-.00041	.04995	.00032
#2	.00067	.00008	.00078	.09736	.00137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-442021/1-A Acquired: 10/31/2018 10:33:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00203	.00043	-.00036	.14067	-.00005
Stddev	.00163	.00002	.00009	.00181	.00014
%RSD	80.560	4.0594	24.049	1.2865	267.21

#1	-.00318	.00044	-.00042	.14195	-.00015
#2	-.00087	.00042	-.00030	.13939	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.0005	-.00152	.00083	-.06556
Stddev	.00015	.0034	.00028	.00163	.00324
%RSD	149.01	618.5	18.559	196.18	4.9350

#1	.00021	.0030	-.00132	-.00032	-.06327
#2	-.00001	-.0019	-.00171	.00198	-.06784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	-.00009	-.00010	-.00061	-.00013
Stddev	.00025	.00010	.00023	.00051	.00003
%RSD	39.169	119.05	220.19	83.648	24.179

#1	-.00046	-.00001	-.00027	-.00097	-.00015
#2	-.00081	-.00016	.00006	-.00025	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-442021/1-A Acquired: 10/31/2018 10:33:33 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00199**
 Stddev .00010
 %RSD 4.7865

#1 **.00192**
 #2 **.00206**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2772.9	4132.3	130570.	8016.3
Stddev	4.5	2.6	394.	10.0
%RSD	.16333	.06382	.30139	.12472

#1	2776.1	4130.4	130290.	8023.4
#2	2769.7	4134.1	130850.	8009.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.964%	100.17%	99.944%	101.25%
Range				

Sample Name: LCS 480-442021/2-A Acquired: 10/31/2018 10:37:24 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04862	9.8234	.19590	.19208	.19993
Stddev	.00047	.0726	.00067	.00020	.00015
%RSD	.97119	.73917	.34408	.10297	.07573

#1	.04896	9.8747	.19542	.19194	.20003
#2	.04829	9.7720	.19638	.19222	.19982

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20184	9.6961	.19605	.0066	.18866
Stddev	.00076	.0230	.00038	.0180	.00006
%RSD	.37732	.23754	.19230	270.7	.02921

#1	.20238	9.7124	.19631	-.0061	.18862
#2	.20130	9.6798	.19578	.0194	.18870

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20028	.19147	9.9229	9.4006	.18635
Stddev	.00023	.00056	.0554	.0127	.00012
%RSD	.11527	.29383	.55805	.13557	.06580

#1	.20012	.19187	9.9621	9.3916	.18644
#2	.20045	.19107	9.8838	9.4096	.18626

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-442021/2-A Acquired: 10/31/2018 10:37:24 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.7664	.19808	.19017	9.5868	.19993
Stddev	.0649	.00052	.00041	.0341	.00016
%RSD	.66413	.26493	.21562	.35598	.08173

#1	9.8123	.19845	.19046	9.6109	.19981
#2	9.7205	.19771	.18988	9.5626	.20004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19039	9.416	.19019	.19517	9.3895
Stddev	.00074	.026	.00047	.00235	.0444
%RSD	.38875	.2755	.24831	1.2058	.47312

#1	.19092	9.435	.18985	.19351	9.4209
#2	.18987	9.398	.19052	.19684	9.3581

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19069	.20189	.19313	.19437	.19703
Stddev	.00111	.00078	.00051	.00062	.00025
%RSD	.58056	.38784	.26483	.32017	.12652

#1	.18991	.20244	.19277	.19393	.19721
#2	.19147	.20133	.19349	.19481	.19686

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-442021/2-A Acquired: 10/31/2018 10:37:24 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20375**
 Stddev .00090
 %RSD .44013

#1 **.20439**
 #2 **.20312**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2685.8	4049.4	127210.	7929.8
Stddev	1.6	6.7	574.	30.2
%RSD	.06106	.16481	.45123	.38102

#1	2684.6	4044.7	126810.	7908.5
#2	2686.9	4054.1	127620.	7951.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.854%	98.165%	97.376%	100.16%
Range				

Sample Name: 480-144143-B-5-A Acquired: 10/31/2018 10:41:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.05433	.00090	.00142	.00096
Stddev	.00053	.01650	.00173	.00016	.00001
%RSD	104.15	30.363	192.87	11.305	.73087

#1	-.00013	.04267	.00212	.00153	.00096
#2	-.00088	.06600	-.00033	.00131	.00097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.43331	.00003	-.0272	.00007
Stddev	.00007	.00482	.00003	.0197	.00005
%RSD	84.383	1.1134	104.18	72.60	81.928

#1	-.00003	.42989	.00001	-.0411	.00010
#2	-.00014	.43672	.00005	-.0132	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00099	.00048	.05106	.25145	.00058
Stddev	.00005	.00023	.00146	.02355	.00105
%RSD	5.1917	48.720	2.8662	9.3642	181.48

#1	.00095	.00065	.05003	.26810	-.00016
#2	.00102	.00032	.05210	.23480	.00132

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144143-B-5-A Acquired: 10/31/2018 10:41:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04550	.00120	.00010	.55521	.00095
Stddev	.00106	.00003	.00011	.00262	.00011
%RSD	2.3382	2.3617	107.59	.47227	11.223

#1	.04475	.00118	.00002	.55707	.00088
#2	.04626	.00122	.00018	.55336	.00103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.1030	-.00173	-.00296	.01019
Stddev	.00125	.0017	.00042	.00144	.01203
%RSD	977.18	1.643	24.314	48.537	118.11

#1	-.00076	.1041	-.00203	-.00398	.00168
#2	.00101	.1018	-.00143	-.00195	.01869

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00100	.00038	.00117	-.00013
Stddev	.00037	.00001	.00020	.00042	.00002
%RSD	1516.3	1.4646	53.700	35.805	15.632

#1	.00023	.00099	.00023	.00146	-.00014
#2	-.00028	.00101	.00052	.00087	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144143-B-5-A Acquired: 10/31/2018 10:41:04 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00523**
 Stddev .00006
 %RSD 1.1629

#1 **.00519**
 #2 **.00528**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2756.6	4085.1	129100.	7920.9
Stddev	4.4	6.5	58.	38.8
%RSD	.16115	.15966	.04457	.49045

#1	2759.7	4089.7	129140.	7948.4
#2	2753.5	4080.5	129060.	7893.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.382%	99.030%	98.821%	100.05%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 10:44:57 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50500	24.737	.48384	.46233	.50290	.49461	24.741	.48477
Stddev	.00126	.018	.00040	.00017	.00064	.00223	.128	.00039
%RSD	.24943	.07452	.08296	.03696	.12744	.45156	.51658	.08092
#1	.50411	24.751	.48412	.46221	.50335	.49619	24.831	.48505
#2	.50589	24.724	.48355	.46246	.50244	.49303	24.651	.48449

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0084	.48585	.50915	.50013	25.088	24.632	.48550	24.360
Stddev	.0031	.00027	.00047	.00046	.089	.118	.00101	.023
%RSD	37.40	.05631	.09185	.09238	.35321	.48005	.20867	.09520
#1	-.0062	.48605	.50882	.50046	25.151	24.715	.48621	24.377
#2	-.0106	.48566	.50948	.49980	25.026	24.548	.48478	24.344

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51443	.48963	25.028	.49295	.48085	24.42	.48331	.48551
Stddev	.00043	.00003	.050	.00037	.00194	.00	.00164	.00161
%RSD	.08385	.00521	.19953	.07573	.40404	.0009	.33851	.33087
#1	.51413	.48965	25.064	.49322	.47948	24.42	.48446	.48664
#2	.51474	.48961	24.993	.49269	.48223	24.42	.48215	.48437

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/31/2018 10:44:57 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.457	.49579	.52127	.49539	.48140	.51043	.49050
Stddev	.009	.00004	.00005	.00063	.00112	.00198	.00397
%RSD	.03846	.00858	.00947	.12784	.23340	.38787	.80990

#1	24.464	.49576	.52130	.49494	.48219	.50903	.48769
#2	24.451	.49582	.52123	.49584	.48060	.51183	.49331

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2584.3	3954.1	123970.	7734.8
Stddev	.1	2.0	499.	43.9
%RSD	.00536	.05123	.40267	.56745

#1	2584.2	3952.7	123620.	7703.7
#2	2584.4	3955.6	124330.	7765.8

Sample Name: CCB-4957862 Acquired: 10/31/2018 10:48:40 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	-.00988	-.00145	-.00047	-.00001	-.00007	.00210	.00008
Stddev	.00009	.00775	.00053	.00026	.00001	.00002	.00126	.00007
%RSD	34.556	78.456	36.738	54.541	217.92	31.882	60.059	94.485

#1	-.00019	-.00440	-.00182	-.00066	-.00002	-.00009	.00299	.00013
#2	-.00031	-.01536	-.00107	-.00029	.00000	-.00006	.00121	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085	.00013	.00022	-.00006	.00089	-.00165	.00020	-.00224
Stddev	.0085	.00008	.00013	.00037	.00154	.00993	.00004	.00056
%RSD	101.1	59.898	58.658	605.19	172.91	602.55	20.392	24.853

#1	.0024	.00007	.00032	-.00032	-.00020	-.00867	.00017	-.00185
#2	.0145	.00018	.00013	.00020	.00198	.00537	.00023	-.00263

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00035	.04615	-.00000	.00077	-.0004	-.00136	.00018
Stddev	.00006	.00019	.00222	.00007	.00046	.0007	.00015	.00003
%RSD	88.748	55.369	4.8102	12199.	59.944	180.8	10.691	14.074

#1	.00010	.00021	.04772	-.00005	.00045	-.0008	-.00126	.00020
#2	.00002	.00049	.04458	.00005	.00110	.0001	-.00146	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 10:48:40 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03395	-.00011	-.00010	-.00008	.00088	-.00006	.00078
Stddev	.00967	.00096	.00004	.00013	.00018	.00016	.00045
%RSD	28.484	834.58	45.453	171.80	20.756	265.73	58.132

#1	-.02711	-.00079	-.00013	-.00017	.00101	-.00017	.00110
#2	-.04079	.00056	-.00007	.00002	.00075	.00005	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2771.5	4109.8	129050.	7903.0
Stddev	2.0	.4	176.	6.3
%RSD	.07090	.00958	.13621	.07956

#1	2770.1	4110.1	129180.	7907.5
#2	2772.9	4109.5	128930.	7898.6

Sample Name: CCVL-4970377 Acquired: 10/31/2018 10:52:32 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00607	.20619	.01472	.01902	.00209	.00199	.50716	.00206
Stddev	.00045	.00506	.00021	.00007	.00000	.00006	.00396	.00004
%RSD	7.4178	2.4540	1.4509	.35703	.01094	2.9307	.78157	1.9325
#1	.00575	.20976	.01457	.01897	.00209	.00194	.50436	.00203
#2	.00639	.20261	.01487	.01907	.00209	.00203	.50996	.00209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0186	.00391	.00420	.00969	.05258	.45968	.02814	.20005
Stddev	.0180	.00013	.00029	.00001	.00188	.00995	.00107	.00013
%RSD	97.02	3.4027	6.9486	.13411	3.5693	2.1638	3.7922	.06431
#1	-.0058	.00401	.00399	.00968	.05125	.45264	.02890	.20014
#2	-.0313	.00382	.00440	.00970	.05391	.46671	.02739	.19996

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00313	.00979	.98604	.00978	.01027	.1907	.01836	.02424
Stddev	.00001	.00014	.00657	.00010	.00090	.0012	.00053	.00336
%RSD	.37711	1.4707	.66598	1.0212	8.7494	.6517	2.8989	13.856
#1	.00314	.00990	.99068	.00985	.00963	.1898	.01873	.02662
#2	.00312	.00969	.98140	.00970	.01090	.1916	.01798	.02187

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 10:52:32 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43554	.00872	.00502	.00449	.01978	.00497	.01082
Stddev	.00572	.00046	.00006	.00009	.00020	.00021	.00050
%RSD	1.3129	5.2374	1.2677	2.1140	1.0141	4.2409	4.6679
#1	.43150	.00840	.00507	.00456	.01993	.00482	.01117
#2	.43958	.00905	.00498	.00443	.01964	.00512	.01046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2766.7	4106.7	128680.	7896.3
Stddev	4.4	7.7	53.	39.8
%RSD	.15768	.18797	.04140	.50403
#1	2763.6	4101.3	128710.	7868.2
#2	2769.8	4112.2	128640.	7924.4

Sample Name: 480-144010-A-2-A@5 Acquired: 10/31/2018 10:56:23 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.01008	.00206	.42977	.01991
Stddev	.00005	.02966	.00172	.00159	.00000
%RSD	21.570	294.14	83.576	.37095	.02185

#1	-.00025	.03106	.00084	.43090	.01991
#2	-.00018	-.01089	.00327	.42864	.01992

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	87.289	.00009	-.0239	.00017
Stddev	.00003	.404	.00007	.0110	.00010
%RSD	46.973	.46298	72.890	46.15	59.589

#1	-.00005	87.004	.00004	-.0161	.00025
#2	-.00010	87.575	.00014	-.0317	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00097	.00151	.88118	4.6814	.10900
Stddev	.00009	.00037	.00841	.0431	.00004
%RSD	9.6822	24.639	.95418	.92141	.03969

#1	.00090	.00125	.87524	4.6509	.10897
#2	.00104	.00177	.88713	4.7119	.10903

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144010-A-2-A@5 Acquired: 10/31/2018 10:56:23 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	75.516	.94550	.00021	406.90	.00854
Stddev	.122	.00031	.00017	.81	.00022
%RSD	.16154	.03275	81.397	.19932	2.6263

#1	75.602	.94528	.00034	406.32	.00838
#2	75.429	.94571	.00009	407.47	.00870

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00071	F 284.0	-.00116	-.00497	2.4277
Stddev	.00188	.4	.00009	.00119	.0066
%RSD	265.92	.1271	8.1211	24.005	.27137

#1	-.00062	284.3	-.00110	-.00581	2.4324
#2	.00204	283.7	-.00123	-.00413	2.4230

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	1.7236	.00142	.00006	.00151
Stddev	.00003	.0016	.00004	.00085	.00020
%RSD	4.1675	.09447	2.5509	1429.9	13.130

#1	-.00076	1.7224	.00139	-.00054	.00137
#2	-.00072	1.7247	.00145	.00066	.00165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144010-A-2-A@5 Acquired: 10/31/2018 10:56:23 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00973**
 Stddev .00055
 %RSD 5.6795

#1 **.00934**
 #2 **.01012**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2335.7	3748.3	116800.	7608.1
Stddev	2.3	4.6	91.	24.7
%RSD	.10025	.12184	.07830	.32509

#1	2337.4	3751.5	116870.	7625.6
#2	2334.0	3745.0	116740.	7590.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.361%	90.865%	89.408%	96.095%
Range				

Sample Name: 480-144100-A-4-A@2 Acquired: 10/31/2018 11:00:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	33.147	.00169	.03940	.76421
Stddev	.00022	.083	.00050	.00034	.00223
%RSD	33.183	.25117	29.361	.86416	.29195

#1	-.00051	33.088	.00134	.03916	.76263
#2	-.00082	33.206	.00204	.03964	.76578

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00175	29.855	.00062	.1108	.07729
Stddev	.00003	.058	.00000	.0021	.00003
%RSD	1.8543	.19520	.34177	1.933	.04305

#1	.00173	29.814	.00062	.1123	.07732
#2	.00178	29.896	.00062	.1093	.07727

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.15509	.09504	60.044	16.613	.04192
Stddev	.00035	.00023	.168	.057	.00031
%RSD	.22638	.24043	.28021	.34356	.74946

#1	.15485	.09488	59.925	16.653	.04214
#2	.15534	.09520	60.162	16.572	.04170

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-4-A@2 Acquired: 10/31/2018 11:00:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.365	2.6949	.01400	31.917	.09367
Stddev	.001	.0009	.00012	.020	.00002
%RSD	.00734	.03200	.84440	.06419	.01731

#1	17.364	2.6943	.01392	31.903	.09368
#2	17.366	2.6955	.01408	31.932	.09366

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01353	2.863	-.00100	-.00074	37.134
Stddev	.00039	.006	.00107	.00101	.063
%RSD	2.9168	.2183	107.48	136.62	.16837

#1	.01381	2.867	-.00176	-.00145	37.090
#2	.01325	2.858	-.00024	-.00003	37.178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00183	.17267	2.1642	-.00098	.10498
Stddev	.00006	.00046	.0050	.00067	.00011
%RSD	3.5449	.26709	.23066	68.953	.10500

#1	.00187	.17234	2.1677	-.00050	.10491
#2	.00178	.17299	2.1606	-.00146	.10506

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-4-A@2 Acquired: 10/31/2018 11:00:15 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.25895**
 Stddev .00033
 %RSD .12611

#1 **.25918**
 #2 **.25872**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2567.8	4052.0	127300.	8074.2
Stddev	1.2	2.5	115.	14.7
%RSD	.04679	.06052	.09024	.18172

#1	2568.7	4053.7	127380.	8084.5
#2	2567.0	4050.2	127220.	8063.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.645%	98.226%	97.442%	101.98%
Range				

Sample Name: 143652-4 tot Acquired: 10/31/2018 11:04:03 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	6.7182	.00678	.03883	.16891
Stddev	.00016	.0604	.00010	.00020	.00003
%RSD	41.849	.89970	1.4890	.50986	.01850

#1	-.00050	6.7609	.00686	.03897	.16893
#2	-.00027	6.6754	.00671	.03869	.16889

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	81.440	.00014	-.0039	.00468
Stddev	.00001	.080	.00013	.0071	.00010
%RSD	2.2293	.09862	93.019	184.3	2.0581

#1	.00027	81.383	.00005	-.0089	.00462
#2	.00027	81.496	.00024	.0012	.00475

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00616	.01046	7.4371	4.5467	.00991
Stddev	.00008	.00001	.0256	.0057	.00061
%RSD	1.2838	.12898	.34456	.12480	6.1572

#1	.00611	.01045	7.4553	4.5427	.00948
#2	.00622	.01047	7.4190	4.5507	.01035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143652-4 tot Acquired: 10/31/2018 11:04:03 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.530	.61151	-.00039	25.408	.00706
Stddev	.050	.00212	.00007	.088	.00007
%RSD	.34080	.34587	18.737	.34752	.94827

#1	14.565	.61300	-.00044	25.470	.00711
#2	14.495	.61001	-.00033	25.345	.00701

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01296	29.13	-.00102	-.00151	11.652
Stddev	.00049	.05	.00070	.00108	.065
%RSD	3.7504	.1560	68.993	71.743	.55431

#1	.01262	29.10	-.00151	-.00074	11.698
#2	.01330	29.16	-.00052	-.00227	11.606

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.15140	.13247	.00240	.01032
Stddev	.00003	.00006	.00920	.00036	.00005
%RSD	8.3705	.03872	6.9447	14.837	.43777

#1	-.00043	.15145	.13898	.00265	.01036
#2	-.00039	.15136	.12597	.00215	.01029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143652-4 tot Acquired: 10/31/2018 11:04:03 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03472**
 Stddev .00104
 %RSD 2.9879

#1 **.03545**
 #2 **.03398**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2748.8	4240.8	131370.	8258.5
Stddev	17.7	29.8	32.	22.6
%RSD	.64380	.70384	.02462	.27308

#1	2761.3	4261.9	131390.	8274.5
#2	2736.3	4219.7	131350.	8242.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.104%	102.80%	100.56%	104.31%
Range				

Sample Name: 143652-5 tot Acquired: 10/31/2018 11:07:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	.17399	.01636	.05021	.16580
Stddev	.00002	.00698	.00399	.00048	.00019
%RSD	2.8297	4.0126	24.399	.95839	.11218

#1	-.00063	.16905	.01919	.04987	.16567
#2	-.00065	.17892	.01354	.05055	.16593

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	168.49	.00016	-.0144	.00034
Stddev	.00005	.26	.00006	.0241	.00004
%RSD	219.63	.15304	38.463	166.8	12.014

#1	-.00005	168.67	.00021	.0026	.00031
#2	.00001	168.31	.00012	-.0314	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.02674	7.7642	2.7799	.00818
Stddev	.00019	.00041	.0038	.0150	.00009
%RSD	75.281	1.5467	.04930	.54105	1.1152

#1	.00011	.02704	7.7615	2.7905	.00811
#2	.00038	.02645	7.7669	2.7693	.00824

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143652-5 tot Acquired: 10/31/2018 11:07:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.763	1.8216	-.00024	17.691	.00131
Stddev	.042	.0006	.00017	.057	.00002
%RSD	.13781	.03146	69.829	.32161	1.8375

#1	30.793	1.8212	-.00035	17.651	.00130
#2	30.733	1.8220	-.00012	17.731	.00133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00042	46.77	-.00233	.00117	4.6880
Stddev	.00023	.06	.00043	.00354	.0218
%RSD	55.348	.1208	18.520	304.02	.46429

#1	.00026	46.73	-.00202	.00367	4.7034
#2	.00059	46.81	-.00263	-.00134	4.6727

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.26947	.00059	.00111	.00013
Stddev	.00006	.00095	.00020	.00052	.00007
%RSD	37.515	.35161	33.256	46.973	53.458

#1	-.00012	.26880	.00045	.00074	.00008
#2	-.00022	.27014	.00073	.00148	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143652-5 tot Acquired: 10/31/2018 11:07:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.17060**
Stddev .00029
%RSD .16853

#1 **.17039**
#2 **.17080**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2662.3	4099.9	127990.	8127.1
Stddev	7.2	13.9	153.	27.1
%RSD	.27200	.33914	.11959	.33338

#1	2667.4	4109.7	127880.	8146.2
#2	2657.2	4090.0	128100.	8107.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.016%	99.388%	97.970%	102.65%
Range				

Sample Name: 143780-2 sol Acquired: 10/31/2018 11:11:36 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.07098	.00118	.00764	.01549
Stddev	.00036	.00118	.00113	.00040	.00001
%RSD	160.90	1.6686	95.177	5.2637	.08974

#1	-.00047	.07014	.00039	.00793	.01550
#2	.00003	.07182	.00198	.00736	.01548

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	21.078	-.00006	.0071	.00068
Stddev	.00008	.020	.00005	.0208	.00004
%RSD	89.103	.09701	86.911	293.5	5.9466

#1	-.00015	21.093	-.00002	-.0076	.00071
#2	-.00003	21.064	-.00010	.0218	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00069	.00104	.05540	1.5483	.00079
Stddev	.00003	.00008	.00540	.0040	.00000
%RSD	4.8683	7.2323	9.7533	.26059	.37215

#1	.00067	.00099	.05158	1.5511	.00079
#2	.00071	.00109	.05922	1.5454	.00078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143780-2 sol Acquired: 10/31/2018 11:11:36 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.3420	.00112	-.00010	2.4064	.00057
Stddev	.0035	.00001	.00017	.0154	.00018
%RSD	.04721	1.0732	159.79	.63887	31.554

#1	7.3395	.00112	.00001	2.3955	.00044
#2	7.3444	.00113	-.00022	2.4172	.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	1.039	-.00191	.00010	5.3968
Stddev	.00162	.001	.00036	.00041	.0001
%RSD	231.61	.0776	18.919	407.41	.00221

#1	-.00045	1.039	-.00165	.00039	5.3969
#2	.00184	1.038	-.00216	-.00019	5.3967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00104	.02993	.00341	.00193	.00291
Stddev	.00031	.00003	.00013	.00049	.00001
%RSD	29.917	.08956	3.8624	25.507	.37769

#1	-.00082	.02991	.00331	.00158	.00292
#2	-.00126	.02995	.00350	.00227	.00290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143780-2 sol Acquired: 10/31/2018 11:11:36 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00663**
 Stddev .00012
 %RSD 1.8736

#1 **.00672**
 #2 **.00654**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2872.6	4305.9	133030.	8304.4
Stddev	12.6	25.6	351.	38.3
%RSD	.43732	.59409	.26379	.46145

#1	2881.5	4324.0	133280.	8331.5
#2	2863.7	4287.9	132780.	8277.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.52%	104.38%	101.83%	104.89%
Range				

Sample Name: 143538-12 tot Acquired: 10/31/2018 11:15:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.00384	.00071	.02287	.06938
Stddev	.00008	.00216	.00019	.00050	.00016
%RSD	31.314	56.153	26.760	2.1928	.23004

#1	-.00019	.00537	.00057	.02251	.06949
#2	-.00030	.00232	.00084	.02322	.06927

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	99.990	.00008	-.0088	-.00003
Stddev	.00001	.470	.00004	.0016	.00012
%RSD	17.648	.47023	57.681	18.14	416.70

#1	-.00004	100.32	.00005	-.0077	.00005
#2	-.00006	99.658	.00011	-.0100	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.00019	.00540	3.6393	.01490
Stddev	.00009	.00052	.00186	.0240	.00082
%RSD	11.533	274.80	34.382	.65968	5.4884

#1	.00083	-.00018	.00672	3.6562	.01548
#2	.00071	.00056	.00409	3.6223	.01432

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-12 tot Acquired: 10/31/2018 11:15:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	21.324	-.00008	.00036	29.835	.00044
Stddev	.081	.00002	.00001	.114	.00021
%RSD	.37905	22.808	2.5778	.38139	47.840

#1	21.381	-.00007	.00037	29.916	.00029
#2	21.267	-.00010	.00035	29.755	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	19.92	-.00315	-.00207	6.4628
Stddev	.00040	.05	.00122	.00287	.0516
%RSD	163.56	.2302	38.608	138.30	.79857

#1	-.00004	19.89	-.00229	-.00005	6.4993
#2	.00053	19.95	-.00401	-.00410	6.4263

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.13068	-.00062	.00215	-.00003
Stddev	.00034	.00037	.00030	.00049	.00007
%RSD	77.867	.28112	48.654	22.848	227.84

#1	-.00019	.13094	-.00083	.00249	-.00008
#2	-.00067	.13042	-.00041	.00180	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-12 tot Acquired: 10/31/2018 11:15:25 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00079**
 Stddev .00025
 %RSD 31.911

#1 **.00061**
 #2 **.00097**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2693.6	4137.2	128900.	8146.3
Stddev	6.8	12.8	98.	37.2
%RSD	.25328	.30889	.07617	.45646

#1	2698.5	4146.3	128970.	8120.0
#2	2688.8	4128.2	128840.	8172.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.135%	100.29%	98.670%	102.89%
Range				

Sample Name: 143538-13 tot Acquired: 10/31/2018 11:19:13 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.15416	.00150	.01765	.04574
Stddev	.00047	.00456	.00112	.00042	.00000
%RSD	85.197	2.9604	74.883	2.3980	.00606

#1	-.00022	.15739	.00229	.01795	.04573
#2	-.00089	.15093	.00071	.01735	.04574

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	136.45	.00010	-.0069	.00004
Stddev	.00003	.57	.00005	.0039	.00008
%RSD	51.176	.42061	50.359	56.43	205.24

#1	-.00004	136.86	.00014	-.0096	.00010
#2	-.00009	136.04	.00007	-.0041	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00135	.90565	2.0371	.01169
Stddev	.00031	.00040	.01117	.0237	.00071
%RSD	93.270	29.578	1.2330	1.1650	6.1032

#1	.00055	.00106	.91355	2.0539	.01220
#2	.00011	.00163	.89775	2.0203	.01119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-13 tot Acquired: 10/31/2018 11:19:13 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	27.681	.33240	-.00016	13.309	.00080
Stddev	.022	.00005	.00010	.048	.00002
%RSD	.07976	.01485	64.550	.36072	2.8134

#1	27.697	.33236	-.00009	13.343	.00078
#2	27.665	.33243	-.00023	13.275	.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	58.81	-.00142	-.00153	7.0925
Stddev	.00026	.09	.00137	.00164	.0641
%RSD	43.361	.1600	96.989	107.14	.90375

#1	-.00042	58.75	-.00239	-.00037	7.1378
#2	-.00080	58.88	-.00045	-.00268	7.0472

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.16475	.00110	.00269	.00021
Stddev	.00058	.00083	.00005	.00174	.00031
%RSD	457.81	.50197	4.8145	64.649	147.77

#1	-.00054	.16533	.00114	.00392	.00042
#2	.00028	.16416	.00106	.00146	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-13 tot Acquired: 10/31/2018 11:19:13 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00522**
 Stddev .00006
 %RSD 1.2251

#1 **.00526**
 #2 **.00517**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2678.6	4115.7	128460.	8144.8
Stddev	8.0	10.7	155.	10.4
%RSD	.30022	.26057	.12042	.12744

#1	2684.3	4123.3	128570.	8137.4
#2	2673.0	4108.1	128350.	8152.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.600%	99.771%	98.327%	102.87%
Range				

Sample Name: 143538-14 tot Acquired: 10/31/2018 11:23:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00403	.00110	.02448	.09216
Stddev	.00004	.02655	.00277	.00031	.00004
%RSD	138.14	659.53	252.34	1.2495	.03972

#1	.00006	.02280	.00306	.02470	.09213
#2	.00000	-.01475	-.00086	.02427	.09218

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	99.372	-.00004	-.0008	.00006
Stddev	.00012	.091	.00002	.0058	.00001
%RSD	91.715	.09114	41.012	760.4	10.319

#1	-.00005	99.436	-.00006	-.0049	.00005
#2	-.00021	99.308	-.00003	.0034	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00006	.03734	3.2769	.00138
Stddev	.00004	.00022	.00740	.0321	.00055
%RSD	22.370	384.43	19.826	.97798	39.608

#1	.00019	.00021	.04258	3.2543	.00099
#2	.00014	-.00010	.03211	3.2996	.00177

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-14 tot Acquired: 10/31/2018 11:23:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	13.831	.00246	.00012	9.8142	.00079
Stddev	.007	.00009	.00003	.0276	.00039
%RSD	.04847	3.7364	21.109	.28085	48.563

#1	13.836	.00240	.00011	9.7947	.00107
#2	13.826	.00253	.00014	9.8337	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00074	11.66	-.00286	-.00004	2.4083
Stddev	.00070	.02	.00197	.00033	.0040
%RSD	93.841	.1734	68.763	821.75	.16461

#1	.00123	11.64	-.00425	.00019	2.4054
#2	.00025	11.67	-.00147	-.00028	2.4111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00130	.27648	-.00024	.00231	-.00002
Stddev	.00025	.00071	.00012	.00083	.00009
%RSD	19.119	.25834	47.823	35.837	400.54

#1	-.00147	.27597	-.00016	.00289	.00004
#2	-.00112	.27698	-.00033	.00172	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-14 tot Acquired: 10/31/2018 11:23:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00190**
Stddev .00011
%RSD 5.6417

#1 **.00198**
#2 **.00182**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2725.1	4156.6	128800.	8152.2
Stddev	7.6	10.7	236.	28.3
%RSD	.27813	.25737	.18320	.34717

#1	2730.4	4164.1	128640.	8172.2
#2	2719.7	4149.0	128970.	8132.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.256%	100.76%	98.594%	102.97%
Range				

Sample Name: 143538-15 tot Acquired: 10/31/2018 11:26:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.34000	.00406	.01984	.09109
Stddev	.00025	.01195	.00027	.00052	.00004
%RSD	93.242	3.5137	6.7053	2.6442	.04251

#1	-.00044	.33155	.00426	.01947	.09112
#2	-.00009	.34845	.00387	.02021	.09106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	163.39	.00014	.0057	.00342
Stddev	.00008	.06	.00002	.0166	.00023
%RSD	520.59	.03403	16.097	290.5	6.6818

#1	-.00008	163.43	.00012	.0175	.00326
#2	.00004	163.35	.00016	-.0060	.00358

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00158	.52668	1.7154	.01178
Stddev	.00008	.00001	.01085	.0230	.00032
%RSD	13.000	.81214	2.0596	1.3397	2.7544

#1	.00054	.00158	.53435	1.7317	.01155
#2	.00065	.00157	.51901	1.6992	.01201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-15 tot Acquired: 10/31/2018 11:26:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	32.992	.15996	-.00041	23.268	.00192
Stddev	.037	.00024	.00006	.060	.00006
%RSD	.11122	.14768	14.754	.25681	3.0416

#1	32.966	.15979	-.00045	23.310	.00197
#2	33.018	.16012	-.00037	23.226	.00188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00106	50.83	-.00200	-.00229	7.2317
Stddev	.00176	.04	.00100	.00030	.0561
%RSD	165.82	.0778	49.862	13.257	.77540

#1	.00231	50.80	-.00129	-.00251	7.1920
#2	-.00018	50.86	-.00270	-.00208	7.2713

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	.15020	.00408	.00211	.00047
Stddev	.00010	.00026	.00048	.00071	.00004
%RSD	14.072	.17304	11.708	33.774	9.2195

#1	-.00081	.15038	.00374	.00161	.00050
#2	-.00067	.15002	.00441	.00262	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-15 tot Acquired: 10/31/2018 11:26:50 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00697**
 Stddev .00064
 %RSD 9.1875

#1 **.00652**
 #2 **.00743**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2638.2	4057.6	127820.	8089.1
Stddev	6.8	13.5	209.	3.1
%RSD	.25807	.33260	.16342	.03804

#1	2643.0	4067.1	127970.	8091.3
#2	2633.4	4048.0	127680.	8087.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.157%	98.363%	97.842%	102.17%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 11:30:39 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50284	24.762	.48266	.46224	.50508	.49500	24.604	.48311
Stddev	.00200	.024	.00004	.00101	.00304	.00024	.037	.00105
%RSD	.39680	.09702	.00832	.21955	.60280	.04749	.15107	.21753

#1	.50425	24.745	.48263	.46152	.50723	.49483	24.631	.48236
#2	.50143	24.779	.48269	.46296	.50293	.49516	24.578	.48385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0133	.48523	.50729	.50215	25.064	24.637	.48571	24.322
Stddev	.0052	.00023	.00121	.00075	.005	.099	.00145	.051
%RSD	39.30	.04714	.23824	.14975	.02057	.40048	.29884	.21144

#1	-.0171	.48539	.50814	.50268	25.060	24.706	.48674	24.358
#2	-.0096	.48507	.50643	.50161	25.067	24.567	.48468	24.286

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51515	.48747	25.108	.49443	.48075	24.29	.48244	.48642
Stddev	.00108	.00087	.003	.00037	.00178	.05	.00135	.00016
%RSD	.20876	.17893	.01217	.07424	.37058	.1966	.27920	.03195

#1	.51591	.48685	25.106	.49417	.47949	24.25	.48148	.48653
#2	.51439	.48809	25.110	.49469	.48201	24.32	.48339	.48631

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/31/2018 11:30:39 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.373	.49618	.52331	.49623	.48311	.51157	.48422
Stddev	.014	.00045	.00133	.00054	.00247	.00114	.00065
%RSD	.05663	.09080	.25355	.10981	.51062	.22214	.13441

#1	24.363	.49650	.52425	.49662	.48137	.51237	.48376
#2	24.383	.49587	.52237	.49585	.48485	.51077	.48468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2573.5	3949.1	123050.	7699.4
Stddev	.7	8.0	464.	14.7
%RSD	.02554	.20300	.37716	.19098

#1	2573.9	3954.7	122720.	7689.1
#2	2573.0	3943.4	123380.	7709.8

Sample Name: CCB-4957862 Acquired: 10/31/2018 11:34:22 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	-.00957	-.00022	-.00046	-.00000	-.00002	.00503	.00005
Stddev	.00028	.02225	.00517	.00038	.00003	.00004	.00116	.00003
%RSD	74.508	232.48	2316.1	81.352	743.44	215.52	23.154	65.664

#1	-.00058	.00616	.00343	-.00020	.00002	.00001	.00421	.00007
#2	-.00018	-.02530	-.00388	-.00073	-.00002	-.00005	.00585	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0058	.00010	.00016	-.00052	.00073	-.01323	.00041	-.00340
Stddev	.0044	.00009	.00043	.00005	.00034	.01523	.00004	.00196
%RSD	76.52	87.752	262.01	8.9721	46.137	115.06	9.4540	57.644

#1	-.0027	.00004	.00046	-.00049	.00049	-.02400	.00044	-.00479
#2	-.0089	.00016	-.00014	-.00056	.00097	-.00247	.00038	-.00202

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00018	.03643	-.00003	-.00037	.0090	-.00185	-.00108
Stddev	.00002	.00014	.01185	.00000	.00017	.0043	.00150	.00133
%RSD	22.415	77.040	32.530	1.3030	46.331	47.89	81.067	122.92

#1	.00010	.00008	.02805	-.00003	-.00049	.0121	-.00079	-.00202
#2	.00007	.00028	.04481	-.00003	-.00025	.0060	-.00292	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 11:34:22 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04281	-.00033	-.00004	-.00010	-.00006	-.00030	.00096
Stddev	.00923	.00047	.00004	.00022	.00007	.00027	.00096
%RSD	21.558	139.90	117.77	228.31	117.70	89.196	100.30

#1	-.04933	-.00066	-.00001	-.00025	-.00001	-.00011	.00164
#2	-.03628	-.00000	-.00007	.00006	-.00010	-.00049	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2752.8	4102.8	127590.	7833.7
Stddev	4.3	3.7	115.	20.0
%RSD	.15559	.08953	.09008	.25554

#1	2749.8	4100.2	127500.	7819.5
#2	2755.8	4105.4	127670.	7847.8

Sample Name: CCVL-4970377 Acquired: 10/31/2018 11:38:15 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00589	.17657	.01548	.01858	.00208	.00204	.50209	.00195
Stddev	.00010	.00500	.00079	.00014	.00000	.00001	.00132	.00004
%RSD	1.7460	2.8293	5.0905	.72791	.04109	.37725	.26221	1.9763

#1	.00597	.17303	.01492	.01849	.00208	.00203	.50302	.00197
#2	.00582	.18010	.01603	.01868	.00208	.00205	.50116	.00192

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0184	.00394	.00413	.00927	.05185	.41854	.02803	.19863
Stddev	.0403	.00016	.00001	.00013	.00243	.02087	.00007	.00121
%RSD	219.4	4.1582	.27493	1.3553	4.6890	4.9863	.23946	.60708

#1	.0101	.00382	.00414	.00918	.05013	.43329	.02798	.19778
#2	-.0469	.00405	.00413	.00936	.05356	.40378	.02808	.19949

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00307	.00916	.98829	.00999	.00999	.1962	.01632	.02293
Stddev	.00007	.00002	.00765	.00018	.00016	.0011	.00028	.00164
%RSD	2.2927	.16734	.77418	1.8139	1.6354	.5556	1.7056	7.1617

#1	.00302	.00915	.98288	.00986	.01010	.1970	.01652	.02409
#2	.00312	.00917	.99370	.01012	.00987	.1954	.01613	.02176

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 11:38:15 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45459	.00893	.00511	.00451	.01907	.00454	.00991
Stddev	.00772	.00061	.00009	.00019	.00130	.00003	.00039
%RSD	1.6974	6.8617	1.8078	4.2387	6.8089	.67529	3.9532

#1	.44913	.00937	.00505	.00464	.01999	.00456	.01018
#2	.46005	.00850	.00518	.00437	.01815	.00452	.00963

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2751.1	4117.9	128000.	7871.0
Stddev	1.7	.3	163.	9.4
%RSD	.06195	.00634	.12745	.11984

#1	2752.3	4117.7	128120.	7864.3
#2	2749.9	4118.1	127890.	7877.6

Sample Name: 143538-16 tot Acquired: 10/31/2018 11:42:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	8.2233	.00374	.04954	.12884
Stddev	.00017	.0666	.00065	.00030	.00043
%RSD	60.839	.81029	17.342	.60029	.33196

#1	-.00016	8.2704	.00328	.04933	.12915
#2	-.00040	8.1762	.00419	.04975	.12854

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	108.56	.00004	-.0074	.00458
Stddev	.00001	.20	.00004	.0073	.00011
%RSD	6.2180	.18654	81.474	98.24	2.5025

#1	.00025	108.70	.00002	-.0125	.00466
#2	.00023	108.41	.00007	-.0023	.00450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00904	.00811	8.7848	5.6964	.01809
Stddev	.00011	.00064	.0384	.0184	.00010
%RSD	1.1723	7.9444	.43683	.32350	.55511

#1	.00897	.00766	8.8119	5.7094	.01816
#2	.00912	.00857	8.7576	5.6833	.01802

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-16 tot Acquired: 10/31/2018 11:42:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.206	.44016	-.00028	14.298	.00863
Stddev	.042	.00111	.00003	.061	.00014
%RSD	.16073	.25179	10.003	.42390	1.6284

#1	26.236	.44094	-.00026	14.340	.00873
#2	26.176	.43938	-.00030	14.255	.00853

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00602	54.69	-.00240	-.00406	15.760
Stddev	.00129	.12	.00017	.00456	.055
%RSD	21.427	.2121	7.2640	112.25	.34588

#1	.00511	54.61	-.00252	-.00084	15.721
#2	.00694	54.77	-.00227	-.00728	15.798

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	.29787	.23494	.00360	.01231
Stddev	.00050	.00179	.00157	.00168	.00006
%RSD	78.534	.60018	.66791	46.823	.47636

#1	-.00028	.29913	.23384	.00241	.01235
#2	-.00099	.29660	.23605	.00479	.01226

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-16 tot Acquired: 10/31/2018 11:42:06 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02817**
 Stddev .00039
 %RSD 1.3775

#1 **.02844**
 #2 **.02789**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2703.7	4170.3	130280.	8194.0
Stddev	9.3	19.4	129.	26.7
%RSD	.34476	.46464	.09881	.32604

#1	2710.3	4184.0	130370.	8212.9
#2	2697.1	4156.6	130190.	8175.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.494%	101.10%	99.724%	103.49%
Range				

Sample Name: 143538-17 tot Acquired: 10/31/2018 11:45:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.40160	.00129	.04475	.04053
Stddev	.00031	.01788	.00265	.00018	.00013
%RSD	281.25	4.4516	206.16	.41142	.32743

#1	-.00033	.41425	.00316	.04462	.04044
#2	.00011	.38896	-.00059	.04488	.04063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	54.289	.00005	-.0151	.00005
Stddev	.00001	.019	.00005	.0085	.00022
%RSD	28.104	.03447	102.07	56.51	459.51

#1	-.00006	54.302	.00001	-.0211	-.00011
#2	-.00004	54.275	.00008	-.0091	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00065	-.00043	.24621	1.2505	.00857
Stddev	.00025	.00014	.00703	.0231	.00101
%RSD	38.069	33.631	2.8539	1.8484	11.778

#1	.00082	-.00053	.25118	1.2668	.00928
#2	.00047	-.00033	.24124	1.2341	.00785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-17 tot Acquired: 10/31/2018 11:45:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.539	.02862	-.00030	34.302	.00035
Stddev	.033	.00009	.00010	.094	.00036
%RSD	.22473	.32425	31.275	.27402	104.01

#1	14.516	.02855	-.00024	34.235	.00061
#2	14.562	.02868	-.00037	34.368	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	13.27	-.00270	-.00290	4.9038
Stddev	.00032	.05	.00018	.00109	.0030
%RSD	157.44	.3866	6.6422	37.519	.06038

#1	-.00002	13.30	-.00257	-.00367	4.9059
#2	.00043	13.23	-.00282	-.00213	4.9017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	.08958	.01295	.00182	.00059
Stddev	.00073	.00041	.00059	.00100	.00012
%RSD	115.00	.45481	4.5773	55.212	20.670

#1	-.00114	.08930	.01337	.00111	.00050
#2	-.00012	.08987	.01253	.00253	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-17 tot Acquired: 10/31/2018 11:45:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00123**
Stddev .00054
%RSD 43.947

#1 **.00085**
#2 **.00162**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.3	4189.6	130150.	8176.6
Stddev	14.8	12.1	531.	48.2
%RSD	.53948	.28996	.40783	.59007

#1	2753.8	4198.2	130530.	8210.7
#2	2732.8	4181.0	129780.	8142.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.908%	101.56%	99.624%	103.28%
Range				

Sample Name: 143538-18 tot Acquired: 10/31/2018 11:49:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	2.2032	.00360	.11033	.12446
Stddev	.00048	.0020	.00073	.00019	.00029
%RSD	192.33	.08931	20.238	.16805	.22908

#1	.00009	2.2046	.00412	.11020	.12426
#2	-.00059	2.2018	.00309	.11046	.12467

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	40.387	.00004	.0238	.00043
Stddev	.00008	.047	.00015	.0103	.00002
%RSD	41.293	.11667	344.57	43.10	4.1471

#1	.00014	40.421	.00015	.0166	.00044
#2	.00026	40.354	-.00006	.0311	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00162	1.3574	3.4202	.00846
Stddev	.00025	.00001	.0206	.0338	.00010
%RSD	109.60	.35492	1.5175	.98782	1.1613

#1	.00041	.00162	1.3719	3.3963	.00839
#2	.00005	.00163	1.3428	3.4441	.00853

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-18 tot Acquired: 10/31/2018 11:49:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.837	.10580	.00092	45.618	.00136
Stddev	.012	.00029	.00000	.047	.00005
%RSD	.09005	.27075	.21757	.10284	3.7781

#1	12.845	.10600	.00092	45.585	.00139
#2	12.829	.10560	.00092	45.651	.00132

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00833	7.404	-.00409	-.00051	10.089
Stddev	.00208	.018	.00050	.00099	.055
%RSD	25.003	.2469	12.222	194.60	.54608

#1	.00980	7.391	-.00373	-.00120	10.128
#2	.00686	7.417	-.00444	.00019	10.050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.37314	.02090	.00189	.00058
Stddev	.00027	.00022	.00132	.00012	.00024
%RSD	33.186	.05962	6.2942	6.5975	41.759

#1	-.00100	.37299	.02183	.00198	.00075
#2	-.00062	.37330	.01997	.00180	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-18 tot Acquired: 10/31/2018 11:49:41 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01655**
 Stddev .00036
 %RSD 2.1607

#1 **.01681**
 #2 **.01630**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2733.0	4206.8	129350.	8184.5
Stddev	11.8	16.9	195.	12.8
%RSD	.43303	.40133	.15099	.15688

#1	2741.4	4218.8	129480.	8193.6
#2	2724.6	4194.9	129210.	8175.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.540%	101.98%	99.008%	103.38%
Range				

Sample Name: 143538-1 tot Acquired: 10/31/2018 11:53:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	.25394	.00279	.01945	.09437
Stddev	.00007	.00406	.00170	.00006	.00024
%RSD	11.754	1.5985	60.833	.31704	.25019

#1	-.00052	.25682	.00159	.01949	.09420
#2	-.00062	.25107	.00399	.01941	.09453

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	163.76	.00000	.0068	.00328
Stddev	.00001	.55	.00013	.0410	.00007
%RSD	22.748	.33578	11027.	598.6	2.2665

#1	-.00006	163.37	-.00009	.0358	.00323
#2	-.00004	164.15	.00009	-.0221	.00333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.00180	.47588	1.5649	.01185
Stddev	.00013	.00024	.01056	.0249	.00085
%RSD	22.301	13.397	2.2193	1.5893	7.1326

#1	.00048	.00163	.48335	1.5473	.01125
#2	.00067	.00197	.46841	1.5825	.01245

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-1 tot Acquired: 10/31/2018 11:53:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	33.198	.15996	-.00021	23.420	.00228
Stddev	.006	.00010	.00029	.022	.00012
%RSD	.01772	.06491	136.78	.09383	5.0842

#1	33.202	.15989	-.00041	23.405	.00236
#2	33.193	.16003	-.00001	23.436	.00220

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00086	50.84	-.00209	-.00199	7.1419
Stddev	.00129	.06	.00192	.00072	.0140
%RSD	149.11	.1232	92.082	35.980	.19574

#1	.00178	50.79	-.00344	-.00148	7.1320
#2	-.00005	50.88	-.00073	-.00250	7.1518

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00095	.15217	.00277	.00237	.00019
Stddev	.00103	.00054	.00160	.00034	.00005
%RSD	108.07	.35774	57.603	14.562	24.487

#1	-.00167	.15179	.00390	.00212	.00016
#2	-.00022	.15256	.00164	.00261	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-1 tot Acquired: 10/31/2018 11:53:28 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00664**
 Stddev .00044
 %RSD 6.6792

#1 **.00633**
 #2 **.00696**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2637.9	4073.7	127200.	8044.1
Stddev	6.7	14.9	682.	22.7
%RSD	.25216	.36525	.53656	.28235

#1	2642.6	4084.2	127680.	8060.1
#2	2633.2	4063.2	126710.	8028.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.146%	98.754%	97.362%	101.60%
Range				

Sample Name: 143583-3 tot Acquired: 10/31/2018 11:57:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.06759	.00229	.01996	.21256
Stddev	.00024	.02738	.00217	.00014	.00044
%RSD	159.79	40.500	94.596	.69699	.20601

#1	.00002	.04824	.00382	.02006	.21225
#2	-.00032	.08695	.00076	.01986	.21287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	101.92	-.00005	-.0235	-.00007
Stddev	.00000	.43	.00014	.0118	.00002
%RSD	.64103	.42429	276.79	50.23	25.692

#1	-.00006	102.22	-.00015	-.0318	-.00006
#2	-.00006	101.61	.00005	-.0151	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00068	.06616	1.4167	.00962
Stddev	.00039	.00001	.00380	.0216	.00071
%RSD	377.29	1.9238	5.7506	1.5226	7.3838

#1	-.00017	.00069	.06885	1.4014	.01012
#2	.00038	.00067	.06347	1.4319	.00912

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143583-3 tot Acquired: 10/31/2018 11:57:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.137	.00193	-.00028	23.101	.00022
Stddev	.027	.00003	.00021	.068	.00035
%RSD	.14813	1.3407	76.089	.29300	162.05

#1	18.156	.00194	-.00013	23.053	.00047
#2	18.118	.00191	-.00043	23.149	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	6.851	-.00142	-.00188	5.3204
Stddev	.00028	.025	.00024	.00025	.0190
%RSD	189.56	.3690	17.128	13.107	.35764

#1	-.00035	6.833	-.00160	-.00171	5.3339
#2	.00005	6.869	-.00125	-.00206	5.3069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	.18964	.00112	.00241	.00001
Stddev	.00004	.00059	.00036	.00054	.00006
%RSD	3.8760	.31089	31.741	22.337	403.22

#1	-.00096	.18922	.00087	.00280	.00005
#2	-.00102	.19006	.00137	.00203	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143583-3 tot Acquired: 10/31/2018 11:57:16 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00182**
 Stddev .00079
 %RSD 43.280

#1 **.00237**
 #2 **.00126**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2693.6	4125.1	128430.	8098.4
Stddev	10.9	22.2	152.	9.6
%RSD	.40474	.53719	.11848	.11823

#1	2701.3	4140.7	128540.	8105.2
#2	2685.9	4109.4	128330.	8091.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.134%	99.999%	98.310%	102.29%
Range				

Sample Name: 143538-4 tot Acquired: 10/31/2018 12:01:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	.44597	.00385	.11135	.14885
Stddev	.00034	.00366	.00127	.00003	.00020
%RSD	85.441	.82160	32.898	.02851	.13367

#1	-.00064	.44338	.00475	.11133	.14871
#2	-.00016	.44856	.00296	.11137	.14899

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	36.717	.00007	.0072	.00019
Stddev	.00004	.188	.00002	.0030	.00013
%RSD	36.982	.51069	28.598	41.82	68.335

#1	-.00015	36.850	.00006	.0093	.00029
#2	-.00009	36.585	.00009	.0051	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00087	.00535	.61565	4.6126	.01685
Stddev	.00007	.00000	.02120	.0416	.00006
%RSD	8.3105	.08501	3.4427	.90246	.35205

#1	.00082	.00536	.63064	4.6421	.01680
#2	.00092	.00535	.60067	4.5832	.01689

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-4 tot Acquired: 10/31/2018 12:01:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.785	.05019	.00214	19.482	.00119
Stddev	.027	.00013	.00014	.114	.00047
%RSD	.10504	.25689	6.6760	.58706	39.518

#1	25.804	.05010	.00224	19.563	.00086
#2	25.766	.05028	.00204	19.401	.00152

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	6.470	-.00298	-.00094	9.6894
Stddev	.00008	.000	.00074	.00106	.1044
%RSD	14.624	.0011	24.940	112.99	1.0775

#1	.00048	6.470	-.00245	-.00019	9.7632
#2	.00059	6.470	-.00351	-.00169	9.6156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00160	.55198	.01404	.00122	.00006
Stddev	.00022	.00226	.00315	.00040	.00028
%RSD	13.763	.40925	22.463	32.960	463.92

#1	-.00144	.55357	.01181	.00094	-.00014
#2	-.00176	.55038	.01627	.00151	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-4 tot Acquired: 10/31/2018 12:01:04 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00901**
 Stddev .00136
 %RSD 15.126

#1 **.00997**
 #2 **.00805**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2753.6	4189.9	130510.	8222.4
Stddev	8.9	10.6	1077.	32.4
%RSD	.32228	.25292	.82490	.39416

#1	2759.8	4197.4	131270.	8199.5
#2	2747.3	4182.4	129740.	8245.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.274%	101.57%	99.896%	103.85%
Range				

Sample Name: 143583-5 tot Acquired: 10/31/2018 12:04:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.11134	.00044	.05877	.13265
Stddev	.00018	.00288	.00161	.00000	.00036
%RSD	50.184	2.5894	365.77	.00272	.27346

#1	-.00048	.10930	.00157	.05877	.13290
#2	-.00023	.11338	-.00070	.05877	.13239

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	163.88	.00009	.0150	.00015
Stddev	.00004	.60	.00010	.0348	.00002
%RSD	92.700	.36718	112.23	231.6	15.109

#1	-.00007	164.30	.00002	-.0096	.00013
#2	-.00001	163.45	.00016	.0397	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00592	.13309	3.9401	.00740
Stddev	.00014	.00018	.00398	.0078	.00131
%RSD	1405.7	3.0972	2.9905	.19781	17.650

#1	.00009	.00579	.13591	3.9346	.00648
#2	-.00011	.00605	.13028	3.9457	.00832

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143583-5 tot Acquired: 10/31/2018 12:04:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	21.380	.09069	-.00011	4.2233	.00072
Stddev	.063	.00028	.00013	.0265	.00030
%RSD	.29475	.31307	115.87	.62829	40.964

#1	21.425	.09089	-.00002	4.2421	.00051
#2	21.336	.09049	-.00020	4.2046	.00093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00383	25.93	-.00265	-.00159	6.3501
Stddev	.00008	.04	.00037	.00181	.0123
%RSD	1.9732	.1729	13.849	114.17	.19415

#1	.00389	25.89	-.00291	-.00287	6.3588
#2	.00378	25.96	-.00239	-.00031	6.3414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.28240	.00115	.00238	.00002
Stddev	.00055	.00104	.00023	.00060	.00022
%RSD	231.94	.36835	20.227	25.236	880.30

#1	.00063	.28314	.00099	.00280	-.00013
#2	-.00015	.28167	.00132	.00195	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143583-5 tot Acquired: 10/31/2018 12:04:51 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01292**
 Stddev .00080
 %RSD 6.1629

#1 **.01236**
 #2 **.01348**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.5	4064.8	127200.	8072.7
Stddev	6.6	10.8	61.	10.7
%RSD	.24862	.26572	.04831	.13308

#1	2672.2	4072.4	127150.	8065.1
#2	2662.8	4057.1	127240.	8080.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.201%	98.536%	97.363%	101.96%
Range				

Sample Name: 143538-6 tot Acquired: 10/31/2018 12:08:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.15251	.00218	.02290	.14565
Stddev	.00013	.00972	.00098	.00067	.00012
%RSD	36.208	6.3760	45.145	2.9249	.07955

#1	-.00026	.14563	.00148	.02242	.14574
#2	-.00044	.15938	.00288	.02337	.14557

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	87.404	.00001	-.0092	.00013
Stddev	.00001	.258	.00004	.0235	.00016
%RSD	8.7277	.29533	305.41	255.4	125.79

#1	-.00007	87.587	.00005	-.0258	.00001
#2	-.00006	87.222	-.00002	.0074	.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00059	.21418	1.8579	.01444
Stddev	.00021	.00035	.00125	.0186	.00039
%RSD	344.70	58.883	.58448	1.0002	2.7127

#1	.00009	-.00084	.21506	1.8710	.01471
#2	-.00021	-.00035	.21329	1.8447	.01416

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-6 tot Acquired: 10/31/2018 12:08:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.432	.36679	-.00012	5.7769	.00060
Stddev	.016	.00025	.00001	.0063	.00010
%RSD	.08492	.06813	8.8284	.10998	16.205

#1	18.421	.36661	-.00013	5.7813	.00053
#2	18.443	.36696	-.00012	5.7724	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00075	23.27	-.00182	-.00576	5.4125
Stddev	.00073	.02	.00088	.00127	.0405
%RSD	97.382	.0925	48.282	22.072	.74817

#1	.00023	23.25	-.00120	-.00666	5.4411
#2	.00127	23.28	-.00245	-.00486	5.3838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	.15990	.00207	.00245	-.00017
Stddev	.00025	.00027	.00003	.00078	.00028
%RSD	38.903	.17174	1.2249	31.827	163.03

#1	-.00082	.16009	.00205	.00190	-.00037
#2	-.00047	.15970	.00209	.00300	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143538-6 tot Acquired: 10/31/2018 12:08:39 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00065**
 Stddev .00042
 %RSD 64.489

#1 **.00094**
 #2 **.00035**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2732.5	4124.7	128640.	8105.0
Stddev	8.8	13.2	18.	31.6
%RSD	.32158	.32019	.01394	.39016

#1	2738.7	4134.1	128660.	8127.4
#2	2726.2	4115.4	128630.	8082.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.521%	99.990%	98.469%	102.37%
Range				

Sample Name: 143535-7 tot Acquired: 10/31/2018 12:12:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	1.8816	.00128	.12355	.16327
Stddev	.00016	.0130	.00126	.00054	.00047
%RSD	58.555	.69007	98.837	.43314	.28990

#1	-.00016	1.8724	.00039	.12317	.16293
#2	-.00040	1.8907	.00217	.12393	.16360

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	49.254	.00001	-.0032	.00061
Stddev	.00000	.021	.00011	.0074	.00025
%RSD	3.5627	.04253	1642.5	233.2	40.777

#1	-.00008	49.239	.00009	-.0084	.00079
#2	-.00007	49.269	-.00007	.0021	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.00215	1.2986	3.6766	.01764
Stddev	.00007	.00006	.0089	.0417	.00056
%RSD	3.3210	2.7301	.68847	1.1346	3.1987

#1	.00204	.00211	1.3049	3.6471	.01804
#2	.00214	.00219	1.2923	3.7061	.01724

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143535-7 tot Acquired: 10/31/2018 12:12:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.081	.67006	-.00052	13.513	.00242
Stddev	.053	.00019	.00012	.028	.00015
%RSD	.35184	.02819	23.695	.20808	6.1545

#1	15.118	.67019	-.00061	13.532	.00232
#2	15.043	.66993	-.00043	13.493	.00253

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00160	3.855	-.00289	-.00288	8.8585
Stddev	.00019	.018	.00016	.00311	.0058
%RSD	11.608	.4760	5.6609	107.90	.06509

#1	.00173	3.842	-.00277	-.00509	8.8544
#2	.00147	3.868	-.00300	-.00068	8.8626

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00136	.32769	.06469	.00211	.00246
Stddev	.00102	.00009	.00093	.00033	.00004
%RSD	74.696	.02773	1.4332	15.626	1.6053

#1	-.00208	.32776	.06403	.00188	.00244
#2	-.00064	.32763	.06534	.00234	.00249

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143535-7 tot Acquired: 10/31/2018 12:12:27 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00852**
 Stddev .00006
 %RSD .67515

#1 **.00848**
 #2 **.00856**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2758.6	4169.2	129350.	8168.4
Stddev	.4	7.4	699.	11.7
%RSD	.01443	.17706	.54022	.14327

#1	2758.3	4174.4	129840.	8160.1
#2	2758.9	4164.0	128850.	8176.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.455%	101.07%	99.010%	103.17%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 12:16:15 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50714	24.821	.49147	.46870	.51269	.49469	24.584	.48975
Stddev	.00042	.116	.00366	.00059	.00424	.00381	.183	.00019
%RSD	.08312	.46689	.74467	.12491	.82789	.77082	.74339	.03781
#1	.50743	24.903	.48888	.46829	.51569	.49738	24.713	.48961
#2	.50684	24.739	.49406	.46912	.50969	.49199	24.455	.48988

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0299	.48831	.51185	.50458	25.060	24.618	.48773	24.463
Stddev	.0019	.00040	.00006	.00040	.189	.163	.00464	.008
%RSD	6.207	.08227	.01117	.07963	.75601	.66228	.95208	.03464
#1	-.0286	.48802	.51181	.50486	25.194	24.734	.49101	24.457
#2	-.0312	.48859	.51189	.50429	24.926	24.503	.48445	24.469

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51757	.49539	25.177	.49566	.48520	24.66	.48970	.49137
Stddev	.00016	.00008	.155	.00127	.00008	.01	.00188	.00091
%RSD	.03074	.01603	.61459	.25719	.01619	.0266	.38423	.18539
#1	.51746	.49533	25.287	.49657	.48514	24.67	.49103	.49201
#2	.51768	.49544	25.068	.49476	.48526	24.66	.48837	.49072

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/31/2018 12:16:15 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.428	.49933	.52453	.49899	.48540	.51554	.48958
Stddev	.065	.00071	.00339	.00080	.00375	.00264	.00097
%RSD	.26498	.14167	.64572	.16003	.77251	.51290	.19736
#1	24.474	.49883	.52692	.49955	.48275	.51741	.49026
#2	24.383	.49983	.52213	.49843	.48806	.51367	.48889

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2548.7	3883.5	122020.	7703.8
Stddev	3.8	4.1	391.	46.4
%RSD	.14760	.10614	.32028	.60278
#1	2546.0	3880.5	121740.	7670.9
#2	2551.3	3886.4	122290.	7736.6

Sample Name: CCB-4957862 Acquired: 10/31/2018 12:19:58 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.00926	.00104	-.00042	-.00000	-.00010	.00232	.00005
Stddev	.00011	.00074	.00036	.00012	.00001	.00003	.00102	.00009
%RSD	62.175	8.0241	34.583	29.500	147.51	27.827	43.903	170.25

#1	-.00026	.00979	.00129	-.00033	-.00001	-.00008	.00304	.00012
#2	-.00010	.00873	.00079	-.00051	.00000	-.00012	.00160	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0061	.00013	.00026	-.00054	.00235	-.01378	-.00016	-.00303
Stddev	.0100	.00003	.00002	.00014	.00374	.00395	.00081	.00246
%RSD	163.0	25.574	5.9363	25.086	159.32	28.667	494.13	81.029

#1	.0009	.00016	.00025	-.00044	-.00030	-.01098	-.00073	-.00477
#2	-.0132	.00011	.00028	-.00064	.00499	-.01657	.00041	-.00129

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00034	.02469	.00023	-.00032	.0087	-.00105	-.00323
Stddev	.00001	.00016	.00279	.00013	.00121	.0022	.00067	.00139
%RSD	62.407	46.223	11.297	54.875	379.78	25.71	64.182	43.008

#1	.00003	.00045	.02272	.00014	.00054	.0103	-.00057	-.00422
#2	.00001	.00023	.02666	.00032	-.00117	.0071	-.00153	-.00225

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 12:19:58 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03054	-0.00033	-0.00009	-0.00023	.00071	-0.00031	.00077
Stddev	.00580	.00017	.00006	.00014	.00078	.00073	.00063
%RSD	18.988	51.464	64.654	61.287	109.44	234.70	81.754

#1	-0.03464	-0.00021	-0.00005	-0.00033	.00016	.00020	.00033
#2	-0.02644	-0.00045	-0.00013	-0.00013	.00126	-0.00082	.00122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2736.6	4051.9	127100.	7796.9
Stddev	2.2	1.8	423.	10.8
%RSD	.07911	.04357	.33250	.13907

#1	2738.1	4053.1	127400.	7789.2
#2	2735.0	4050.6	126800.	7804.5

Sample Name: CCVL-4970377 Acquired: 10/31/2018 12:23:50 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00559	.20482	.01467	.01883	.00210	.00193	.50530	.00211
Stddev	.00004	.00869	.00109	.00028	.00003	.00005	.00571	.00003
%RSD	.64715	4.2450	7.4004	1.4955	1.3518	2.4161	1.1305	1.4157
#1	.00557	.19867	.01390	.01863	.00212	.00197	.50934	.00213
#2	.00562	.21097	.01544	.01903	.00208	.00190	.50126	.00209

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0108	.00399	.00410	.00903	.05215	.45338	.02783	.20079
Stddev	.0262	.00003	.00025	.00029	.00107	.00987	.00043	.00417
%RSD	242.7	.71230	6.0091	3.1629	2.0501	2.1777	1.5381	2.0760
#1	-.0293	.00401	.00393	.00883	.05290	.46036	.02813	.20374
#2	.0077	.00397	.00428	.00923	.05139	.44640	.02752	.19784

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00308	.00944	.97317	.01000	.01033	.1930	.01743	.02180
Stddev	.00006	.00026	.01175	.00014	.00042	.0016	.00004	.00080
%RSD	1.8554	2.7880	1.2073	1.3730	4.0713	.8325	.24094	3.6810
#1	.00304	.00963	.96486	.01010	.01003	.1942	.01746	.02124
#2	.00312	.00925	.98148	.00990	.01063	.1919	.01740	.02237

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 12:23:50 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43259	.00984	.00507	.00450	.01890	.00473	.01016
Stddev	.01584	.00063	.00008	.00021	.00023	.00003	.00053
%RSD	3.6622	6.4079	1.6460	4.6334	1.2040	.69068	5.2374
#1	.42139	.00939	.00502	.00465	.01907	.00475	.01054
#2	.44379	.01028	.00513	.00435	.01874	.00470	.00979

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2742.1	4080.8	127600.	7856.0
Stddev	2.1	6.6	454.	21.6
%RSD	.07523	.16149	.35611	.27546
#1	2740.6	4076.2	127280.	7840.7
#2	2743.5	4085.5	127920.	7871.3

Sample Name: 143404-4 tot Acquired: 10/31/2018 12:27:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	-.00242	.00359	.13143	.10577
Stddev	.00022	.00245	.00178	.00050	.00006
%RSD	35.761	101.11	49.614	.37774	.05992

#1	-.00045	-.00416	.00484	.13108	.10573
#2	-.00076	-.00069	.00233	.13179	.10582

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	187.21	.00021	-.0129	.00738
Stddev	.00001	.00	.00001	.0362	.00031
%RSD	5.2110	.00255	6.2433	281.4	4.2576

#1	-.00015	187.21	.00022	.0127	.00760
#2	-.00016	187.21	.00020	-.0385	.00716

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00026	.35076	10.929	.01046
Stddev	.00021	.00039	.00679	.093	.00080
%RSD	400.85	146.07	1.9366	.85415	7.6474

#1	-.00020	.00054	.35557	10.863	.01102
#2	.00010	-.00001	.34596	10.995	.00989

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143404-4 tot Acquired: 10/31/2018 12:27:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	72.941	2.8346	.00081	60.102	.01102
Stddev	.042	.0032	.00029	.128	.00017
%RSD	.05792	.11394	36.222	.21243	1.5249

#1	72.911	2.8369	.00102	60.192	.01114
#2	72.971	2.8324	.00060	60.011	.01091

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	7.823	-.00303	-.00091	11.492
Stddev	.00019	.021	.00112	.00019	.019
%RSD	410.78	.2684	36.949	21.220	.16397

#1	.00009	7.808	-.00224	-.00105	11.478
#2	-.00018	7.837	-.00383	-.00077	11.505

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.58357	-.00034	.00207	.00000
Stddev	.00005	.00011	.00034	.00107	.00028
%RSD	6.7439	.01930	99.189	51.732	104170.

#1	-.00072	.58365	-.00058	.00283	-.00020
#2	-.00066	.58349	-.00010	.00131	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143404-4 tot Acquired: 10/31/2018 12:27:41 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00151**
 Stddev .00069
 %RSD 45.530

#1 **.00103**
 #2 **.00200**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2544.7	3983.7	126430.	8118.1
Stddev	11.9	19.2	418.	19.8
%RSD	.46810	.48210	.33047	.24340

#1	2553.1	3997.2	126720.	8132.1
#2	2536.3	3970.1	126130.	8104.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.820%	96.571%	96.773%	102.54%
Range				

Sample Name: 143779-5 tot Acquired: 10/31/2018 12:31:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	.03735	-.00080	.01870	.06925
Stddev	.00001	.00266	.00045	.00002	.00010
%RSD	300.55	7.1300	55.822	.08487	.15067

#1	.00001	.03547	-.00112	.01869	.06932
#2	-.00000	.03924	-.00049	.01871	.06918

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	27.717	.00012	-.0176	.00005
Stddev	.00005	.039	.00004	.0099	.00016
%RSD	35.804	.14054	28.692	56.13	300.64

#1	-.00010	27.689	.00010	-.0106	.00016
#2	-.00016	27.744	.00015	-.0245	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00371	.01263	.33527	4.9358	.00335
Stddev	.00009	.00019	.00727	.0333	.00023
%RSD	2.4748	1.4897	2.1698	.67543	7.0050

#1	.00377	.01277	.34041	4.9594	.00319
#2	.00364	.01250	.33012	4.9122	.00352

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143779-5 tot Acquired: 10/31/2018 12:31:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.964	.03431	-.00043	7.4751	.00242
Stddev	.005	.00004	.00000	.0010	.00013
%RSD	.02409	.10313	.48833	.01339	5.4802

#1	20.960	.03428	-.00043	7.4744	.00233
#2	20.967	.03433	-.00043	7.4758	.00252

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00116	8.576	-.00235	-.00240	13.178
Stddev	.00048	.004	.00079	.00604	.038
%RSD	41.110	.0524	33.708	251.39	.28589

#1	.00082	8.579	-.00179	-.00668	13.205
#2	.00149	8.572	-.00291	.00187	13.151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00118	.06508	.00141	.00154	.00200
Stddev	.00097	.00012	.00025	.00013	.00013
%RSD	81.991	.18623	18.022	8.2811	6.4266

#1	-.00049	.06517	.00123	.00163	.00191
#2	-.00186	.06499	.00159	.00145	.00209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143779-5 tot Acquired: 10/31/2018 12:31:29 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00933**
 Stddev .00019
 %RSD 2.0023

#1 **.00920**
 #2 **.00946**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2798.8	4200.2	130730.	8194.0
Stddev	8.2	13.7	154.	39.6
%RSD	.29327	.32501	.11794	.48337

#1	2804.6	4209.9	130840.	8222.0
#2	2793.0	4190.6	130620.	8166.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.889%	101.82%	100.07%	103.50%
Range				

Sample Name: 143779-6 tot Acquired: 10/31/2018 12:35:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	.46884	.00430	.06736	.19289
Stddev	.00011	.00599	.00088	.00038	.00037
%RSD	26.578	1.2779	20.443	.56626	.19035

#1	-.00048	.46461	.00367	.06763	.19315
#2	-.00033	.47308	.00492	.06709	.19263

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	11.845	-.00013	-.0075	.00377
Stddev	.00012	.016	.00001	.0301	.00012
%RSD	142.76	.13598	11.358	399.7	3.0984

#1	.00000	11.857	-.00014	-.0289	.00369
#2	-.00016	11.834	-.00012	.0138	.00386

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00165	42.370	2.8421	.00022
Stddev	.00010	.00033	.081	.0089	.00049
%RSD	41.551	19.772	.19074	.31351	220.23

#1	.00032	.00188	42.427	2.8358	.00057
#2	.00017	.00142	42.313	2.8484	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143779-6 tot Acquired: 10/31/2018 12:35:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.4962	1.6084	-.00073	15.512	.00099
Stddev	.0061	.0030	.00035	.020	.00007
%RSD	.07228	.18373	48.015	.12642	7.5108

#1	8.4918	1.6105	-.00098	15.526	.00093
#2	8.5005	1.6063	-.00048	15.498	.00104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00286	.1105	-.00095	-.00117	5.1133
Stddev	.00057	.0032	.00019	.00217	.0269
%RSD	19.992	2.881	20.243	185.17	.52573

#1	.00246	.1127	-.00108	-.00271	5.0943
#2	.00327	.1082	-.00081	.00036	5.1323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.08118	.01232	.00095	.00276
Stddev	.00021	.00006	.00094	.00233	.00024
%RSD	46.450	.07011	7.6388	245.15	8.8568

#1	-.00030	.08122	.01166	-.00070	.00259
#2	-.00060	.08114	.01299	.00260	.00293

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143779-6 tot Acquired: 10/31/2018 12:35:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00548**
Stddev .00000
%RSD .00509

#1 **.00548**
#2 **.00548**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2798.5	4218.9	132350.	8251.7
Stddev	6.6	2.8	438.	12.6
%RSD	.23452	.06591	.33068	.15273

#1	2803.2	4220.9	132040.	8242.8
#2	2793.9	4217.0	132660.	8260.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.879%	102.27%	101.30%	104.22%
Range				

Sample Name: 143799-3 tot Acquired: 10/31/2018 12:39:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.01411	.00120	-.00014	.03452
Stddev	.00018	.01529	.00248	.00007	.00004
%RSD	82.158	108.35	206.59	46.618	.12615

#1	-.00009	.00330	.00295	-.00010	.03449
#2	-.00034	.02493	-.00055	-.00019	.03455

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	2.4164	-.00013	-.0120	.00626
Stddev	.00005	.0068	.00008	.0272	.00013
%RSD	173.69	.28180	59.232	227.8	2.0556

#1	.00001	2.4212	-.00007	.0073	.00636
#2	-.00006	2.4116	-.00018	-.0312	.00617

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00345	1.2258	.96819	.00033
Stddev	.00032	.00012	.0095	.01331	.00011
%RSD	228.69	3.3465	.77517	1.3745	33.258

#1	.00009	.00337	1.2325	.97760	.00041
#2	-.00037	.00353	1.2191	.95878	.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143799-3 tot Acquired: 10/31/2018 12:39:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2021	1.0008	-.00032	3.5827	.00054
Stddev	.0005	.0023	.00004	.0171	.00018
%RSD	.04020	.22644	11.940	.47717	32.889

#1	1.2024	1.0024	-.00029	3.5706	.00041
#2	1.2018	.99917	-.00034	3.5947	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00121	.0346	-.00219	-.00086	5.3648
Stddev	.00086	.0018	.00130	.00152	.0085
%RSD	71.263	5.172	59.161	176.88	.15859

#1	.00060	.0333	-.00128	-.00193	5.3588
#2	.00182	.0359	-.00311	.00022	5.3708

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.01124	-.00017	.00122	.00074
Stddev	.00006	.00003	.00006	.00046	.00032
%RSD	9.0853	.28591	34.116	37.358	43.463

#1	-.00075	.01122	-.00013	.00090	.00097
#2	-.00066	.01126	-.00021	.00155	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143799-3 tot Acquired: 10/31/2018 12:39:04 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00492**
 Stddev .00108
 %RSD 22.035

#1 **.00569**
 #2 **.00415**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2898.2	4286.7	133870.	8287.5
Stddev	8.1	6.0	54.	18.9
%RSD	.27957	.13984	.04015	.22830

#1	2903.9	4291.0	133910.	8300.8
#2	2892.5	4282.5	133830.	8274.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.44%	103.92%	102.47%	104.68%
Range				

Sample Name: 143799-4 tot Acquired: 10/31/2018 12:42:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00248	.00163	.00237	.08112
Stddev	.00008	.02697	.00084	.00011	.00009
%RSD	128.34	1088.1	51.592	4.5244	.11450

#1	-.00012	-.02155	.00104	.00230	.08118
#2	-.00001	.01659	.00222	.00245	.08105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	12.382	.00016	-.0194	.00068
Stddev	.00005	.019	.00003	.0307	.00015
%RSD	22.972	.15307	21.570	157.9	22.343

#1	.00023	12.395	.00019	-.0411	.00079
#2	.00017	12.368	.00014	.0023	.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00410	.05050	1.6714	.00140
Stddev	.00010	.00010	.00040	.0227	.00139
%RSD	147.08	2.3572	.78805	1.3552	99.407

#1	.00013	.00403	.05078	1.6874	.00239
#2	-.00000	.00416	.05022	1.6553	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143799-4 tot Acquired: 10/31/2018 12:42:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.5459	.90084	-.00040	5.6130	.00035
Stddev	.0020	.00101	.00002	.0025	.00050
%RSD	.05678	.11158	5.9227	.04412	143.63

#1	3.5473	.90155	-.00042	5.6113	.00070
#2	3.5445	.90013	-.00038	5.6148	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	.0302	-.00154	.00011	5.8102
Stddev	.00039	.0035	.00017	.00143	.0106
%RSD	56.083	11.66	11.172	1257.3	.18279

#1	.00098	.0277	-.00166	-.00090	5.8177
#2	.00042	.0327	-.00142	.00113	5.8027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.09896	-.00006	.00231	-.00013
Stddev	.00021	.00001	.00028	.00074	.00034
%RSD	26.384	.01269	443.64	31.917	268.18

#1	-.00096	.09897	-.00026	.00179	.00011
#2	-.00066	.09895	.00013	.00284	-.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143799-4 tot Acquired: 10/31/2018 12:42:53 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00519**
 Stddev .00014
 %RSD 2.7380

#1 **.00509**
 #2 **.00529**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2871.1	4247.7	132590.	8186.6
Stddev	9.9	11.4	14.	8.4
%RSD	.34523	.26748	.01068	.10251

#1	2878.1	4255.8	132600.	8192.6
#2	2864.1	4239.7	132580.	8180.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.47%	102.97%	101.49%	103.40%
Range				

Sample Name: 143785-2 tot Acquired: 10/31/2018 12:46:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.01692	.00117	1.0363	.16549
Stddev	.00014	.00861	.00017	.0010	.00014
%RSD	123.29	50.906	14.563	.10180	.08591

#1	-.00001	.01083	.00130	1.0356	.16560
#2	-.00021	.02301	.00105	1.0371	.16539

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	31.927	.00006	-.0048	.00075
Stddev	.00003	.135	.00004	.0038	.00002
%RSD	8.8217	.42179	60.839	78.87	2.9607

#1	.00030	32.022	.00008	-.0021	.00076
#2	.00034	31.832	.00003	-.0075	.00073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.00004	.34684	4.3820	.00263
Stddev	.00012	.00002	.00603	.0201	.00027
%RSD	63.377	53.073	1.7374	.45911	10.324

#1	-.00011	.00002	.35110	4.3677	.00282
#2	-.00028	.00005	.34258	4.3962	.00244

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143785-2 tot Acquired: 10/31/2018 12:46:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.734	.10494	-.00044	9.9273	.01439
Stddev	.018	.00038	.00019	.0027	.00017
%RSD	.14184	.36146	43.098	.02765	1.2045

#1	12.746	.10521	-.00030	9.9293	.01451
#2	12.721	.10468	-.00057	9.9254	.01427

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	21.76	-.00344	-.00161	8.8185
Stddev	.00025	.02	.00051	.00228	.0523
%RSD	45.375	.0804	14.845	141.77	.59282

#1	-.00072	21.74	-.00308	-.00322	8.8555
#2	-.00037	21.77	-.00380	.00000	8.7815

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.58968	.00013	.00218	.00058
Stddev	.00035	.00125	.00008	.00148	.00024
%RSD	74.520	.21257	59.562	67.958	41.463

#1	-.00022	.58879	.00019	.00113	.00041
#2	-.00071	.59057	.00008	.00322	.00075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143785-2 tot Acquired: 10/31/2018 12:46:41 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00333**
 Stddev .00048
 %RSD 14.578

#1 **.00367**
 #2 **.00298**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2806.1	4184.1	131150.	8236.2
Stddev	9.6	17.5	155.	1.0
%RSD	.34208	.41823	.11811	.01262

#1	2812.9	4196.5	131260.	8236.9
#2	2799.3	4171.7	131040.	8235.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.15%	101.43%	100.39%	104.03%
Range				

Sample Name: 143785-4 tot Acquired: 10/31/2018 12:50:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00087	.00305	.00056	.29117	.17553
Stddev	.00003	.02012	.00112	.00007	.00020
%RSD	3.0822	659.47	199.03	.02493	.11591

#1	-.00085	.01728	.00135	.29122	.17539
#2	-.00089	-.01118	-.00023	.29111	.17567

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	14.692	.00006	-.0254	.02637
Stddev	.00000	.001	.00006	.0144	.00006
%RSD	5.1664	.00491	102.16	56.66	.21321

#1	-.00005	14.692	.00002	-.0356	.02633
#2	-.00006	14.691	.00010	-.0152	.02641

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00065	41.536	2.6526	-.00003
Stddev	.00030	.00015	.002	.0069	.00020
%RSD	296.40	23.242	.00395	.25989	631.84

#1	-.00032	-.00076	41.535	2.6478	.00011
#2	.00011	-.00054	41.538	2.6575	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143785-4 tot Acquired: 10/31/2018 12:50:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.5436	6.9473	-.00098	8.6764	.00231
Stddev	.0062	.0630	.00001	.0325	.00038
%RSD	.09411	.90637	.76104	.37458	16.255

#1	6.5392	6.9028	-.00099	8.6534	.00258
#2	6.5479	6.9918	-.00098	8.6994	.00205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00146	1.462	-.00123	.00465	8.8224
Stddev	.00173	.007	.00028	.00039	.0312
%RSD	118.32	.4564	22.536	8.4638	.35397

#1	.00024	1.467	-.00103	.00438	8.8004
#2	.00268	1.458	-.00143	.00493	8.8445

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.19137	-.00016	-.00050	.00035
Stddev	.00008	.00125	.00025	.00031	.00020
%RSD	66.635	.65458	162.68	61.552	57.368

#1	-.00017	.19048	-.00034	-.00028	.00021
#2	-.00006	.19225	.00002	-.00071	.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143785-4 tot Acquired: 10/31/2018 12:50:28 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00097**
 Stddev .00024
 %RSD 25.226

#1 **.00114**
 #2 **.00080**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2811.2	4212.2	132180.	8313.4
Stddev	4.0	2.9	700.	18.0
%RSD	.14152	.06924	.52972	.21673

#1	2814.0	4214.2	132670.	8326.2
#2	2808.4	4210.1	131680.	8300.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.33%	102.11%	101.17%	105.00%
Range				

Sample Name: 143785-6 tot Acquired: 10/31/2018 12:54:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.23209	.00179	3.4469	.20677
Stddev	.00063	.01079	.00152	.0032	.00008
%RSD	302.37	4.6484	85.289	.09131	.04022

#1	.00024	.22446	.00071	3.4491	.20683
#2	-.00066	.23972	.00286	3.4447	.20671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	39.044	.00027	-.0326	.00320
Stddev	.00005	.041	.00007	.0307	.00013
%RSD	59.917	.10408	28.167	94.21	3.9591

#1	.00005	39.072	.00032	-.0109	.00311
#2	.00012	39.015	.00021	-.0544	.00329

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00256	1.0761	6.2064	.00113
Stddev	.00025	.00011	.0080	.0005	.00102
%RSD	41.603	4.4381	.74850	.00818	90.507

#1	.00077	.00248	1.0818	6.2067	.00185
#2	.00042	.00264	1.0704	6.2060	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143785-6 tot Acquired: 10/31/2018 12:54:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.165	.80208	-.00033	15.797	.00084
Stddev	.015	.00163	.00003	.020	.00020
%RSD	.08720	.20372	8.0758	.12564	23.693

#1	17.176	.80324	-.00031	15.811	.00070
#2	17.155	.80092	-.00035	15.783	.00098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	19.61	-.00366	.00239	10.253
Stddev	.00132	.02	.00146	.00038	.035
%RSD	1075.3	.1071	39.977	15.745	.33851

#1	-.00081	19.62	-.00469	.00265	10.277
#2	.00105	19.59	-.00262	.00212	10.228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.54711	.01188	.00143	.00062
Stddev	.00091	.00195	.00037	.00037	.00000
%RSD	114.44	.35617	3.1211	25.607	.15845

#1	.00015	.54849	.01215	.00117	.00062
#2	.00143	.54573	.01162	.00169	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143785-6 tot Acquired: 10/31/2018 12:54:20 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00335**
 Stddev .00003
 %RSD .84094

#1 **.00333**
 #2 **.00337**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2756.0	4126.6	130070.	8300.7
Stddev	5.4	6.1	548.	3.7
%RSD	.19759	.14781	.42153	.04438

#1	2759.9	4130.9	130450.	8298.1
#2	2752.2	4122.3	129680.	8303.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.361%	100.04%	99.559%	104.84%
Range				

Sample Name: blank Acquired: 10/31/2018 12:58:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	-.02101	.00087	.00322	.00001
Stddev	.00044	.02595	.00240	.00020	.00000
%RSD	144.79	123.51	277.02	6.0794	44.990

#1	.00001	-.00266	-.00083	.00336	.00001
#2	-.00062	-.03935	.00257	.00308	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.01210	.00008	-.0099	.00011
Stddev	.00009	.00479	.00005	.0065	.00014
%RSD	109.70	39.596	61.355	65.34	128.36

#1	-.00014	.00871	.00011	-.0145	.00021
#2	-.00002	.01549	.00004	-.0053	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00039	.00289	-.04527	.00082
Stddev	.00013	.00011	.00056	.00354	.00054
%RSD	115.25	26.845	19.367	7.8298	65.081

#1	.00020	-.00047	.00329	-.04276	.00120
#2	.00002	-.00032	.00250	-.04778	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 12:58:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00241	.00012	-.00041	.01327	.00010
Stddev	.00029	.00004	.00005	.00734	.00013
%RSD	11.893	33.945	12.697	55.318	134.56

#1	-.00221	.00015	-.00037	.00808	.00019
#2	-.00261	.00009	-.00045	.01846	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.0100	-.00216	.00023	-.04261
Stddev	.00021	.0012	.00008	.00017	.01457
%RSD	108.46	12.44	3.6452	73.072	34.202

#1	.00034	.0109	-.00210	.00011	-.03231
#2	.00004	.0091	-.00221	.00035	-.05292

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	-.00003	-.00033	.00150	-.00034
Stddev	.00002	.00005	.00001	.00044	.00017
%RSD	7.9776	155.37	3.5300	29.045	49.171

#1	-.00026	.00000	-.00032	.00120	-.00022
#2	-.00029	-.00006	-.00034	.00181	-.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 12:58:06 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **-.00004**
 Stddev .00066
 %RSD 1719.5

#1 .00043
 #2 -.00051

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2733.1	4044.3	126460.	7732.0
Stddev	5.8	8.7	236.	33.9
%RSD	.21247	.21495	.18637	.43881

#1	2729.0	4038.1	126290.	7708.0
#2	2737.2	4050.4	126620.	7756.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.545%	98.040%	96.796%	97.660%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 13:01:59 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50989	25.148	.48697	.46914	.51317	.49766	24.925	.48888
Stddev	.00114	.004	.00260	.00154	.00110	.00062	.022	.00018
%RSD	.22351	.01514	.53309	.32914	.21370	.12509	.08939	.03663

#1	.50908	25.151	.48513	.46805	.51240	.49722	24.910	.48901
#2	.51070	25.145	.48880	.47024	.51395	.49810	24.941	.48875

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0367	.49044	.51691	.50422	25.282	24.654	.48777	24.623
Stddev	.0539	.00020	.00063	.00128	.002	.025	.00076	.017
%RSD	147.0	.04136	.12220	.25477	.00778	.10151	.15637	.07043

#1	.0015	.49058	.51736	.50331	25.281	24.637	.48723	24.611
#2	-.0748	.49029	.51646	.50513	25.284	24.672	.48831	24.636

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52099	.49450	25.296	.49702	.48591	24.61	.48893	.48902
Stddev	.00023	.00059	.047	.00138	.00146	.03	.00106	.00209
%RSD	.04320	.11974	.18686	.27852	.30147	.1077	.21583	.42838

#1	.52115	.49492	25.262	.49800	.48694	24.59	.48818	.49051
#2	.52083	.49408	25.329	.49604	.48487	24.63	.48967	.48754

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/31/2018 13:01:59 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.704	.50181	.52818	.49924	.48644	.51852	.49602
Stddev	.044	.00161	.00057	.00125	.00091	.00015	.00094
%RSD	.17755	.32062	.10862	.25011	.18652	.02940	.18892
#1	24.673	.50068	.52778	.49836	.48580	.51841	.49669
#2	24.735	.50295	.52859	.50012	.48708	.51862	.49536

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.2	3915.3	122380.	7631.2
Stddev	1.8	4.8	77.	36.4
%RSD	.07048	.12225	.06309	.47656
#1	2560.5	3918.7	122430.	7605.5
#2	2557.9	3912.0	122320.	7657.0

Sample Name: CCB-4957862 Acquired: 10/31/2018 13:05:42 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	-.00347	.00011	.00149	-.00001	-.00011	.00252	.00009
Stddev	.00002	.01659	.00033	.00005	.00001	.00002	.00050	.00001
%RSD	12.556	477.63	297.68	3.2647	104.32	17.312	19.766	15.876

#1	-.00017	-.01520	.00034	.00152	-.00002	-.00013	.00288	.00008
#2	-.00020	.00826	-.00012	.00145	-.00000	-.00010	.00217	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0104	.00005	-.00010	-.00036	.00021	-.03614	-.00012	-.00133
Stddev	.0039	.00006	.00025	.00009	.00092	.01923	.00081	.00079
%RSD	37.37	128.90	250.22	25.073	442.00	53.200	698.61	59.207

#1	-.0076	.00010	.00008	-.00030	-.00044	-.04974	-.00069	-.00188
#2	-.0131	.00000	-.00028	-.00043	.00086	-.02255	.00046	-.00077

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00030	.01723	-.00011	.00068	.0074	-.00122	.00025
Stddev	.00004	.00002	.00194	.00013	.00045	.0005	.00030	.00125
%RSD	57.519	8.1570	11.270	122.22	65.947	6.306	24.513	498.61

#1	.00004	.00032	.01586	-.00020	.00100	.0078	-.00143	.00114
#2	.00010	.00029	.01861	-.00001	.00036	.0071	-.00101	-.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 13:05:42 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02935	-.00006	-.00012	-.00004	.00068	-.00007	.00107
Stddev	.00436	.00007	.00005	.00015	.00045	.00011	.00020
%RSD	14.838	126.43	42.621	405.56	66.427	171.92	19.055

#1	-.03243	-.00001	-.00016	.00007	.00100	.00001	.00122
#2	-.02627	-.00011	-.00008	-.00014	.00036	-.00015	.00093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2745.8	4082.8	127320.	7751.1
Stddev	.7	4.5	100.	1.0
%RSD	.02475	.10961	.07844	.01303

#1	2745.3	4079.6	127390.	7751.8
#2	2746.2	4086.0	127250.	7750.4

Sample Name: CCVL-4970377 Acquired: 10/31/2018 13:09:34 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00576	.19571	.01415	.01946	.00209	.00207	.50719	.00213
Stddev	.00008	.00255	.00023	.00006	.00002	.00003	.00005	.00010
%RSD	1.3217	1.3027	1.6376	.29060	.94511	1.5515	.01009	4.4727
#1	.00581	.19391	.01431	.01950	.00211	.00205	.50715	.00206
#2	.00570	.19752	.01399	.01942	.00208	.00209	.50722	.00219

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0024	.00379	.00390	.00930	.05134	.40105	.02798	.20090
Stddev	.0168	.00019	.00033	.00004	.00213	.03232	.00044	.00188
%RSD	691.3	5.0591	8.4356	.39841	4.1585	8.0597	1.5672	.93752
#1	-.0143	.00392	.00414	.00928	.04983	.37819	.02829	.19957
#2	.0095	.00365	.00367	.00933	.05285	.42390	.02767	.20223

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00318	.00956	.95954	.01004	.01000	.1926	.01730	.02146
Stddev	.00003	.00015	.00302	.00016	.00054	.0030	.00095	.00063
%RSD	.98183	1.5519	.31434	1.6380	5.4226	1.563	5.4960	2.9471
#1	.00320	.00945	.95741	.01016	.01038	.1905	.01797	.02101
#2	.00316	.00966	.96168	.00993	.00962	.1947	.01663	.02191

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 13:09:34 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41655	.00871	.00510	.00464	.02022	.00451	.01066
Stddev	.00594	.00078	.00009	.00001	.00129	.00007	.00029
%RSD	1.4257	8.9864	1.7805	.19967	6.3997	1.4948	2.7218
#1	.42075	.00816	.00504	.00464	.02114	.00456	.01045
#2	.41235	.00926	.00517	.00463	.01931	.00446	.01086

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2744.4	4085.0	127920.	7775.0
Stddev	4.3	.5	48.	11.2
%RSD	.15544	.01217	.03760	.14414
#1	2747.4	4085.3	127880.	7767.1
#2	2741.3	4084.6	127950.	7782.9

Sample Name: MB 480-441741/1-A Acquired: 10/31/2018 13:13:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	-.01761	-.00275	.00076	.00002
Stddev	.00034	.01308	.00173	.00009	.00001
%RSD	177.07	74.301	62.800	11.774	43.583

#1	-0.00005	-.00836	-.00397	.00083	.00003
#2	.00044	-.02686	-.00153	.00070	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.01167	.00008	.0058	-.00002
Stddev	.00000	.00203	.00005	.0109	.00003
%RSD	.34947	17.396	55.843	186.4	179.63

#1	-0.00008	.01311	.00011	-.0019	-.00004
#2	-0.00008	.01024	.00005	.0135	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00059	-.00056	.00461	-.03492	.00000
Stddev	.00022	.00009	.00098	.00615	.00032
%RSD	37.586	15.238	21.173	17.624	6906.1

#1	.00044	-.00062	.00392	-.03927	-.00022
#2	.00075	-.00050	.00530	-.03056	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441741/1-A Acquired: 10/31/2018 13:13:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00213	.00014	-.00016	.01059	-.00012
Stddev	.00149	.00004	.00001	.00401	.00017
%RSD	70.076	25.936	7.8002	37.868	148.02

#1	-.00107	.00012	-.00017	.00775	.00001
#2	-.00318	.00017	-.00015	.01342	-.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.0043	-.00211	.00079	-.06433
Stddev	.00087	.0013	.00079	.00192	.00011
%RSD	902.91	29.80	37.499	244.97	.17457

#1	-.00052	.0034	-.00155	.00215	-.06441
#2	.00071	.0052	-.00267	-.00058	-.06425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00001	.00021	.00139	-.00039
Stddev	.00006	.00003	.00012	.00033	.00011
%RSD	45.381	382.07	59.867	23.580	28.687

#1	.00019	-.00003	.00012	.00116	-.00031
#2	.00010	.00001	.00029	.00162	-.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441741/1-A Acquired: 10/31/2018 13:13:25 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00200**
 Stddev .00037
 %RSD 18.463

#1 **.00174**
 #2 **.00226**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2761.5	4122.6	129040.	7939.5
Stddev	1.6	.3	343.	15.5
%RSD	.05803	.00611	.26591	.19521

#1	2760.3	4122.8	128800.	7950.5
#2	2762.6	4122.5	129280.	7928.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.556%	99.940%	98.773%	100.28%
Range				

Sample Name: LCS 480-441741/2-A Acquired: 10/31/2018 13:17:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04793	9.5945	.19271	.18791	.19538
Stddev	.00017	.0227	.00096	.00004	.00010
%RSD	.35712	.23610	.49927	.02131	.05131

#1	.04781	9.6105	.19203	.18794	.19545
#2	.04805	9.5785	.19339	.18788	.19531

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19887	9.5230	.19181	-.0146	.18445
Stddev	.00079	.0075	.00004	.0084	.00063
%RSD	.39504	.07880	.02261	57.84	.34409

#1	.19831	9.5284	.19178	-.0086	.18490
#2	.19943	9.5177	.19185	-.0205	.18400

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19708	.18877	9.7691	9.0353	.18136
Stddev	.00009	.00072	.0023	.0045	.00057
%RSD	.04549	.38167	.02318	.04926	.31244

#1	.19714	.18927	9.7675	9.0384	.18096
#2	.19701	.18826	9.7707	9.0321	.18176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441741/2-A Acquired: 10/31/2018 13:17:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.6177	.19469	.18491	9.2999	.19569
Stddev	.0246	.00026	.00004	.0062	.00008
%RSD	.25567	.13329	.01925	.06694	.03956

#1	9.6351	.19487	.18494	9.3043	.19564
#2	9.6003	.19451	.18489	9.2955	.19575

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18723	9.423	.18666	.19165	9.3585
Stddev	.00207	.026	.00011	.00094	.0219
%RSD	1.1035	.2730	.06122	.48819	.23374

#1	.18870	9.405	.18674	.19099	9.3430
#2	.18577	9.441	.18657	.19231	9.3740

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18649	.19751	.18952	.18942	.19787
Stddev	.00037	.00026	.00036	.00308	.00013
%RSD	.19715	.13238	.18942	1.6278	.06445

#1	.18675	.19732	.18927	.19160	.19796
#2	.18623	.19769	.18978	.18724	.19778

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441741/2-A Acquired: 10/31/2018 13:17:17 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19955**
 Stddev .00043
 %RSD .21342

#1 **.19985**
 #2 **.19925**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2674.1	4036.5	126590.	7898.5
Stddev	5.3	14.1	33.	8.9
%RSD	.19877	.34847	.02639	.11260

#1	2677.9	4046.5	126570.	7904.8
#2	2670.3	4026.6	126610.	7892.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.438%	97.852%	96.899%	99.763%
Range				

Sample Name: MB 480-441628/1-A Acquired: 10/31/2018 13:20:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	-.00885	.00114	.00077	.00006
Stddev	.00003	.01665	.00126	.00075	.00002
%RSD	21.071	188.19	109.77	98.178	36.035

#1	-.00015	.00293	.00026	.00023	.00007
#2	-.00011	-.02062	.00203	.00130	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.03779	.00006	-.0214	.00014
Stddev	.00007	.00211	.00004	.0165	.00014
%RSD	78.250	5.5952	74.555	77.21	97.011

#1	-.00004	.03630	.00009	-.0330	.00024
#2	-.00013	.03929	.00003	-.0097	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	-.00028	.00858	-.01973	.00029
Stddev	.00018	.00021	.00076	.04539	.00061
%RSD	58.244	75.850	8.8521	229.99	208.25

#1	.00018	-.00043	.00912	.01236	.00072
#2	.00043	-.00013	.00804	-.05183	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441628/1-A Acquired: 10/31/2018 13:20:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00296	.00015	.00004	.02913	.00008
Stddev	.00307	.00006	.00014	.00452	.00009
%RSD	103.79	41.783	397.71	15.504	111.31

#1	.00513	.00020	.00013	.03233	.00015
#2	.00079	.00011	-.00006	.02594	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.0101	-.00098	-.00017	-.04389
Stddev	.00002	.0019	.00021	.00140	.00429
%RSD	3.8943	18.89	21.425	807.14	9.7669

#1	.00042	.0115	-.00083	.00082	-.04086
#2	.00040	.0088	-.00112	-.00116	-.04692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00002	-.00018	.00119	-.00026
Stddev	.00004	.00007	.00062	.00086	.00004
%RSD	404.40	296.95	337.71	72.399	15.803

#1	-.00004	-.00003	-.00062	.00180	-.00023
#2	.00002	.00007	.00026	.00058	-.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441628/1-A Acquired: 10/31/2018 13:20:57 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00167**
 Stddev .00043
 %RSD 25.731

#1 **.00137**
 #2 **.00198**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2742.2	4078.4	129180.	7979.3
Stddev	2.6	.7	289.	3.8
%RSD	.09491	.01825	.22354	.04818

#1	2740.3	4077.9	128970.	7982.1
#2	2744.0	4078.9	129380.	7976.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.867%	98.867%	98.879%	100.78%
Range				

Sample Name: LCS 480-441628/2-A Acquired: 10/31/2018 13:24:48 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05089	10.175	.20354	.20019	.20939
Stddev	.00018	.019	.00062	.00027	.00028
%RSD	.36195	.18241	.30373	.13390	.13437

#1	.05102	10.162	.20310	.20038	.20959
#2	.05076	10.188	.20397	.20000	.20919

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20860	9.9642	.20297	-.0111	.19509
Stddev	.00069	.0273	.00004	.0020	.00028
%RSD	.33268	.27345	.01799	17.88	.14102

#1	.20811	9.9449	.20300	-.0125	.19489
#2	.20909	9.9835	.20295	-.0097	.19528

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20828	.20035	10.242	9.6538	.19402
Stddev	.00004	.00024	.026	.0203	.00024
%RSD	.02041	.11898	.25137	.21042	.12514

#1	.20825	.20051	10.224	9.6394	.19419
#2	.20831	.20018	10.260	9.6681	.19385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441628/2-A Acquired: 10/31/2018 13:24:48 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.115	.20516	.19643	9.9127	.20755
Stddev	.004	.00008	.00034	.0486	.00041
%RSD	.03963	.03716	.17334	.49053	.19708

#1	10.112	.20511	.19667	9.9470	.20784
#2	10.117	.20522	.19619	9.8783	.20726

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19697	10.08	.19768	.20378	9.8199
Stddev	.00121	.01	.00021	.00235	.0431
%RSD	.61228	.0810	.10532	1.1521	.43935

#1	.19783	10.09	.19783	.20544	9.7894
#2	.19612	10.08	.19754	.20212	9.8504

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19940	.21023	.20055	.20164	.20963
Stddev	.00140	.00044	.00000	.00013	.00146
%RSD	.69991	.21137	.00024	.06324	.69416

#1	.19842	.21055	.20055	.20155	.21065
#2	.20039	.20992	.20055	.20173	.20860

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441628/2-A Acquired: 10/31/2018 13:24:48 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20856**
 Stddev .00138
 %RSD .66253

#1 **.20954**
 #2 **.20759**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2653.9	4009.8	125620.	7946.3
Stddev	1.6	2.3	68.	16.2
%RSD	.05937	.05774	.05387	.20345

#1	2652.8	4008.2	125570.	7957.7
#2	2655.0	4011.4	125670.	7934.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.717%	97.205%	96.158%	100.37%
Range				

Sample Name: 480-144022-D-3-A Acquired: 10/31/2018 13:28:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.02216	.00036	.01421	.00527
Stddev	.00023	.00711	.00283	.00019	.00003
%RSD	47.820	32.070	781.67	1.3444	.55449

#1	-.00063	.01714	-.00164	.01435	.00529
#2	-.00031	.02719	.00236	.01408	.00525

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	2.0183	.00003	-.0194	.00011
Stddev	.00004	.0031	.00004	.0232	.00014
%RSD	71.259	.15572	122.01	119.5	126.24

#1	-.00003	2.0205	.00000	-.0358	.00021
#2	-.00009	2.0161	.00006	-.0030	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00348	.03303	.07388	.86133	.00111
Stddev	.00011	.00013	.00188	.01794	.00082
%RSD	3.2905	.38832	2.5416	2.0823	73.261

#1	.00356	.03312	.07255	.87401	.00054
#2	.00340	.03294	.07521	.84865	.00169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-A Acquired: 10/31/2018 13:28:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37683	.01009	.00037	5.0392	.00477
Stddev	.00312	.00002	.00002	.0112	.00024
%RSD	.82688	.19039	6.1453	.22154	5.0332

#1	.37463	.01010	.00039	5.0313	.00460
#2	.37904	.01008	.00036	5.0470	.00494

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	1.354	-.00031	-.00119	1.0804
Stddev	.00055	.003	.00102	.00139	.0025
%RSD	1045.0	.2204	325.76	117.45	.23238

#1	.00034	1.356	-.00103	-.00217	1.0786
#2	-.00044	1.352	.00041	-.00020	1.0822

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00895	-.00018	.00155	-.00011
Stddev	.00023	.00005	.00016	.00030	.00003
%RSD	129.72	.56945	90.585	19.030	30.879

#1	.00035	.00891	-.00006	.00134	-.00013
#2	.00001	.00898	-.00029	.00176	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-A Acquired: 10/31/2018 13:28:28 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.04843**
 Stddev .00033
 %RSD .68052

#1 **.04820**
 #2 **.04867**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2730.8	4060.4	127570.	7903.8
Stddev	.2	.3	52.	19.4
%RSD	.00571	.00633	.04054	.24482

#1	2730.9	4060.2	127530.	7890.1
#2	2730.7	4060.5	127610.	7917.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.460%	98.430%	97.650%	99.830%
Range				

Sample Name: 480-144022-D-3-Asd@5 Acquired: 10/31/2018 13:32:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	-.01214	.00041	.00262	.00106
Stddev	.00014	.01609	.00190	.00003	.00000
%RSD	38.725	132.58	461.67	.96421	.10195

#1	-.00027	-.02351	.00176	.00260	.00106
#2	-.00047	-.00076	-.00093	.00264	.00106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.40738	.00009	.0279	.00028
Stddev	.00006	.00174	.00005	.0150	.00004
%RSD	57.222	.42826	53.586	53.73	15.527

#1	-.00015	.40615	.00013	.0173	.00025
#2	-.00006	.40861	.00006	.0385	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00075	.00609	.01470	.17324	.00025
Stddev	.00030	.00007	.00077	.00111	.00083
%RSD	39.853	1.1122	5.2605	.64009	326.01

#1	.00054	.00614	.01415	.17246	-.00033
#2	.00096	.00604	.01525	.17403	.00084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-Asd@5 Acquired: 10/31/2018 13:32:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07469	.00185	-.00005	1.0066	.00084
Stddev	.00287	.00003	.00015	.0109	.00001
%RSD	3.8440	1.4650	293.46	1.0861	1.4126

#1	.07266	.00183	.00006	.99888	.00083
#2	.07672	.00187	-.00016	1.0143	.00084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.2732	-.00157	-.00153	.18550
Stddev	.00012	.0046	.00007	.00041	.00872
%RSD	38.095	1.689	4.2854	26.704	4.7029

#1	.00040	.2764	-.00153	-.00124	.17934
#2	.00023	.2699	-.00162	-.00182	.19167

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.00177	-.00003	.00005	-.00027
Stddev	.00023	.00007	.00005	.00035	.00011
%RSD	123.17	3.8347	178.21	770.17	39.456

#1	-.00034	.00172	.00001	.00029	-.00019
#2	-.00002	.00181	-.00007	-.00020	-.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-Asd@5 Acquired: 10/31/2018 13:32:18 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01073**
 Stddev .00041
 %RSD 3.8016

#1 **.01045**
 #2 **.01102**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.3	4086.1	127560.	7852.6
Stddev	1.3	3.1	234.	1.4
%RSD	.04620	.07692	.18343	.01771

#1	2742.4	4088.3	127400.	7853.6
#2	2744.2	4083.9	127730.	7851.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.907%	99.055%	97.642%	99.183%
Range				

Sample Name: 480-144022-D-3-Apds Acquired: 10/31/2018 13:36:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05103	10.374	.20723	.21757	.21672
Stddev	.00013	.018	.00008	.00106	.00109
%RSD	.24568	.17541	.03649	.48880	.50259

#1	.05094	10.386	.20718	.21832	.21749
#2	.05112	10.361	.20729	.21681	.21595

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21193	12.044	.20650	-.0113	.19914
Stddev	.00011	.044	.00042	.0110	.00038
%RSD	.05100	.36692	.20267	96.75	.19273

#1	.21200	12.075	.20679	-.0191	.19942
#2	.21185	12.013	.20620	-.0036	.19887

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21432	.23478	10.479	10.770	.19847
Stddev	.00209	.00066	.029	.040	.00070
%RSD	.97327	.28322	.27588	.36970	.35275

#1	.21580	.23525	10.499	10.741	.19896
#2	.21285	.23431	10.458	10.798	.19797

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-Apds Acquired: 10/31/2018 13:36:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.606	.21695	.20073	15.060	.21492
Stddev	.006	.00007	.00086	.023	.00090
%RSD	.05569	.03002	.42627	.15575	.41889

#1	10.602	.21690	.20133	15.077	.21428
#2	10.610	.21700	.20012	15.044	.21556

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20203	11.45	.20120	.20338	11.145
Stddev	.00003	.04	.00004	.00252	.001
%RSD	.01337	.3724	.02155	1.2374	.01020

#1	.20205	11.48	.20123	.20516	11.144
#2	.20201	11.42	.20116	.20160	11.146

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20515	.22207	.20293	.20534	.21186
Stddev	.00100	.00047	.00032	.00135	.00042
%RSD	.48869	.21229	.15603	.65729	.19651

#1	.20586	.22241	.20316	.20629	.21216
#2	.20444	.22174	.20271	.20438	.21157

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-Apds Acquired: 10/31/2018 13:36:09 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.25847**
 Stddev .00093
 %RSD .36093

#1 **.25913**
 #2 **.25781**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.0	3987.6	125720.	7919.1
Stddev	4.8	16.2	126.	7.3
%RSD	.18065	.40726	.10033	.09185

#1	2635.7	3976.1	125640.	7914.0
#2	2642.4	3999.1	125810.	7924.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.186%	96.666%	96.236%	100.02%
Range				

Sample Name: 480-144022-D-3-B MS Acquired: 10/31/2018 13:39:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05151	10.536	.20516	.21824	.21852
Stddev	.00031	.054	.00204	.00050	.00019
%RSD	.60691	.51681	.99581	.22962	.08579

#1	.05129	10.575	.20371	.21789	.21865
#2	.05173	10.498	.20660	.21860	.21838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21257	12.057	.20521	-.0076	.19795
Stddev	.00089	.022	.00028	.0126	.00029
%RSD	.41777	.18523	.13444	165.2	.14598

#1	.21320	12.073	.20502	.0013	.19815
#2	.21194	12.041	.20541	-.0165	.19774

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21315	.23497	10.499	10.852	.20095
Stddev	.00043	.00020	.024	.012	.00030
%RSD	.20382	.08597	.23281	.11350	.14944

#1	.21346	.23511	10.482	10.861	.20074
#2	.21284	.23482	10.517	10.844	.20116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-B MS Acquired: 10/31/2018 13:39:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.542	.21645	.20106	15.409	.21395
Stddev	.029	.00083	.00014	.002	.00087
%RSD	.27938	.38501	.06990	.01110	.40693

#1	10.563	.21704	.20116	15.410	.21456
#2	10.521	.21586	.20096	15.408	.21333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19880	11.58	.19940	.20340	11.221
Stddev	.00149	.01	.00077	.00013	.008
%RSD	.75071	.1000	.38722	.06231	.07388

#1	.19985	11.58	.19994	.20349	11.227
#2	.19774	11.59	.19885	.20331	11.215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20402	.22667	.20266	.20323	.20958
Stddev	.00002	.00039	.00046	.00005	.00130
%RSD	.01129	.17349	.22760	.02439	.62048

#1	.20401	.22694	.20299	.20326	.21050
#2	.20404	.22639	.20234	.20319	.20866

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-B MS Acquired: 10/31/2018 13:39:49 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.25496**
 Stddev .00005
 %RSD .02074

#1 **.25492**
 #2 **.25500**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2635.5	3979.4	125270.	7840.3
Stddev	3.1	10.5	82.	20.0
%RSD	.11911	.26299	.06527	.25503

#1	2637.8	3986.8	125210.	7826.2
#2	2633.3	3972.0	125320.	7854.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.062%	96.467%	95.886%	99.028%
Range				

Sample Name: 480-144022-D-3-C MSD Acquired: 10/31/2018 13:43:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04987	10.250	.20401	.21246	.21364
Stddev	.00007	.025	.00143	.00085	.00015
%RSD	.14166	.24158	.70203	.39890	.07009

#1	.04982	10.267	.20300	.21186	.21354
#2	.04992	10.232	.20502	.21306	.21375

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20697	11.797	.20099	-.0062	.19325
Stddev	.00004	.044	.00020	.0661	.00030
%RSD	.02003	.37204	.10170	1075.	.15718

#1	.20694	11.766	.20085	-.0529	.19304
#2	.20700	11.828	.20113	.0406	.19347

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20831	.22987	10.246	10.544	.19486
Stddev	.00121	.00011	.003	.032	.00051
%RSD	.58043	.04614	.02913	.30215	.26371

#1	.20916	.22995	10.248	10.566	.19522
#2	.20746	.22980	10.244	10.521	.19450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-C MSD Acquired: 10/31/2018 13:43:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.343	.21201	.19658	14.928	.20968
Stddev	.000	.00005	.00004	.030	.00061
%RSD	.00059	.02577	.02269	.20405	.28890

#1	10.343	.21205	.19661	14.950	.21011
#2	10.343	.21197	.19655	14.907	.20925

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19628	11.33	.19607	.20045	10.801
Stddev	.00130	.02	.00133	.00461	.030
%RSD	.66312	.1404	.67735	2.2988	.28053

#1	.19536	11.34	.19701	.20370	10.779
#2	.19720	11.32	.19513	.19719	10.822

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19823	.22012	.19763	.19929	.20738
Stddev	.00057	.00008	.00036	.00014	.00112
%RSD	.28699	.03856	.18233	.06971	.53955

#1	.19783	.22018	.19788	.19938	.20817
#2	.19863	.22006	.19737	.19919	.20659

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144022-D-3-C MSD Acquired: 10/31/2018 13:43:28 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.24972**
 Stddev .00125
 %RSD .50022

#1 **.25061**
 #2 **.24884**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2642.4	3986.2	125140.	7885.5
Stddev	3.2	1.2	271.	2.2
%RSD	.12134	.02960	.21650	.02826

#1	2644.6	3987.0	124950.	7884.0
#2	2640.1	3985.4	125330.	7887.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.305%	96.632%	95.789%	99.599%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 13:47:10 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50773	24.991	.48849	.46644	.50850	.49735	24.827	.48766
Stddev	.00153	.056	.00444	.00014	.00194	.00076	.059	.00016
%RSD	.30037	.22454	.90931	.03030	.38124	.15242	.23769	.03324
#1	.50881	24.951	.49163	.46654	.50987	.49789	24.869	.48754
#2	.50665	25.030	.48535	.46634	.50713	.49681	24.786	.48777

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0194	.48995	.51213	.50453	25.189	24.700	.48667	24.523
Stddev	.0013	.00006	.00158	.00040	.032	.090	.00271	.033
%RSD	6.958	.01179	.30754	.07860	.12755	.36570	.55590	.13432
#1	-.0203	.48999	.51324	.50481	25.212	24.636	.48858	24.546
#2	-.0184	.48991	.51102	.50425	25.167	24.764	.48476	24.500

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51802	.49168	25.223	.49744	.48603	24.51	.48693	.49446
Stddev	.00036	.00046	.050	.00016	.00411	.06	.00082	.00133
%RSD	.06875	.09324	.19769	.03304	.84521	.2438	.16802	.26798
#1	.51827	.49136	25.188	.49756	.48894	24.47	.48635	.49352
#2	.51777	.49201	25.259	.49732	.48313	24.55	.48751	.49540

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/31/2018 13:47:10 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.546	.50025	.52622	.49768	.48446	.51690	.49043
Stddev	.041	.00025	.00145	.00021	.00228	.00198	.00266
%RSD	.16656	.05029	.27531	.04282	.47043	.38307	.54215
#1	24.518	.50007	.52520	.49784	.48284	.51830	.49231
#2	24.575	.50043	.52725	.49753	.48607	.51550	.48855

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2566.6	3935.6	122960.	7679.8
Stddev	1.3	2.5	595.	12.7
%RSD	.05014	.06296	.48355	.16548
#1	2565.7	3937.4	122540.	7670.8
#2	2567.6	3933.9	123380.	7688.8

Sample Name: CCB-4957862 Acquired: 10/31/2018 13:50:53 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	-.00434	.00020	-.00040	-.00002	-.00002	.00380	.00004
Stddev	.00001	.00083	.00341	.00021	.00001	.00001	.00203	.00000
%RSD	20.466	19.165	1703.5	51.873	68.036	59.100	53.505	1.0795

#1	-.00006	-.00375	-.00221	-.00025	-.00003	-.00003	.00523	.00005
#2	-.00005	-.00493	.00261	-.00054	-.00001	-.00001	.00236	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0124	.00008	.00001	-.00056	-.00039	-.03228	-.00023	-.00295
Stddev	.0077	.00012	.00025	.00041	.00228	.06001	.00113	.00046
%RSD	62.42	149.40	1998.2	74.247	583.33	185.90	487.55	15.666

#1	.0069	-.00000	.00019	-.00085	.00122	-.07471	.00057	-.00262
#2	.0178	.00016	-.00016	-.00026	-.00200	.01015	-.00103	-.00327

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00055	.00093	.00014	.00049	.0001	-.00091	-.00177
Stddev	.00006	.00003	.00417	.00007	.00037	.0017	.00043	.00087
%RSD	91.708	4.7526	448.59	48.265	77.033	1456.	47.814	49.153

#1	.00002	.00053	.00388	.00019	.00022	.0014	-.00122	-.00239
#2	.00010	.00056	-.00202	.00009	.00075	-.0011	-.00060	-.00116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 13:50:53 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03865	-.00001	-.00011	.00008	.00113	-.00008	.00075
Stddev	.01299	.00004	.00003	.00014	.00065	.00020	.00004
%RSD	33.612	340.22	23.941	178.60	57.454	235.93	5.4861

#1	-.02946	.00002	-.00013	-.00002	.00158	.00006	.00078
#2	-.04784	-.00004	-.00009	.00017	.00067	-.00023	.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2742.9	4080.8	127210.	7814.8
Stddev	3.0	6.2	56.	19.0
%RSD	.10958	.15226	.04420	.24351

#1	2740.8	4076.4	127170.	7828.3
#2	2745.0	4085.2	127250.	7801.4

Sample Name: CCVL-4970377 Acquired: 10/31/2018 13:54:45 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00571	.16951	.01584	.01874	.00207	.00196	.50190	.00208
Stddev	.00020	.01242	.00102	.00014	.00000	.00002	.00400	.00004
%RSD	3.5606	7.3274	6.4614	.73786	.16247	1.2673	.79789	1.9641
#1	.00557	.16073	.01512	.01884	.00207	.00195	.49907	.00205
#2	.00585	.17830	.01657	.01864	.00208	.00198	.50473	.00210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0183	.00404	.00418	.00921	.05100	.43190	.02833	.20417
Stddev	.0192	.00005	.00008	.00015	.00226	.00259	.00048	.00194
%RSD	104.9	1.2747	1.8520	1.5901	4.4242	.59910	1.7104	.95114
#1	.0047	.00400	.00413	.00911	.05260	.43373	.02798	.20555
#2	.0318	.00407	.00423	.00932	.04941	.43007	.02867	.20280

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00316	.00961	.96191	.01010	.01005	.1909	.01780	.02772
Stddev	.00006	.00020	.00390	.00039	.00090	.0025	.00067	.00052
%RSD	1.9892	2.0840	.40573	3.8488	8.9347	1.289	3.7389	1.8656
#1	.00321	.00947	.95915	.01038	.01069	.1926	.01733	.02808
#2	.00312	.00975	.96466	.00983	.00942	.1891	.01827	.02735

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 13:54:45 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42769	.00947	.00506	.00471	.02077	.00481	.00997
Stddev	.01597	.00025	.00009	.00009	.00061	.00011	.00048
%RSD	3.7349	2.6395	1.8162	1.8339	2.9142	2.3229	4.7878

#1	.41639	.00964	.00500	.00465	.02120	.00489	.00963
#2	.43898	.00929	.00513	.00477	.02034	.00473	.01030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.8	4099.2	128090.	7855.8
Stddev	1.0	12.3	116.	47.6
%RSD	.03816	.30039	.09057	.60570

#1	2743.0	4090.5	128000.	7889.4
#2	2744.5	4107.9	128170.	7822.2

Sample Name: 480-143941-H-1-A Acquired: 10/31/2018 13:58:37 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.22548	.00177	.21831	.06749
Stddev	.00047	.00024	.00308	.00031	.00012
%RSD	150.90	.10676	174.20	.13979	.18192

#1	.00002	.22531	-.00041	.21809	.06740
#2	-.00064	.22565	.00394	.21853	.06758

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	104.87	.00043	.0062	.00015
Stddev	.00004	.17	.00007	.0090	.00016
%RSD	97.217	.16583	16.556	145.5	102.55

#1	-.00001	104.74	.00038	.0126	.00004
#2	-.00008	104.99	.00048	-.0002	.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00563	.04131	1.9734	29.062	.03603
Stddev	.00002	.00028	.0092	.073	.00029
%RSD	.38175	.66782	.46542	.25235	.79283

#1	.00565	.04150	1.9799	29.010	.03623
#2	.00562	.04111	1.9669	29.114	.03582

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143941-H-1-A Acquired: 10/31/2018 13:58:37 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.279	.02353	.00967	F 1177.2	.00372
Stddev	.051	.00009	.00034	1.6	.00037
%RSD	.22071	.36778	3.5115	.13830	10.046

#1	23.243	.02347	.00943	1178.4	.00398
#2	23.316	.02359	.00991	1176.1	.00345

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00111	72.32	.00031	-.00715	5.7611
Stddev	.00006	.03	.00150	.00361	.0180
%RSD	5.4563	.0453	486.32	50.502	.31163

#1	.00115	72.29	.00137	-.00970	5.7738
#2	.00107	72.34	-.00075	-.00459	5.7484

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00203	.79978	.00203	.00326	.00219
Stddev	.00124	.00168	.00081	.00101	.00036
%RSD	61.139	.21004	40.096	31.018	16.557

#1	.00115	.80096	.00260	.00398	.00245
#2	.00290	.79859	.00145	.00255	.00193

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143941-H-1-A Acquired: 10/31/2018 13:58:37 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.23695**
 Stddev .00370
 %RSD 1.5610

#1 **.23433**
 #2 **.23957**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2147.5	3583.5	110050.	7556.4
Stddev	1.1	7.3	3.	22.0
%RSD	.05209	.20306	.00315	.29167

#1	2146.7	3588.7	110050.	7572.0
#2	2148.3	3578.4	110050.	7540.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.644%	86.871%	84.238%	95.442%
Range				

Sample Name: 480-144016-E-1-A Acquired: 10/31/2018 14:02:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	.00862	.00445	4.8609	.94737
Stddev	.00024	.01676	.00321	.0062	.00091
%RSD	42.116	194.36	72.129	.12772	.09573

#1	-.00040	.02048	.00218	4.8565	.94673
#2	-.00075	-.00323	.00672	4.8653	.94801

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	149.83	.00029	-.0001	.00989
Stddev	.00003	.04	.00002	.0266	.00019
%RSD	125.43	.02367	6.0383	24020.	1.9656

#1	-.00000	149.80	.00027	.0187	.00975
#2	-.00005	149.85	.00030	-.0189	.01003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00231	-.00040	24.730	53.966	.05084
Stddev	.00023	.00029	.005	.089	.00020
%RSD	9.7948	72.078	.01968	.16435	.38942

#1	.00215	-.00060	24.733	53.903	.05098
#2	.00247	-.00019	24.726	54.028	.05070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144016-E-1-A Acquired: 10/31/2018 14:02:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	181.61	.24415	.00008	583.32	.03222
Stddev	.44	.00151	.00014	.61	.00035
%RSD	.24085	.61922	173.33	.10382	1.0944

#1	181.92	.24522	-.00002	582.89	.03247
#2	181.30	.24309	.00018	583.75	.03197

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00042	11.75	.00132	-.00600	11.534
Stddev	.00123	.01	.00144	.00361	.009
%RSD	290.38	.0759	109.30	60.212	.08038

#1	-.00045	11.76	.00234	-.00856	11.540
#2	.00129	11.74	.00030	-.00345	11.527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00339	2.5997	.00095	.00240	.00195
Stddev	.00059	.0021	.00014	.00022	.00016
%RSD	17.340	.08249	15.266	9.1403	8.2772

#1	.00297	2.5982	.00085	.00224	.00207
#2	.00381	2.6012	.00105	.00255	.00184

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144016-E-1-A Acquired: 10/31/2018 14:02:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00209**
 Stddev .00030
 %RSD 14.428

#1 **.00188**
 #2 **.00231**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2181.1	3595.9	112750.	7585.5
Stddev	4.6	4.2	311.	6.1
%RSD	.21156	.11660	.27610	.08061

#1	2177.8	3592.9	112530.	7581.2
#2	2184.3	3598.8	112970.	7589.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.842%	87.170%	86.308%	95.810%
Range				

Sample Name: 480-144013-D-1-A Acquired: 10/31/2018 14:06:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.01883	.00475	12.456	.53015
Stddev	.00014	.00810	.00065	.016	.00116
%RSD	19.732	43.007	13.772	.12720	.21866

#1	-.00081	.01311	.00429	12.467	.53097
#2	-.00061	.02456	.00521	12.444	.52933

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	320.75	.00031	.0205	.00151
Stddev	.00002	1.09	.00005	.0257	.00023
%RSD	27.812	.34091	14.402	125.5	15.167

#1	-.00007	319.98	.00028	.0387	.00167
#2	-.00010	321.52	.00035	.0023	.00135

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01515	.00004	.68604	129.56	.07772
Stddev	.00025	.00007	.00029	.02	.00142
%RSD	1.6775	191.20	.04257	.01660	1.8249

#1	.01533	-.00001	.68624	129.58	.07672
#2	.01497	.00009	.68583	129.55	.07872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144013-D-1-A Acquired: 10/31/2018 14:06:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	225.89	.31894	.00029	365.61	.00178
Stddev	.41	.00070	.00013	.17	.00069
%RSD	.18357	.22053	46.154	.04673	38.530

#1	226.18	.31944	.00038	365.49	.00130
#2	225.60	.31845	.00019	365.73	.00227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00209	F 109.8	-.00245	-.01026	23.792
Stddev	.00021	.2	.00111	.00119	.045
%RSD	10.209	.1496	45.257	11.634	.18854

#1	.00224	109.9	-.00323	-.01110	23.824
#2	.00193	109.7	-.00166	-.00941	23.760

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	3.3249	.02138	.00215	.01888
Stddev	.00024	.0111	.00001	.00065	.00021
%RSD	894.73	.33233	.03590	30.363	1.1160

#1	.00020	3.3171	.02138	.00169	.01873
#2	-.00014	3.3328	.02137	.00261	.01902

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144013-D-1-A Acquired: 10/31/2018 14:06:28 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00136**
 Stddev .00001
 %RSD 1.0304

#1 **.00135**
 #2 **.00137**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2152.0	3525.4	112240.	7560.6
Stddev	1.4	4.4	250.	25.3
%RSD	.06545	.12360	.22293	.33491

#1	2153.0	3522.3	112070.	7578.5
#2	2151.0	3528.5	112420.	7542.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.806%	85.462%	85.918%	95.494%
Range				

Sample Name: 480-144021-G-1-A Acquired: 10/31/2018 14:10:32 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	1.3307	.00006	.06395	.07658
Stddev	.00032	.0234	.00227	.00040	.00021
%RSD	1012.1	1.7562	4050.8	.62270	.26863

#1	.00025	1.3472	.00166	.06423	.07672
#2	-.00019	1.3142	-.00155	.06367	.07643

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	94.226	.00019	-.0309	.00051
Stddev	.00007	.294	.00003	.0136	.00017
%RSD	78.653	.31225	15.220	43.95	32.925

#1	.00004	94.018	.00017	-.0405	.00063
#2	.00014	94.434	.00021	-.0213	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.00357	1.5766	4.5516	.00287
Stddev	.00013	.00013	.0025	.0110	.00011
%RSD	6.0573	3.6101	.15875	.24188	3.9947

#1	.00200	.00366	1.5748	4.5594	.00295
#2	.00217	.00348	1.5783	4.5438	.00279

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-1-A Acquired: 10/31/2018 14:10:32 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	27.433	.10525	.00085	32.258	.00117
Stddev	.033	.00017	.00004	.012	.00006
%RSD	.11962	.15923	5.1713	.03627	5.5556

#1	27.456	.10537	.00082	32.266	.00122
#2	27.410	.10513	.00088	32.250	.00112

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00298	19.57	-.00177	-.00321	5.7049
Stddev	.00034	.06	.00065	.00142	.0056
%RSD	11.263	.3151	36.682	44.137	.09815

#1	.00321	19.62	-.00223	-.00421	5.7088
#2	.00274	19.53	-.00131	-.00221	5.7009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	1.5507	.03096	.00065	.00207
Stddev	.00100	.0019	.00012	.00148	.00017
%RSD	375.01	.12435	.37169	228.94	8.1096

#1	-.00097	1.5521	.03104	-.00040	.00218
#2	.00044	1.5493	.03088	.00169	.00195

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-1-A Acquired: 10/31/2018 14:10:32 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02134**
 Stddev .00046
 %RSD 2.1745

#1 **.02101**
 #2 **.02167**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2520.8	3879.7	122320.	7745.4
Stddev	1.0	10.2	234.	1.2
%RSD	.04084	.26189	.19136	.01557

#1	2520.1	3872.5	122160.	7744.5
#2	2521.5	3886.9	122490.	7746.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.966%	94.051%	93.633%	97.829%
Range				

Sample Name: 480-144021-G-2-A Acquired: 10/31/2018 14:14:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.26765	.00172	.06783	.07834
Stddev	.00028	.00863	.00046	.00061	.00016
%RSD	58.672	3.2245	26.888	.90188	.20980

#1	-.00068	.26155	.00140	.06827	.07845
#2	-.00028	.27376	.00205	.06740	.07822

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	88.928	.00022	.0010	.00018
Stddev	.00006	.163	.00012	.0089	.00001
%RSD	99.668	.18280	54.070	865.0	4.1852

#1	-.00002	88.813	.00014	.0073	.00019
#2	-.00010	89.043	.00031	-.0052	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00090	.00189	.42963	25.211	.00233
Stddev	.00028	.00056	.00345	.002	.00111
%RSD	30.791	29.708	.80318	.00813	47.517

#1	.00070	.00149	.42719	25.213	.00311
#2	.00109	.00228	.43207	25.210	.00154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-2-A Acquired: 10/31/2018 14:14:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	27.130	.10776	.00273	23.311	.00173
Stddev	.024	.00038	.00013	.050	.00003
%RSD	.08795	.35302	4.8172	.21469	1.7318

#1	27.147	.10803	.00283	23.276	.00175
#2	27.113	.10749	.00264	23.347	.00171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	29.75	-.00011	-.00603	3.2405
Stddev	.00165	.05	.00067	.00158	.0091
%RSD	443.29	.1777	619.59	26.262	.28030

#1	.00154	29.79	.00037	-.00491	3.2341
#2	-.00079	29.71	-.00058	-.00715	3.2469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.94327	.00438	.00179	.00082
Stddev	.00058	.00202	.00046	.00055	.00008
%RSD	745.99	.21380	10.466	31.021	9.5406

#1	-.00033	.94184	.00471	.00218	.00077
#2	.00049	.94470	.00406	.00139	.00088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-2-A Acquired: 10/31/2018 14:14:20 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02768**
 Stddev .00007
 %RSD .24813

#1 **.02763**
 #2 **.02773**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2514.6	3885.4	122040.	7769.7
Stddev	2.6	7.7	227.	2.8
%RSD	.10295	.19772	.18616	.03542

#1	2516.4	3879.9	122200.	7771.6
#2	2512.7	3890.8	121880.	7767.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.744%	94.188%	93.416%	98.136%
Range				

Sample Name: 480-144021-G-3-A Acquired: 10/31/2018 14:18:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.19745	.00174	.03340	.05237
Stddev	.00015	.00701	.00176	.00005	.00004
%RSD	49.645	3.5508	101.27	.16185	.08138

#1	-.00041	.20241	.00049	.03344	.05234
#2	-.00020	.19250	.00299	.03336	.05240

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	52.126	.00016	.0076	-.00009
Stddev	.00004	.122	.00001	.0229	.00004
%RSD	33.534	.23436	7.1411	302.7	41.090

#1	-.00008	52.212	.00015	-.0086	-.00012
#2	-.00013	52.040	.00016	.0238	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00090	.26827	5.0911	.00121
Stddev	.00002	.00037	.00039	.0262	.00026
%RSD	2.5418	41.212	.14557	.51552	21.603

#1	.00059	.00116	.26855	5.0725	.00102
#2	.00061	.00064	.26799	5.1097	.00139

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-3-A Acquired: 10/31/2018 14:18:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.0310	.03801	.00152	31.830	.00053
Stddev	.0002	.00006	.00008	.052	.00025
%RSD	.00201	.16477	5.2322	.16251	47.714

#1	9.0309	.03806	.00147	31.866	.00071
#2	9.0311	.03797	.00158	31.793	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00182	13.46	-.00112	-.00204	.85626
Stddev	.00002	.01	.00016	.00139	.01046
%RSD	1.0113	.0445	13.922	68.168	1.2213

#1	.00181	13.46	-.00123	-.00302	.86365
#2	.00183	13.46	-.00101	-.00105	.84886

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00094	.32735	.00371	.00146	.00041
Stddev	.00017	.00031	.00002	.00055	.00031
%RSD	18.290	.09530	.46693	37.776	74.307

#1	-.00081	.32757	.00369	.00107	.00063
#2	-.00106	.32713	.00372	.00185	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-3-A Acquired: 10/31/2018 14:18:07 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00391**
 Stddev .00075
 %RSD 19.212

#1 **.00444**
 #2 **.00338**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2583.8	3962.2	123290.	7756.0
Stddev	5.0	10.0	162.	14.4
%RSD	.19339	.25306	.13161	.18582

#1	2587.3	3969.3	123180.	7745.8
#2	2580.3	3955.1	123410.	7766.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.215%	96.050%	94.374%	97.963%
Range				

Sample Name: 480-144021-G-4-A Acquired: 10/31/2018 14:21:55 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.18295	.00126	.04984	.08322
Stddev	.00058	.01466	.00153	.00028	.00028
%RSD	99.045	8.0111	120.77	.56284	.33418

#1	-.00017	.17258	.00234	.05004	.08341
#2	-.00099	.19331	.00018	.04964	.08302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	63.138	.00016	.0053	-.00005
Stddev	.00000	.089	.00002	.0054	.00008
%RSD	5.6802	.14164	13.784	101.9	164.96

#1	-.00007	63.075	.00017	.0092	-.00011
#2	-.00008	63.201	.00014	.0015	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00047	.17468	4.4694	.00365
Stddev	.00022	.00001	.00182	.0035	.00050
%RSD	42.196	1.1891	1.0421	.07859	13.626

#1	.00037	.00047	.17339	4.4669	.00400
#2	.00068	.00046	.17596	4.4719	.00329

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-4-A Acquired: 10/31/2018 14:21:55 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.762	.03852	.00151	18.533	.00116
Stddev	.009	.00008	.00011	.072	.00012
%RSD	.04989	.20638	7.0720	.38604	9.9322

#1	17.768	.03858	.00158	18.483	.00124
#2	17.755	.03847	.00143	18.584	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00072	31.61	-.00072	-.00526	2.1173
Stddev	.00074	.04	.00064	.00001	.0010
%RSD	103.48	.1235	89.022	.19732	.04741

#1	.00124	31.58	-.00027	-.00525	2.1166
#2	.00019	31.64	-.00117	-.00526	2.1180

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.46499	.00210	.00089	.00004
Stddev	.00093	.00221	.00016	.00124	.00016
%RSD	1836.1	.47525	7.6432	139.61	416.93

#1	.00061	.46343	.00222	.00001	-.00007
#2	-.00071	.46656	.00199	.00176	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144021-G-4-A Acquired: 10/31/2018 14:21:55 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00478**
 Stddev .00010
 %RSD 2.0760

#1 **.00485**
 #2 **.00471**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2576.2	3948.9	123190.	7795.9
Stddev	2.9	6.0	430.	21.9
%RSD	.11373	.15085	.34931	.28036

#1	2578.2	3953.1	122880.	7811.3
#2	2574.1	3944.7	123490.	7780.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.942%	95.728%	94.295%	98.467%
Range				

Sample Name: 480-143979-B-1-A Acquired: 10/31/2018 14:25:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	-.00322	.00774	.18455	.84272
Stddev	.00010	.00898	.00100	.00042	.00449
%RSD	18.723	279.25	12.857	.22977	.53289

#1	-.00058	-.00957	.00844	.18425	.83954
#2	-.00045	.00314	.00704	.18485	.84589

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	38.743	.00017	-.0043	-.00003
Stddev	.00007	.074	.00000	.0231	.00017
%RSD	2133.2	.19019	.19286	543.9	495.43

#1	-.00005	38.691	.00017	-.0206	.00008
#2	.00005	38.795	.00017	.0121	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.01030	.68553	1.4392	.04154
Stddev	.00023	.00013	.00454	.0056	.00062
%RSD	50.957	1.2970	.66267	.38906	1.4866

#1	.00028	.01021	.68875	1.4352	.04110
#2	.00060	.01040	.68232	1.4431	.04198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143979-B-1-A Acquired: 10/31/2018 14:25:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9359	.15354	.00540	79.165	.00614
Stddev	.0134	.00000	.00011	.269	.00036
%RSD	.13456	.00014	2.0884	.34034	5.8201

#1	9.9454	.15354	.00532	78.974	.00639
#2	9.9265	.15354	.00548	79.355	.00589

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00055	.0233	-.00157	-.00382	4.2705
Stddev	.00018	.0006	.00038	.00136	.0400
%RSD	32.324	2.569	23.865	35.625	.93751

#1	.00042	.0238	-.00184	-.00478	4.2422
#2	.00067	.0229	-.00131	-.00285	4.2988

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	1.1547	.00009	.00218	-.00034
Stddev	.00004	.0073	.00004	.00211	.00056
%RSD	44.170	.62766	46.676	96.849	165.39

#1	-.00013	1.1496	.00006	.00069	.00006
#2	-.00007	1.1598	.00012	.00367	-.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143979-B-1-A Acquired: 10/31/2018 14:25:43 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.06295**
 Stddev .00082
 %RSD 1.2958

#1 **.06352**
 #2 **.06237**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2542.9	3939.7	122250.	7713.6
Stddev	4.3	14.1	23.	24.7
%RSD	.16971	.35687	.01854	.32076

#1	2545.9	3949.7	122240.	7731.1
#2	2539.8	3929.8	122270.	7696.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.755%	95.506%	93.578%	97.427%
Range				

Sample Name: blank Acquired: 10/31/2018 14:29:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00201	-.00057	.00284	-.00001
Stddev	.00034	.00591	.00196	.00011	.00000
%RSD	2489.8	293.69	345.72	3.8733	8.6435

#1	.00023	.00217	-.00195	.00292	-.00001
#2	-.00026	-.00619	.00082	.00276	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00505	.00005	-.0124	-.00007
Stddev	.00008	.00531	.00001	.0047	.00014
%RSD	561.39	105.12	24.920	38.16	195.51

#1	-.00007	.00881	.00004	-.0158	.00003
#2	.00004	.00130	.00006	-.0091	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00021	-.00121	-.03459	.00023
Stddev	.00027	.00016	.00075	.00236	.00066
%RSD	459.64	79.087	61.747	6.8237	283.46

#1	-.00013	-.00009	-.00068	-.03292	-.00023
#2	.00025	-.00032	-.00174	-.03626	.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 14:29:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00270	.00005	-.00029	.11149	.00002
Stddev	.00177	.00013	.00005	.01258	.00021
%RSD	65.502	259.06	15.916	11.282	1056.2

#1	-.00145	-.00004	-.00026	.10260	.00017
#2	-.00395	.00014	-.00033	.12039	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.0047	-.00081	-.00101	-.04308
Stddev	.00025	.0003	.00020	.00005	.00109
%RSD	199.74	6.660	24.865	4.8342	2.5382

#1	.00031	.0050	-.00067	-.00105	-.04385
#2	-.00005	.0045	-.00095	-.00098	-.04230

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00002	-.00000	.00037	-.00020
Stddev	.00057	.00000	.00015	.00019	.00004
%RSD	355.06	8.1857	5976.4	51.899	19.661

#1	-.00024	-.00002	.00011	.00051	-.00022
#2	.00057	-.00002	-.00011	.00023	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 14:29:38 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00089**
 Stddev .00060
 %RSD 67.701

#1 **.00132**
 #2 **.00046**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2723.8	4060.3	126650.	7743.8
Stddev	2.4	3.1	113.	11.0
%RSD	.08828	.07672	.08913	.14170

#1	2722.1	4062.5	126570.	7751.6
#2	2725.5	4058.1	126730.	7736.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.213%	98.428%	96.943%	97.809%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 14:33:31 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51092	25.198	.48297	.46833	.51571	.50031	24.787	.48629
Stddev	.00028	.145	.00290	.00028	.00012	.00188	.028	.00019
%RSD	.05495	.57532	.60082	.05902	.02274	.37568	.11112	.03945
#1	.51112	25.096	.48092	.46813	.51563	.49899	24.767	.48615
#2	.51072	25.301	.48502	.46852	.51579	.50164	24.806	.48643

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0322	.49081	.51820	.50911	25.404	24.897	.49111	24.671
Stddev	.0102	.00063	.00103	.00077	.102	.075	.00090	.026
%RSD	31.54	.12815	.19885	.15090	.40097	.30251	.18391	.10495
#1	.0250	.49036	.51747	.50856	25.332	24.844	.49047	24.689
#2	.0394	.49125	.51893	.50965	25.476	24.950	.49175	24.652

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52295	.48853	25.653	.50068	.48368	24.41	.48661	.49029
Stddev	.00019	.00067	.113	.00006	.00021	.07	.00152	.00201
%RSD	.03707	.13686	.43926	.01214	.04298	.3047	.31176	.40906
#1	.52281	.48900	25.573	.50064	.48382	24.47	.48768	.49171
#2	.52309	.48806	25.733	.50073	.48353	24.36	.48554	.48887

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/31/2018 14:33:31 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.519	.50141	.53605	.50261	.48277	.52377	.49431
Stddev	.182	.00197	.00304	.00010	.00037	.00137	.00204
%RSD	.74049	.39383	.56639	.02061	.07590	.26079	.41352
#1	24.391	.50280	.53390	.50268	.48251	.52474	.49575
#2	24.648	.50001	.53820	.50254	.48303	.52281	.49286

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2553.8	3939.1	122140.	7671.8
Stddev	3.1	4.5	60.	40.0
%RSD	.12159	.11471	.04933	.52114
#1	2551.6	3935.9	122100.	7700.1
#2	2556.0	3942.3	122180.	7643.5

Sample Name: CCB-4957862 Acquired: 10/31/2018 14:37:15 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	-.00508	.00074	.00177	-.00001	-.00007	.00183	.00003
Stddev	.00003	.01602	.00077	.00024	.00001	.00003	.00287	.00003
%RSD	7.7799	315.19	104.91	13.580	154.10	38.212	156.87	83.659

#1	-.00034	.00624	.00128	.00160	-.00001	-.00005	-.00020	.00005
#2	-.00037	-.01641	.00019	.00194	.00000	-.00009	.00385	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0167	.00006	.00013	-.00022	.00304	.00150	.00073	.00141
Stddev	.0055	.00008	.00036	.00007	.00408	.00229	.00004	.00103
%RSD	32.66	122.43	282.21	30.738	134.29	152.58	6.0652	72.771

#1	-.0205	.00001	-.00013	-.00027	.00592	.00312	.00070	.00213
#2	-.0128	.00012	.00038	-.00017	.00015	-.00012	.00076	.00068

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.00031	.06078	.00007	.00034	.0051	-.00053	-.00169
Stddev	.00006	.00003	.00626	.00021	.00154	.0007	.00031	.00116
%RSD	263.85	9.2222	10.293	300.56	448.87	12.96	59.821	68.623

#1	-.00002	.00029	.06521	-.00008	.00144	.0056	-.00075	-.00251
#2	.00007	.00033	.05636	.00022	-.00075	.0047	-.00030	-.00087

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 14:37:15 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04267	-0.00058	-0.00012	.00018	.00008	-0.00001	.00109
Stddev	.02609	.00056	.00002	.00003	.00032	.00006	.00016
%RSD	61.139	97.199	17.459	15.807	410.62	520.33	14.345

#1	-0.02422	-0.00098	-0.00013	.00020	-0.00015	-0.00006	.00098
#2	-0.06111	-0.00018	-0.00010	.00016	.00031	.00003	.00120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2724.7	4077.6	127080.	7830.9
Stddev	2.4	6.5	134.	29.0
%RSD	.08712	.15841	.10505	.37045

#1	2723.1	4073.0	126990.	7810.4
#2	2726.4	4082.1	127180.	7851.4

Sample Name: CCVL-4970377 Acquired: 10/31/2018 14:41:08 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00560	.17860	.01361	.02072	.00210	.00203	.50692	.00207
Stddev	.00028	.03015	.00025	.00041	.00000	.00004	.00273	.00007
%RSD	5.0883	16.879	1.8039	1.9726	.00875	1.8124	.53886	3.5508

#1	.00580	.19992	.01344	.02043	.00210	.00201	.50498	.00212
#2	.00540	.15729	.01379	.02101	.00210	.00206	.50885	.00201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0097	.00387	.00410	.00867	.05327	.44701	.02639	.20324
Stddev	.0131	.00003	.00002	.00024	.00118	.00716	.00036	.00199
%RSD	135.6	.83344	.52714	2.7419	2.2159	1.6026	1.3689	.97781

#1	.0189	.00384	.00412	.00850	.05243	.45207	.02665	.20465
#2	.0004	.00389	.00409	.00884	.05410	.44194	.02614	.20184

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00313	.00927	1.0302	.01015	.00935	.1948	.01743	.02109
Stddev	.00004	.00003	.0087	.00020	.00008	.0027	.00023	.00213
%RSD	1.3298	.37665	.84177	1.9737	.89349	1.411	1.3418	10.087

#1	.00310	.00925	1.0241	.01001	.00929	.1929	.01726	.02260
#2	.00316	.00930	1.0363	.01029	.00941	.1967	.01759	.01959

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 14:41:08 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42160	.00872	.00524	.00486	.02008	.00502	.01019
Stddev	.00068	.00057	.00006	.00021	.00058	.00022	.00062
%RSD	.16176	6.5866	1.0763	4.3906	2.8823	4.2994	6.0693

#1	.42112	.00831	.00520	.00501	.02049	.00517	.01063
#2	.42208	.00913	.00528	.00471	.01967	.00487	.00975

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2727.4	4098.6	126920.	7790.9
Stddev	3.6	13.0	411.	33.0
%RSD	.13071	.31640	.32407	.42345

#1	2729.9	4107.8	126630.	7814.3
#2	2724.8	4089.5	127210.	7767.6

Sample Name: MB 480-441986/1-A Acquired: 10/31/2018 14:44:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00132	.00046	.00123	.00007
Stddev	.00041	.00255	.00181	.00023	.00000
%RSD	1547.2	192.79	397.11	19.045	6.1334

#1	.00032	.00313	.00174	.00139	.00007
#2	-.00026	-.00048	-.00082	.00106	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.03291	-.00001	-.0052	.00006
Stddev	.00008	.00038	.00005	.0290	.00003
%RSD	65.244	1.1671	487.68	560.8	52.633

#1	-.00018	.03318	-.00005	.0153	.00004
#2	-.00007	.03264	.00003	-.0257	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00010	.00433	-.00805	.00009
Stddev	.00006	.00002	.00196	.03307	.00003
%RSD	9.8073	23.272	45.246	410.54	33.745

#1	.00064	.00012	.00572	-.03144	.00007
#2	.00055	.00008	.00295	.01533	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441986/1-A Acquired: 10/31/2018 14:44:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.00050	-.00028	.06385	.00015
Stddev	.00150	.00001	.00001	.00151	.00012
%RSD	400.07	2.6559	2.7274	2.3578	78.453

#1	-.00068	.00051	-.00028	.06278	.00007
#2	.00143	.00049	-.00027	.06491	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.0113	-.00252	-.00072	-.06495
Stddev	.00146	.0011	.00076	.00170	.00162
%RSD	7116.1	9.319	30.295	236.34	2.5004

#1	.00101	.0121	-.00198	.00048	-.06610
#2	-.00105	.0106	-.00305	-.00192	-.06380

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	-.00000	.00002	.00003	.00012
Stddev	.00041	.00005	.00012	.00065	.00003
%RSD	160.84	8664.2	669.80	2152.1	28.565

#1	-.00055	-.00003	-.00007	.00049	.00009
#2	.00004	.00003	.00010	-.00043	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441986/1-A Acquired: 10/31/2018 14:44:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00215**
Stddev .00007
%RSD 3.0699

#1 **.00210**
#2 **.00220**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2757.3	4143.0	129620.	8051.2
Stddev	1.4	5.6	412.	15.8
%RSD	.04974	.13502	.31786	.19623

#1	2756.3	4139.0	129910.	8040.1
#2	2758.3	4146.9	129330.	8062.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.408%	100.43%	99.218%	101.69%
Range				

Sample Name: LCS 480-441986/2-A Acquired: 10/31/2018 14:48:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04910	9.8729	.19362	.19033	.20224
Stddev	.00055	.0268	.00097	.00049	.00001
%RSD	1.1231	.27171	.50104	.25517	.00274

#1	.04949	9.8918	.19294	.18999	.20224
#2	.04871	9.8539	.19431	.19067	.20224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20183	9.5763	.19183	-.0151	.18695
Stddev	.00014	.0144	.00063	.0009	.00038
%RSD	.06949	.15006	.32881	5.941	.20365

#1	.20192	9.5865	.19139	-.0145	.18668
#2	.20173	9.5662	.19228	-.0158	.18722

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20058	.19157	9.9297	9.3754	.18698
Stddev	.00115	.00043	.0275	.0500	.00035
%RSD	.57091	.22509	.27716	.53373	.18842

#1	.19977	.19187	9.9103	9.4108	.18673
#2	.20139	.19126	9.9492	9.3400	.18723

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441986/2-A Acquired: 10/31/2018 14:48:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.7140	.19784	.18508	9.7409	.20067
Stddev	.0026	.00079	.00007	.0006	.00046
%RSD	.02642	.39842	.03848	.00629	.23095

#1	9.7122	.19728	.18503	9.7404	.20034
#2	9.7158	.19840	.18513	9.7413	.20100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18895	9.293	.18696	.19429	9.3809
Stddev	.00075	.009	.00076	.00564	.0262
%RSD	.39840	.0990	.40674	2.9013	.27893

#1	.18842	9.286	.18750	.19031	9.3624
#2	.18949	9.299	.18643	.19828	9.3994

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18945	.20669	.19300	.18896	.20290
Stddev	.00020	.00023	.00025	.00078	.00004
%RSD	.10320	.11032	.12971	.41117	.02099

#1	.18959	.20653	.19282	.18841	.20293
#2	.18931	.20685	.19318	.18951	.20287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441986/2-A Acquired: 10/31/2018 14:48:50 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20039**
 Stddev .00200
 %RSD .99648

#1 **.19898**
 #2 **.20180**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2669.0	4079.5	126740.	7954.5
Stddev	1.8	6.0	260.	11.8
%RSD	.06739	.14742	.20528	.14783

#1	2670.2	4083.8	126930.	7962.9
#2	2667.7	4075.2	126560.	7946.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.255%	98.894%	97.017%	100.47%
Range				

Sample Name: 480-144063-L-1-A Acquired: 10/31/2018 14:52:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	5.0262	.00377	.04752	.01643
Stddev	.00011	.0072	.00055	.00032	.00000
%RSD	18.208	.14314	14.522	.67227	.03020

#1	-.00068	5.0211	.00415	.04729	.01642
#2	-.00053	5.0313	.00338	.04775	.01643

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	14.764	.00019	.0145	.00165
Stddev	.00005	.058	.00009	.0209	.00013
%RSD	557.14	.39098	47.629	144.5	7.8863

#1	.00005	14.723	.00025	-.0003	.00174
#2	-.00003	14.804	.00013	.0292	.00156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05194	.09866	15.818	10.153	.01832
Stddev	.00038	.00051	.016	.054	.00078
%RSD	.73442	.51336	.09851	.52812	4.2344

#1	.05167	.09831	15.807	10.115	.01777
#2	.05221	.09902	15.829	10.191	.01887

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144063-L-1-A Acquired: 10/31/2018 14:52:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	59.981	.04579	.00559	F 1741.7	.06548
Stddev	.007	.00004	.00010	1.0	.00013
%RSD	.01186	.08014	1.8792	.05647	.19621

#1	59.976	.04582	.00566	1741.1	.06557
#2	59.986	.04577	.00551	1742.4	.06539

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00489	F 1002.	.00071	-.00619	5.8440
Stddev	.00065	.	.00073	.00041	.0054
%RSD	13.319	.0382	103.82	6.6412	.09299

#1	.00443	1003.	.00123	-.00648	5.8402
#2	.00535	1002.	.00019	-.00590	5.8479

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.14522	.04144	.00162	.02956
Stddev	.00037	.00005	.00231	.00053	.00009
%RSD	177.14	.03296	5.5834	32.923	.29052

#1	.00047	.14525	.04308	.00199	.02962
#2	-.00005	.14518	.03980	.00124	.02950

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144063-L-1-A Acquired: 10/31/2018 14:52:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.04907**
 Stddev .00042
 %RSD .84772

#1 **.04878**
 #2 **.04937**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2103.4	3606.4	108750.	7552.5
Stddev	.6	2.7	33.	12.2
%RSD	.03008	.07364	.02997	.16099

#1	2103.8	3608.3	108720.	7561.1
#2	2102.9	3604.6	108770.	7543.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.069%	87.426%	83.240%	95.392%
Range				

Sample Name: 480-144066-L-1-A Acquired: 10/31/2018 14:56:22 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.81628	.00278	.04242	.16758
Stddev	.00021	.02139	.00246	.00016	.00030
%RSD	86.263	2.6198	88.537	.37739	.17820

#1	-.00009	.83140	.00104	.04230	.16779
#2	-.00039	.80116	.00452	.04253	.16736

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	37.210	.00021	-.0186	.00004
Stddev	.00015	.021	.00004	.0033	.00015
%RSD	106.40	.05567	20.731	17.58	351.93

#1	-.00004	37.196	.00025	-.0163	-.00006
#2	-.00025	37.225	.00018	-.0209	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00301	.01749	.36560	2.9744	.00310
Stddev	.00027	.00033	.00147	.0379	.00033
%RSD	9.1067	1.8640	.40283	1.2753	10.681

#1	.00320	.01726	.36664	3.0012	.00333
#2	.00282	.01772	.36456	2.9476	.00286

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144066-L-1-A Acquired: 10/31/2018 14:56:22 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.2946	.00759	.00110	28.532	.00271
Stddev	.0271	.00005	.00016	.015	.00022
%RSD	.32659	.70890	14.195	.05299	8.1013

#1	8.3137	.00755	.00121	28.522	.00256
#2	8.2754	.00763	.00099	28.543	.00287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	14.72	.11678	-.00007	1.0149
Stddev	.00057	.01	.00062	.00087	.0030
%RSD	122.54	.0884	.53089	1268.7	.29358

#1	-.00087	14.73	.11722	-.00068	1.0128
#2	-.00006	14.71	.11635	.00055	1.0170

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.16494	.52211	.00210	.00053
Stddev	.00091	.00017	.00966	.00050	.00013
%RSD	183.06	.10253	1.8509	23.758	25.010

#1	.00114	.16482	.52894	.00175	.00044
#2	-.00015	.16506	.51528	.00246	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144066-L-1-A Acquired: 10/31/2018 14:56:22 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.35914**
 Stddev .00280
 %RSD .78102

#1 **.35716**
 #2 **.36112**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2598.7	3987.4	124210.	7877.1
Stddev	2.8	2.9	52.	3.8
%RSD	.10934	.07278	.04227	.04825

#1	2596.7	3985.4	124250.	7874.4
#2	2600.7	3989.5	124180.	7879.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.747%	96.662%	95.080%	99.493%
Range				

Sample Name: 480-144111-G-1-A@10 Acquired: 10/31/2018 15:00:10 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	.01652	.00266	.06482	1.4549
Stddev	.00016	.03110	.00262	.00025	.0014
%RSD	23.770	188.30	98.282	.39134	.09612

#1	-.00056	.03851	.00081	.06500	1.4559
#2	-.00078	-.00548	.00452	.06464	1.4539

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	F 1021.5	.00020	.0205	-.00059
Stddev	.00001	1.1	.00004	.0375	.00020
%RSD	39.937	.11071	20.675	182.7	34.336

#1	-.00002	1022.3	.00023	.0470	-.00073
#2	-.00004	1020.7	.00017	-.0060	-.00045

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00088	2.9899	F 729.52	.05071
Stddev	.00006	.00001	.0161	.38	.00079
%RSD	15.539	1.0758	.53865	.05229	1.5561

#1	.00036	.00087	2.9785	729.79	.05015
#2	.00045	.00088	3.0013	729.25	.05127

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				540.00	
Low Limit				-.50000	

Sample Name: 480-144111-G-1-A@10 Acquired: 10/31/2018 15:00:10 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.4352	.78328	.00086	F 1677.4	.00082
Stddev	.0053	.00111	.00003	.1	.00017
%RSD	.21644	.14171	3.4384	.00424	20.612

#1	2.4315	.78249	.00088	1677.5	.00070
#2	2.4389	.78406	.00084	1677.4	.00093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00319	7.575	.00095	-.01796	.83398
Stddev	.00300	.021	.00110	.00123	.01507
%RSD	94.143	.2746	115.76	6.8419	1.8067

#1	-.00531	7.589	.00173	-.01883	.82333
#2	-.00107	7.560	.00017	-.01709	.84463

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00088	F 9.0336	-.00121	.00129	.00101
Stddev	.00086	.0832	.00063	.00091	.00028
%RSD	97.067	.92045	52.038	70.915	27.706

#1	.00028	9.0924	-.00165	.00194	.00081
#2	.00149	8.9748	-.00076	.00064	.00120

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-144111-G-1-A@10 Acquired: 10/31/2018 15:00:10 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00516**
 Stddev .00018
 %RSD 3.4007

#1 **.00528**
 #2 **.00503**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1868.0	3289.4	100820.	7022.9
Stddev	.2	2.2	218.	11.2
%RSD	.01293	.06738	.21625	.15884

#1	1867.8	3287.8	100660.	7015.0
#2	1868.2	3290.9	100970.	7030.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.668%	79.740%	77.172%	88.703%
Range				

Sample Name: 480-144111-G-3-A@10 Acquired: 10/31/2018 15:04:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.00876	.00522	.03734	1.2427
Stddev	.00043	.03060	.00352	.00000	.0009
%RSD	84.475	349.25	67.415	.00531	.07319

#1	-.00021	-.01288	.00771	.03735	1.2433
#2	-.00082	.03040	.00273	.03734	1.2420

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	873.83	.00021	.0140	.00000
Stddev	.00005	7.88	.00005	.0044	.00006
%RSD	59.797	.90201	25.695	31.35	17120.

#1	-.00012	868.26	.00025	.0171	.00004
#2	-.00005	879.40	.00018	.0109	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00104	.00425	8.2773	F 655.59	.02490
Stddev	.00033	.00007	.0047	3.84	.00009
%RSD	31.720	1.6388	.05682	.58547	.35649

#1	.00081	.00420	8.2807	652.88	.02484
#2	.00127	.00430	8.2740	658.30	.02496

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				540.00	
Low Limit				-.50000	

Sample Name: 480-144111-G-3-A@10 Acquired: 10/31/2018 15:04:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.4321	.56320	.00040	F 1417.9	.00205
Stddev	.0129	.00231	.00005	2.8	.00064
%RSD	.53177	.41103	12.615	.19940	31.156

#1	2.4230	.56157	.00037	1419.9	.00250
#2	2.4413	.56484	.00044	1415.9	.00160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00335	1.169	-.00209	-.01358	.77836
Stddev	.00021	.007	.00042	.00332	.00098
%RSD	6.1844	.6048	20.055	24.423	.12565

#1	-.00350	1.174	-.00180	-.01593	.77905
#2	-.00320	1.164	-.00239	-.01124	.77767

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	8.5376	-.00125	.00065	.00037
Stddev	.00064	.0146	.00008	.00039	.00012
%RSD	113.94	.17076	6.7942	60.317	33.144

#1	.00011	8.5273	-.00119	.00037	.00028
#2	.00102	8.5479	-.00131	.00093	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144111-G-3-A@10 Acquired: 10/31/2018 15:04:26 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00605**
 Stddev .00052
 %RSD 8.6642

#1 **.00643**
 #2 **.00568**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1912.7	3361.0	102410.	7047.2
Stddev	2.7	.7	309.	1.0
%RSD	.14046	.02082	.30183	.01402

#1	1914.6	3361.5	102630.	7047.9
#2	1910.8	3360.5	102190.	7046.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	68.265%	81.476%	78.388%	89.010%
Range				

Sample Name: 480-144113-G-1-A Acquired: 10/31/2018 15:08:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	1.5819	1.2687	7.6858	.81968
Stddev	.00001	.0272	.0077	.0078	.00369
%RSD	2.2935	1.7189	.60592	.10101	.45015

#1	-0.00049	1.5626	1.2632	7.6913	.81708
#2	-0.00051	1.6011	1.2741	7.6803	.82229

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	209.40	.00144	-.0057	.00116
Stddev	.00014	.66	.00004	.0253	.00018
%RSD	5154.3	.31656	2.8598	447.4	15.855

#1	-0.00010	208.93	.00147	.0122	.00129
#2	.00010	209.87	.00141	-.0236	.00103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00368	.01591	6.8608	53.192	.03367
Stddev	.00015	.00023	.0222	.050	.00014
%RSD	4.0021	1.4238	.32402	.09398	.41481

#1	.00378	.01575	6.8451	53.227	.03377
#2	.00358	.01607	6.8766	53.156	.03357

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144113-G-1-A Acquired: 10/31/2018 15:08:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	119.57	1.2362	.00171	546.55	.01694
Stddev	.03	.0010	.00037	2.40	.00010
%RSD	.02778	.08021	21.887	.43870	.61435

#1	119.59	1.2369	.00144	544.85	.01686
#2	119.55	1.2355	.00197	548.24	.01701

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00836	44.31	-.00077	-.00753	17.877
Stddev	.00105	.04	.00020	.00139	.108
%RSD	12.520	.0947	26.612	18.456	.60387

#1	.00910	44.34	-.00091	-.00655	17.801
#2	.00762	44.28	-.00062	-.00852	17.954

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00153	.65297	.01276	.00229	.00391
Stddev	.00103	.00319	.00043	.00016	.00008
%RSD	67.575	.48886	3.3341	7.0091	1.9936

#1	.00226	.65071	.01246	.00240	.00397
#2	.00080	.65522	.01306	.00217	.00385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144113-G-1-A Acquired: 10/31/2018 15:08:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.06004**
Stddev .00055
%RSD .92006

#1 **.06044**
#2 **.05965**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2184.9	3613.3	112270.	7561.4
Stddev	1.2	1.3	229.	24.0
%RSD	.05472	.03663	.20364	.31691

#1	2184.1	3612.4	112110.	7578.3
#2	2185.8	3614.2	112430.	7544.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.980%	87.593%	85.936%	95.505%
Range				

Sample Name: 480-144132-J-1-A Acquired: 10/31/2018 15:12:40 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	-.00310	.00687	.16917	.43066
Stddev	.00005	.02864	.00049	.00007	.00065
%RSD	9.7198	922.62	7.1914	.04068	.15166

#1	-.00060	-.02336	.00652	.16922	.43019
#2	-.00052	.01715	.00722	.16912	.43112

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	146.46	.00019	-.0078	.00041
Stddev	.00005	.63	.00012	.0304	.00008
%RSD	134.80	.43014	64.898	391.4	18.561

#1	-.00008	146.91	.00010	-.0293	.00046
#2	-.00000	146.02	.00027	.0137	.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00460	1.5774	6.2039	.02230
Stddev	.00021	.00049	.0211	.0168	.00015
%RSD	92.315	10.603	1.3355	.27021	.67466

#1	.00038	.00495	1.5923	6.2157	.02220
#2	.00008	.00426	1.5625	6.1920	.02241

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144132-J-1-A Acquired: 10/31/2018 15:12:40 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.280	2.4055	.00088	182.07	.00174
Stddev	.028	.0025	.00002	.05	.00021
%RSD	.05857	.10529	2.2560	.02905	12.127

#1	47.299	2.4073	.00087	182.03	.00159
#2	47.260	2.4038	.00090	182.11	.00189

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00131	20.44	-.00127	-.00575	6.6399
Stddev	.00189	.00	.00027	.00317	.0286
%RSD	144.87	.0024	21.464	55.196	.43077

#1	-.00003	20.44	-.00146	-.00351	6.6197
#2	.00264	20.44	-.00108	-.00800	6.6601

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	2.3254	-.00051	.00057	-.00020
Stddev	.00008	.0085	.00046	.00005	.00050
%RSD	12.627	.36420	89.697	8.6377	243.72

#1	-.00066	2.3314	-.00084	.00060	.00015
#2	-.00055	2.3194	-.00019	.00053	-.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144132-J-1-A Acquired: 10/31/2018 15:12:40 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.01369**
Stddev .00018
%RSD 1.3325

#1 **.01356**
#2 **.01382**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2394.9	3816.8	118650.	7672.1
Stddev	.6	1.5	141.	39.6
%RSD	.02511	.03982	.11863	.51635

#1	2394.5	3815.7	118550.	7644.0
#2	2395.4	3817.9	118750.	7700.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.474%	92.526%	90.822%	96.903%
Range				

Sample Name: 480-144132-J-3-A Acquired: 10/31/2018 15:16:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	-.00754	.00148	.16499	.41229
Stddev	.00057	.00806	.00169	.00002	.00309
%RSD	137.93	106.97	114.35	.00971	.74942

#1	-.00001	-.01324	.00028	.16498	.41011
#2	-.00081	-.00184	.00268	.16500	.41448

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	146.34	.00025	-.0043	.00038
Stddev	.00008	.34	.00012	.0154	.00011
%RSD	157.57	.23462	48.436	355.6	27.929

#1	.00001	146.58	.00034	-.0153	.00031
#2	-.00011	146.09	.00017	.0066	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.01627	.31721	6.0322	.02329
Stddev	.00025	.00060	.00357	.0031	.00011
%RSD	34.337	3.6570	1.1252	.05207	.45906

#1	.00089	.01669	.31469	6.0345	.02336
#2	.00054	.01585	.31974	6.0300	.02321

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144132-J-3-A Acquired: 10/31/2018 15:16:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.491	2.0002	.00103	184.33	.00194
Stddev	.060	.0011	.00005	.45	.00003
%RSD	.12596	.05585	4.7992	.24286	1.7645

#1	47.534	1.9995	.00107	184.65	.00196
#2	47.449	2.0010	.00100	184.02	.00191

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00190	20.40	-.00104	-.00372	6.5905
Stddev	.00052	.06	.00183	.00028	.0034
%RSD	27.484	.2773	175.34	7.5526	.05235

#1	.00153	20.36	-.00234	-.00352	6.5881
#2	.00227	20.44	.00025	-.00392	6.5930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	2.3376	-.00032	.00149	-.00008
Stddev	.00018	.0071	.00009	.00051	.00025
%RSD	65.985	.30308	28.215	34.396	314.01

#1	.00014	2.3426	-.00038	.00113	-.00026
#2	.00039	2.3326	-.00025	.00185	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144132-J-3-A Acquired: 10/31/2018 15:16:39 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01415**
 Stddev .00062
 %RSD 4.4026

#1 **.01371**
 #2 **.01459**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2387.2	3827.1	118300.	7663.9
Stddev	1.1	6.9	30.	13.8
%RSD	.04471	.18068	.02534	.18059

#1	2388.0	3832.0	118320.	7654.2
#2	2386.5	3822.3	118280.	7673.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.200%	92.776%	90.554%	96.800%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 15:20:39 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51100	25.550	.47631	.46433	.52096	.50529	24.938	.48072
Stddev	.00119	.037	.00136	.00080	.00078	.00045	.044	.00052
%RSD	.23366	.14625	.28577	.17134	.14897	.08945	.17598	.10775
#1	.51185	25.524	.47727	.46490	.52150	.50561	24.969	.48035
#2	.51016	25.577	.47535	.46377	.52041	.50497	24.907	.48109

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0125	.49160	.52330	.51166	25.702	25.369	.49494	24.684
Stddev	.0053	.00025	.00180	.00085	.008	.009	.00170	.081
%RSD	42.36	.05038	.34389	.16564	.03139	.03426	.34442	.32933
#1	-.0088	.49178	.52458	.51226	25.708	25.363	.49374	24.742
#2	-.0163	.49143	.52203	.51106	25.696	25.375	.49615	24.627

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52809	.48257	26.334	.50561	.48570	24.14	.48292	.48646
Stddev	.00063	.00006	.078	.00027	.00082	.01	.00051	.00209
%RSD	.11937	.01224	.29615	.05434	.16919	.0248	.10527	.43040
#1	.52853	.48253	26.279	.50542	.48511	24.13	.48328	.48794
#2	.52764	.48262	26.389	.50581	.48628	24.14	.48256	.48498

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/31/2018 15:20:39 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.574	.50018	.54773	.50474	.48344	.53209	.49389
Stddev	.004	.00016	.00131	.00053	.00023	.00175	.00183
%RSD	.01698	.03293	.23854	.10462	.04684	.32886	.37011
#1	24.571	.50007	.54681	.50437	.48328	.53332	.49519
#2	24.577	.50030	.54865	.50512	.48360	.53085	.49260

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2546.6	3968.6	121240.	7554.1
Stddev	3.5	2.3	160.	3.1
%RSD	.13740	.05780	.13196	.04038
#1	2544.1	3967.0	121130.	7556.3
#2	2549.1	3970.3	121350.	7551.9

Sample Name: CCB-4957862 Acquired: 10/31/2018 15:24:22 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.00607	.00102	.00263	-.00001	-.00004	.00473	-.00004
Stddev	.00002	.00598	.00003	.00016	.00001	.00006	.00285	.00013
%RSD	3.9327	98.553	2.8845	6.1843	117.82	128.47	60.263	296.78

#1	-.00041	.01029	.00104	.00274	-.00000	-.00000	.00272	.00005
#2	-.00043	.00184	.00100	.00251	-.00002	-.00009	.00675	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0357	-.00006	.00017	-.00090	.00247	.09283	.00018	-.00457
Stddev	.0176	.00006	.00030	.00028	.00348	.00651	.00062	.00241
%RSD	49.24	100.12	183.12	31.353	140.69	7.0106	346.36	52.704

#1	-.0233	-.00011	.00038	-.00070	.00001	.08823	-.00026	-.00627
#2	-.0482	-.00002	-.00005	-.00110	.00493	.09743	.00062	-.00287

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00027	.21367	.00007	.00045	.0279	-.00118	-.00419
Stddev	.00006	.00013	.01217	.00005	.00076	.0025	.00073	.00199
%RSD	151.26	50.081	5.6944	62.970	170.57	9.071	61.874	47.410

#1	-.00000	.00017	.22228	.00004	.00098	.0297	-.00170	-.00560
#2	.00008	.00036	.20507	.00010	-.00009	.0261	-.00067	-.00279

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 15:24:22 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02983	.00005	-.00004	-.00008	-.00052	-.00032	.00098
Stddev	.00252	.00039	.00002	.00019	.00117	.00008	.00028
%RSD	8.4476	807.60	41.797	238.72	224.68	26.325	28.276

#1	-.03161	-.00023	-.00005	.00006	-.00135	-.00026	.00078
#2	-.02804	.00032	-.00003	-.00021	.00031	-.00037	.00118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2736.7	4123.9	127370.	7789.9
Stddev	5.7	10.8	284.	29.9
%RSD	.20896	.26173	.22289	.38365

#1	2732.6	4116.3	127570.	7811.0
#2	2740.7	4131.6	127170.	7768.8

Sample Name: CCVL-4970377 Acquired: 10/31/2018 15:31:38 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00580	.19400	.01520	.02052	.00208	.00194	.50024	.00199
Stddev	.00036	.01197	.00162	.00021	.00000	.00001	.00136	.00009
%RSD	6.1856	6.1701	10.652	1.0032	.24047	.47514	.27232	4.4478

#1	.00555	.18553	.01405	.02067	.00208	.00194	.50120	.00206
#2	.00606	.20246	.01634	.02038	.00207	.00195	.49927	.00193

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0011	.00393	.00396	.00877	.05285	.52670	.02840	.19850
Stddev	.0150	.00004	.00035	.00041	.00164	.00243	.00035	.00305
%RSD	1332.	.97688	8.9237	4.6614	3.1122	.46093	1.2240	1.5368

#1	-.0117	.00395	.00371	.00906	.05401	.52841	.02815	.19634
#2	.0095	.00390	.00421	.00848	.05168	.52498	.02864	.20066

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00316	.00916	1.1351	.01026	.01077	.2059	.01720	.02388
Stddev	.00002	.00020	.0033	.00002	.00002	.0045	.00022	.00122
%RSD	.54501	2.2363	.29344	.21969	.19543	2.170	1.2980	5.0991

#1	.00315	.00930	1.1327	.01028	.01075	.2091	.01704	.02302
#2	.00317	.00901	1.1374	.01025	.01078	.2027	.01735	.02474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 15:31:38 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42349	.00912	.00526	.00440	.01934	.00479	.01043
Stddev	.00463	.00052	.00002	.00008	.00051	.00002	.00000
%RSD	1.0931	5.6725	.36650	1.9242	2.6388	.49895	.02137

#1	.42676	.00875	.00528	.00434	.01970	.00481	.01042
#2	.42022	.00949	.00525	.00446	.01898	.00477	.01043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2737.2	4134.8	127650.	7804.9
Stddev	4.0	1.2	68.	6.3
%RSD	.14666	.02829	.05311	.08113

#1	2734.4	4133.9	127600.	7800.5
#2	2740.0	4135.6	127700.	7809.4

Sample Name: MB 480-441666/1-A Acquired: 10/31/2018 15:35:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00322	.00218	.00118	-.00000
Stddev	.00036	.01866	.00172	.00013	.00001
%RSD	336.65	580.23	78.774	10.713	524.83

#1	.00036	-.01641	.00097	.00127	-.00001
#2	-.00015	.00998	.00340	.00109	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00886	.00011	-.0065	.00007
Stddev	.00001	.00101	.00000	.0042	.00021
%RSD	16.224	11.408	1.8389	64.10	289.37

#1	-.00007	.00815	.00011	-.0035	-.00008
#2	-.00009	.00958	.00011	-.0094	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00083	.00292	.03543	.00017
Stddev	.00008	.00045	.00321	.00022	.00108
%RSD	228.16	54.484	110.10	.61768	619.06

#1	.00010	-.00051	.00519	.03559	-.00059
#2	-.00002	-.00114	.00065	.03528	.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441666/1-A Acquired: 10/31/2018 15:35:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00146	.00021	-.00009	.14568	.00019
Stddev	.00259	.00002	.00014	.00450	.00016
%RSD	176.86	11.486	151.26	3.0877	85.163

#1	-.00330	.00020	-.00019	.14250	.00008
#2	.00037	.00023	.00001	.14886	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.0146	-.00259	.00030	-.05666
Stddev	.00028	.0022	.00081	.00053	.00708
%RSD	55.667	15.37	31.195	172.68	12.494

#1	-.00071	.0130	-.00202	.00068	-.06166
#2	-.00031	.0162	-.00316	-.00007	-.05165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	-.00004	-.00040	.00046	-.00005
Stddev	.00009	.00002	.00011	.00115	.00020
%RSD	17.176	49.926	26.678	248.26	412.24

#1	-.00048	-.00002	-.00047	.00128	-.00019
#2	-.00062	-.00005	-.00032	-.00035	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441666/1-A Acquired: 10/31/2018 15:35:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00258**
 Stddev .00059
 %RSD 22.827

#1 **.00216**
 #2 **.00300**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.1	4137.9	128820.	7965.2
Stddev	3.2	.8	383.	.8
%RSD	.11799	.01836	.29701	.01015

#1	2736.4	4138.4	129090.	7964.6
#2	2731.9	4137.3	128550.	7965.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.581%	100.31%	98.604%	100.61%
Range				

Sample Name: LCS 480-441666/2-A Acquired: 10/31/2018 15:39:22 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04941	9.8238	.19509	.18952	.20049
Stddev	.00004	.0066	.00202	.00059	.00016
%RSD	.08211	.06707	1.0335	.31210	.07994

#1	.04944	9.8284	.19366	.18994	.20060
#2	.04938	9.8191	.19651	.18910	.20037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20554	9.7467	.19423	-.0095	.18949
Stddev	.00047	.0176	.00025	.0054	.00025
%RSD	.22734	.18013	.12735	57.27	.13322

#1	.20587	9.7591	.19440	-.0057	.18967
#2	.20521	9.7343	.19405	-.0134	.18932

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20321	.19479	10.054	9.4972	.18688
Stddev	.00009	.00049	.007	.0230	.00123
%RSD	.04559	.25112	.06520	.24191	.65882

#1	.20315	.19514	10.050	9.5135	.18775
#2	.20328	.19445	10.059	9.4810	.18601

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441666/2-A Acquired: 10/31/2018 15:39:22 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8449	.20116	.18691	9.7473	.20408
Stddev	.0105	.00012	.00088	.0078	.00009
%RSD	.10669	.05859	.47186	.07965	.04471

#1	9.8374	.20108	.18753	9.7418	.20401
#2	9.8523	.20124	.18628	9.7527	.20414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19111	9.530	.18902	.19628	9.4086
Stddev	.00105	.016	.00097	.00304	.0164
%RSD	.55057	.1687	.51467	1.5489	.17414

#1	.19037	9.541	.18971	.19843	9.3970
#2	.19186	9.518	.18834	.19413	9.4202

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19295	.20498	.19594	.19264	.20289
Stddev	.00033	.00046	.00058	.00119	.00010
%RSD	.16988	.22364	.29680	.61580	.05049

#1	.19271	.20530	.19635	.19348	.20296
#2	.19318	.20465	.19552	.19180	.20282

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441666/2-A Acquired: 10/31/2018 15:39:22 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20178**
 Stddev .00059
 %RSD .29057

#1 **.20137**
 #2 **.20220**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2641.7	4049.3	125320.	7807.8
Stddev	3.4	1.1	79.	9.8
%RSD	.12698	.02662	.06315	.12581

#1	2644.0	4050.1	125370.	7814.8
#2	2639.3	4048.5	125260.	7800.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.280%	98.162%	95.924%	98.617%
Range				

Sample Name: 480-144082-I-1-A Acquired: 10/31/2018 15:43:02 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.28063	-.00183	.03306	.60404
Stddev	.00013	.02764	.00025	.00019	.00266
%RSD	53.117	9.8484	13.475	.57590	.44028

#1	-.00034	.30017	-.00200	.03320	.60216
#2	-.00015	.26108	-.00166	.03293	.60592

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	35.477	.00030	.0114	-.00037
Stddev	.00001	.039	.00001	.0016	.00009
%RSD	4.8824	.11019	4.7686	13.72	23.444

#1	-.00011	35.505	.00031	.0125	-.00043
#2	-.00012	35.449	.00029	.0103	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00065	.00103	.17572	2.5963	.01184
Stddev	.00005	.00012	.00086	.0124	.00076
%RSD	7.4153	11.230	.49011	.47951	6.3971

#1	.00061	.00111	.17632	2.6051	.01237
#2	.00068	.00095	.17511	2.5874	.01130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-A Acquired: 10/31/2018 15:43:02 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.828	.00223	.00016	15.321	.00181
Stddev	.023	.00003	.00012	.091	.00003
%RSD	.20948	1.5664	79.309	.59534	1.5147

#1	10.812	.00221	.00007	15.386	.00179
#2	10.844	.00226	.00025	15.257	.00183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	4.865	-.00223	-.00233	15.998
Stddev	.00053	.001	.00007	.00114	.038
%RSD	811.61	.0214	3.1906	49.114	.23924

#1	.00031	4.864	-.00228	-.00152	16.025
#2	-.00044	4.866	-.00218	-.00314	15.971

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.25577	.00402	.00177	.00147
Stddev	.00076	.00142	.00025	.00003	.00015
%RSD	343.05	.55371	6.2984	1.9696	9.9459

#1	-.00076	.25677	.00420	.00179	.00157
#2	.00032	.25477	.00385	.00174	.00137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-A Acquired: 10/31/2018 15:43:02 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00356**
 Stddev .00058
 %RSD 16.340

#1 **.00397**
 #2 **.00315**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2634.1	4009.6	124480.	7806.0
Stddev	1.7	6.2	118.	16.1
%RSD	.06304	.15557	.09478	.20667

#1	2632.9	4005.2	124570.	7794.6
#2	2635.3	4014.0	124400.	7817.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.010%	97.199%	95.285%	98.594%
Range				

Sample Name: 480-144082-I-1-Asd@5 Acquired: 10/31/2018 15:46:55 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.06169	.00125	.00676	.12255
Stddev	.00014	.01892	.00273	.00013	.00009
%RSD	117.46	30.666	218.23	1.9042	.07296

#1	-.00021	.07506	-.00068	.00686	.12261
#2	-.00002	.04831	.00319	.00667	.12249

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	7.1354	-.00004	-.0134	.00009
Stddev	.00007	.0191	.00003	.0224	.00003
%RSD	65.921	.26700	69.376	167.5	29.079

#1	-.00016	7.1220	-.00006	-.0292	.00007
#2	-.00006	7.1489	-.00002	.0025	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00078	.03490	.52021	.00122
Stddev	.00036	.00003	.00063	.02392	.00132
%RSD	257.54	4.2556	1.7960	4.5979	108.26

#1	.00039	-.00081	.03535	.53712	.00216
#2	-.00011	-.00076	.03446	.50329	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-Asd@5 Acquired: 10/31/2018 15:46:55 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.1479	.00040	-.00026	3.1236	.00056
Stddev	.0014	.00001	.00003	.0084	.00004
%RSD	.06421	2.3530	11.727	.26767	6.9202

#1	2.1469	.00041	-.00028	3.1177	.00053
#2	2.1489	.00040	-.00023	3.1295	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00124	.9448	-.00115	.00084	3.1338
Stddev	.00092	.0036	.00130	.00280	.0086
%RSD	74.054	.3761	112.70	332.29	.27432

#1	.00188	.9423	-.00207	-.00114	3.1277
#2	.00059	.9473	-.00023	.00283	3.1399

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.05182	.00053	.00123	.00009
Stddev	.00013	.00020	.00011	.00087	.00024
%RSD	28.153	.39049	21.175	70.589	269.55

#1	-.00036	.05196	.00061	.00185	.00025
#2	-.00054	.05168	.00045	.00062	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-Asd@5 Acquired: 10/31/2018 15:46:55 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00057**
 Stddev .00004
 %RSD 6.2979

#1 **.00059**
 #2 **.00054**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2730.4	4114.5	126280.	7711.7
Stddev	.5	11.0	5.	1.5
%RSD	.01948	.26685	.00407	.01901

#1	2730.8	4122.3	126280.	7710.7
#2	2730.0	4106.8	126270.	7712.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.446%	99.743%	96.659%	97.404%
Range				

Sample Name: 480-144082-I-1-Apds Acquired: 10/31/2018 15:50:45 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05028	10.302	.20554	.22811	.77350
Stddev	.00026	.038	.00231	.00015	.00179
%RSD	.50921	.36782	1.1234	.06680	.23190

#1	.05047	10.329	.20717	.22800	.77477
#2	.05010	10.276	.20391	.22822	.77223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21696	44.186	.20701	.0081	.20073
Stddev	.00006	.141	.00046	.0150	.00109
%RSD	.02994	.31922	.22114	184.8	.54278

#1	.21701	44.086	.20734	.0187	.20150
#2	.21692	44.286	.20669	-.0025	.19996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21318	.20815	10.692	12.457	.20764
Stddev	.00023	.00032	.019	.003	.00105
%RSD	.10971	.15262	.17686	.02623	.50553

#1	.21301	.20793	10.679	12.454	.20838
#2	.21334	.20838	10.705	12.459	.20690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-Apds Acquired: 10/31/2018 15:50:45 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.821	.21276	.19814	24.872	.21720
Stddev	.028	.00061	.00060	.072	.00043
%RSD	.13646	.28655	.30314	.28786	.19842

#1	20.841	.21319	.19856	24.922	.21751
#2	20.801	.21232	.19771	24.821	.21690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20348	14.37	.19840	.20661	24.774
Stddev	.00008	.05	.00080	.00020	.064
%RSD	.03778	.3332	.40330	.09585	.26032

#1	.20343	14.41	.19897	.20675	24.728
#2	.20354	14.34	.19784	.20647	24.819

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20067	.45310	.21156	.20571	.21674
Stddev	.00125	.00114	.00029	.00002	.00002
%RSD	.62199	.25268	.13567	.01038	.00733

#1	.20155	.45391	.21136	.20573	.21675
#2	.19979	.45229	.21176	.20570	.21672

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-Apds Acquired: 10/31/2018 15:50:45 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21315**
 Stddev .00070
 %RSD .32757

#1 **.21266**
 #2 **.21365**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2581.2	4013.3	124100.	7823.9
Stddev	4.1	9.6	417.	3.0
%RSD	.15835	.23842	.33569	.03873

#1	2578.3	4006.6	123800.	7826.0
#2	2584.1	4020.1	124390.	7821.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.123%	97.290%	94.990%	98.820%
Range				

Sample Name: 480-144082-I-1-B MS Acquired: 10/31/2018 15:54:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05001	10.506	.19656	.22495	.78739
Stddev	.00036	.038	.00254	.00063	.00120
%RSD	.71005	.35972	1.2899	.27789	.15221

#1	.05026	10.480	.19477	.22451	.78654
#2	.04976	10.533	.19835	.22540	.78824

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20892	44.212	.19757	.0021	.19123
Stddev	.00011	.090	.00039	.0120	.00040
%RSD	.05064	.20329	.19982	560.3	.20801

#1	.20899	44.276	.19729	-.0064	.19095
#2	.20884	44.149	.19785	.0107	.19151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20607	.19871	10.403	12.352	.20572
Stddev	.00039	.00023	.000	.072	.00176
%RSD	.19029	.11603	.00070	.58058	.85499

#1	.20579	.19854	10.403	12.402	.20448
#2	.20635	.19887	10.403	12.301	.20696

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-B MS Acquired: 10/31/2018 15:54:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.515	.20445	.19045	25.197	.20679
Stddev	.016	.00008	.00050	.015	.00025
%RSD	.07682	.04114	.26179	.05978	.12115

#1	20.526	.20451	.19010	25.186	.20697
#2	20.504	.20439	.19080	25.208	.20661

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19047	14.44	.19354	.19836	25.482
Stddev	.00096	.02	.00022	.00145	.078
%RSD	.50586	.1504	.11548	.73147	.30670

#1	.19116	14.43	.19369	.19939	25.537
#2	.18979	14.46	.19338	.19734	25.426

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19435	.45966	.20589	.19691	.20846
Stddev	.00002	.00021	.00087	.00050	.00011
%RSD	.00800	.04516	.42111	.25559	.05295

#1	.19436	.45981	.20650	.19656	.20838
#2	.19434	.45952	.20527	.19727	.20854

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-B MS Acquired: 10/31/2018 15:54:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20676**
 Stddev .00173
 %RSD .83604

#1 **.20553**
 #2 **.20798**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2576.0	3993.2	123340.	7727.6
Stddev	.1	2.3	190.	7.7
%RSD	.00197	.05712	.15409	.09961

#1	2576.1	3994.8	123210.	7733.0
#2	2576.0	3991.6	123480.	7722.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.937%	96.802%	94.411%	97.604%
Range				

Sample Name: 480-144082-I-1-C MSD Acquired: 10/31/2018 15:58:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04938	10.463	.19323	.22482	.80298
Stddev	.00023	.007	.00102	.00004	.00060
%RSD	.47190	.07071	.52669	.01817	.07412

#1	.04954	10.469	.19251	.22485	.80340
#2	.04921	10.458	.19395	.22479	.80256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20602	45.029	.19554	.0173	.18909
Stddev	.00008	.175	.00040	.0003	.00034
%RSD	.03704	.38887	.20642	1.826	.17755

#1	.20607	44.905	.19582	.0171	.18933
#2	.20596	45.152	.19525	.0176	.18885

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20182	.19743	10.313	12.424	.20452
Stddev	.00024	.00030	.028	.028	.00040
%RSD	.11789	.15031	.27570	.22526	.19705

#1	.20199	.19722	10.292	12.404	.20423
#2	.20165	.19764	10.333	12.443	.20480

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-C MSD Acquired: 10/31/2018 15:58:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.699	.20123	.18800	25.581	.20393
Stddev	.013	.00004	.00049	.023	.00060
%RSD	.06472	.02152	.25984	.09078	.29562

#1	20.690	.20126	.18835	25.597	.20435
#2	20.709	.20119	.18766	25.564	.20350

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19110	14.57	.19074	.19617	26.116
Stddev	.00038	.02	.00056	.00051	.052
%RSD	.19883	.1076	.29261	.26237	.20001

#1	.19137	14.58	.19114	.19580	26.079
#2	.19083	14.55	.19035	.19653	26.153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19512	.46481	.20542	.19526	.20378
Stddev	.00047	.00070	.00029	.00067	.00129
%RSD	.23949	.15118	.14074	.34552	.63132

#1	.19545	.46530	.20521	.19478	.20288
#2	.19479	.46431	.20562	.19574	.20469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-1-C MSD Acquired: 10/31/2018 15:58:15 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20352**
 Stddev .00018
 %RSD .08778

#1 **.20339**
 #2 **.20365**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2575.1	3992.1	124240.	7841.1
Stddev	2.3	5.6	422.	36.8
%RSD	.08751	.13915	.33942	.46920

#1	2573.5	3988.2	124530.	7867.2
#2	2576.7	3996.0	123940.	7815.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.904%	96.776%	95.097%	99.039%
Range				

Sample Name: 480-144082-I-2-A Acquired: 10/31/2018 16:02:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.46688	.00101	.03208	.60167
Stddev	.00024	.00086	.00031	.00011	.00329
%RSD	126.71	.18353	30.788	.34045	.54606

#1	-.00002	.46627	.00079	.03216	.60399
#2	-.00036	.46748	.00123	.03200	.59934

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	34.938	.00030	-.0099	-.00019
Stddev	.00000	.112	.00014	.0018	.00005
%RSD	6.3719	.32165	45.501	18.18	26.522

#1	-.00001	34.859	.00021	-.0086	-.00023
#2	-.00001	35.018	.00040	-.0111	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.01125	.32068	2.5789	.01125
Stddev	.00004	.00010	.00309	.0108	.00016
%RSD	5.7369	.87724	.96447	.41835	1.4401

#1	.00074	.01118	.31849	2.5866	.01137
#2	.00068	.01132	.32287	2.5713	.01114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-2-A Acquired: 10/31/2018 16:02:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.698	.00270	.00100	9.7076	.00187
Stddev	.002	.00001	.00032	.0216	.00017
%RSD	.02006	.20432	31.649	.22296	9.3455

#1	10.697	.00270	.00122	9.7229	.00174
#2	10.700	.00269	.00078	9.6923	.00199

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00105	4.781	-.00246	.00009	16.317
Stddev	.00042	.001	.00006	.00146	.021
%RSD	40.249	.0245	2.3451	1623.8	.12911

#1	.00134	4.780	-.00250	.00112	16.332
#2	.00075	4.782	-.00242	-.00094	16.302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.25522	.00804	.00153	.00173
Stddev	.00020	.00016	.00038	.00116	.00041
%RSD	58.448	.06263	4.7194	75.551	23.426

#1	-.00020	.25511	.00831	.00071	.00202
#2	-.00047	.25533	.00777	.00235	.00145

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144082-I-2-A Acquired: 10/31/2018 16:02:01 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01043**
 Stddev .00093
 %RSD 8.8900

#1 **.00977**
 #2 **.01108**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2662.2	4055.7	125650.	7872.5
Stddev	3.5	4.0	146.	15.3
%RSD	.13001	.09975	.11580	.19417

#1	2659.7	4052.8	125550.	7861.7
#2	2664.6	4058.5	125750.	7883.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.013%	98.316%	96.178%	99.435%
Range				

Sample Name: 480-143568-E-1-A Acquired: 10/31/2018 16:05:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	-.01052	.00241	.10872	.04892
Stddev	.00052	.01051	.00053	.00042	.00011
%RSD	103.10	99.979	21.890	.38872	.23143

#1	-.00087	-.00308	.00278	.10902	.04900
#2	-.00014	-.01795	.00204	.10842	.04884

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	174.13	.00027	.0009	-.00003
Stddev	.00003	.68	.00005	.0156	.00015
%RSD	37.998	.39164	18.793	1715.	580.27

#1	-.00010	174.61	.00023	.0120	-.00013
#2	-.00006	173.64	.00031	-.0101	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00350	.53597	2.1343	.01637
Stddev	.00022	.00045	.00141	.0421	.00036
%RSD	49.458	12.900	.26283	1.9725	2.1740

#1	.00029	.00382	.53498	2.1045	.01612
#2	.00061	.00318	.53697	2.1640	.01662

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-1-A Acquired: 10/31/2018 16:05:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	35.240	.45598	.00017	15.094	.00052
Stddev	.023	.00040	.00002	.043	.00008
%RSD	.06519	.08866	10.510	.28481	15.512

#1	35.257	.45627	.00016	15.125	.00047
#2	35.224	.45570	.00019	15.064	.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	F 99.45	-.00318	-.00422	7.8833
Stddev	.00013	.13	.00067	.00072	.0656
%RSD	57.322	.1258	21.195	17.023	.83180

#1	-.00013	99.54	-.00270	-.00473	7.9297
#2	-.00032	99.37	-.00366	-.00371	7.8369

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	2.1524	-.00050	.00181	-.00027
Stddev	.00034	.0089	.00011	.00021	.00007
%RSD	112.11	.41217	21.302	11.504	27.028

#1	-.00006	2.1586	-.00042	.00167	-.00032
#2	-.00055	2.1461	-.00057	.00196	-.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-1-A Acquired: 10/31/2018 16:05:54 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00741**
 Stddev .00046
 %RSD 6.2165

#1 **.00708**
 #2 **.00773**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2502.1	3899.5	121490.	7657.7
Stddev	3.3	7.7	40.	27.1
%RSD	.13045	.19785	.03321	.35431

#1	2499.7	3894.0	121460.	7638.5
#2	2504.4	3904.9	121520.	7676.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.297%	94.530%	92.995%	96.721%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 16:09:43 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50833	25.080	.47101	.45568	.51237	.50214	24.669	.47514
Stddev	.00056	.095	.00208	.00029	.00177	.00076	.006	.00064
%RSD	.11101	.37867	.44205	.06294	.34641	.15102	.02577	.13550
#1	.50873	25.147	.46954	.45588	.51111	.50267	24.673	.47559
#2	.50793	25.013	.47248	.45547	.51362	.50160	24.664	.47468

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0043	.48765	.51804	.50743	25.426	25.003	.49157	24.534
Stddev	.0017	.00049	.00005	.00023	.005	.034	.00032	.021
%RSD	40.30	.10050	.01058	.04547	.02089	.13466	.06533	.08713
#1	-.0031	.48800	.51808	.50760	25.430	25.027	.49179	24.549
#2	-.0056	.48730	.51800	.50727	25.422	24.980	.49134	24.519

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52448	.47568	25.836	.50310	.48004	23.76	.47585	.48548
Stddev	.00010	.00080	.082	.00090	.00024	.06	.00052	.00093
%RSD	.01827	.16780	.31587	.17924	.04990	.2641	.10998	.19177
#1	.52455	.47625	25.893	.50374	.48021	23.80	.47622	.48614
#2	.52441	.47512	25.778	.50246	.47987	23.72	.47548	.48482

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 10/31/2018 16:09:43 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.704	.49584	.53747	.50242	.47779	.52428	.48928
Stddev	.035	.00103	.00095	.00101	.00211	.00018	.00155
%RSD	.14005	.20808	.17600	.20197	.44184	.03459	.31769

#1	24.680	.49657	.53814	.50170	.47928	.52415	.48818
#2	24.729	.49511	.53680	.50314	.47629	.52441	.49038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2569.1	4019.1	122640.	7655.5
Stddev	.5	2.3	91.	6.3
%RSD	.02034	.05712	.07404	.08292

#1	2568.7	4017.4	122580.	7651.1
#2	2569.4	4020.7	122710.	7660.0

Sample Name: CCB-4957862 Acquired: 10/31/2018 16:13:26 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.01631	.00077	.00022	-.00000	-.00009	.00949	.00002
Stddev	.00018	.00694	.00052	.00001	.00001	.00002	.00201	.00002
%RSD	236.46	42.566	67.473	3.5503	416.92	18.954	21.187	107.92

#1	.00005	-.02122	.00114	.00022	-.00001	-.00011	.00807	.00000
#2	-.00021	-.01140	.00040	.00023	.00000	-.00008	.01091	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022	-.00007	.00024	-.00061	.00202	-.01539	-.00056	-.00248
Stddev	.0208	.00009	.00004	.00007	.00042	.01735	.00073	.00045
%RSD	954.1	136.67	16.055	12.113	20.836	112.70	130.37	18.028

#1	.0169	-.00013	.00021	-.00066	.00172	-.00313	-.00004	-.00279
#2	-.0125	-.00000	.00027	-.00056	.00231	-.02766	-.00107	-.00216

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00030	.07994	.00003	.00050	.0167	-.00152	-.00127
Stddev	.00004	.00016	.00593	.00011	.00003	.0008	.00051	.00220
%RSD	11.849	52.580	7.4232	365.40	6.9195	4.552	33.286	172.92

#1	.00032	.00019	.07574	-.00005	.00053	.0162	-.00188	.00028
#2	.00027	.00042	.08413	.00011	.00048	.0173	-.00116	-.00283

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 16:13:26 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04520	-0.00024	-0.00007	-0.00010	.00052	-0.00023	.00151
Stddev	.01270	.00007	.00002	.00003	.00017	.00018	.00037
%RSD	28.087	31.334	26.702	33.601	33.078	78.019	24.598

#1	-0.05418	-0.00029	-0.00009	-0.00007	.00064	-0.00036	.00178
#2	-0.03622	-0.00018	-0.00006	-0.00012	.00040	-0.00010	.00125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2728.6	4137.4	127300.	7794.5
Stddev	1.3	7.1	121.	10.8
%RSD	.04831	.17167	.09538	.13805

#1	2727.7	4132.4	127210.	7802.1
#2	2729.5	4142.4	127380.	7786.9

Sample Name: CCVL-4970377 Acquired: 10/31/2018 16:17:18 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00577	.17621	.01440	.01882	.00210	.00199	.50514	.00205
Stddev	.00049	.00408	.00045	.00010	.00001	.00000	.00367	.00005
%RSD	8.5330	2.3136	3.1306	.55328	.50632	.16098	.72680	2.5942

#1	.00612	.17332	.01471	.01875	.00210	.00199	.50254	.00202
#2	.00542	.17909	.01408	.01889	.00209	.00199	.50773	.00209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080	.00388	.00401	.00864	.05066	.45387	.02762	.20107
Stddev	.0074	.00007	.00016	.00019	.00497	.03806	.00058	.00318
%RSD	92.86	1.7302	4.1075	2.2281	9.8055	8.3864	2.1093	1.5839

#1	.0133	.00392	.00412	.00878	.04715	.42696	.02803	.20332
#2	.0028	.00383	.00389	.00851	.05417	.48079	.02720	.19882

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00315	.00916	1.0367	.01017	.01039	.1918	.01684	.02168
Stddev	.00003	.00008	.0033	.00032	.00055	.0013	.00056	.00093
%RSD	1.1079	.85297	.31431	3.1919	5.3045	.6902	3.3167	4.2972

#1	.00318	.00910	1.0344	.01040	.01078	.1908	.01724	.02234
#2	.00313	.00921	1.0390	.00994	.01000	.1927	.01645	.02102

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 16:17:18 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44295	.00892	.00519	.00480	.01932	.00487	.01016
Stddev	.01282	.00014	.00004	.00023	.00084	.00003	.00103
%RSD	2.8935	1.5630	.80000	4.7115	4.3493	.61954	10.157

#1	.43389	.00882	.00516	.00496	.01872	.00489	.01090
#2	.45202	.00902	.00521	.00464	.01991	.00485	.00943

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2747.7	4184.6	128010.	7831.2
Stddev	4.5	8.9	107.	4.3
%RSD	.16450	.21313	.08391	.05498

#1	2744.5	4178.3	128080.	7828.1
#2	2750.9	4190.9	127930.	7834.2

Sample Name: 480-143568-E-2-A Acquired: 10/31/2018 16:21:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	-.00217	.00354	.04654	.03705
Stddev	.00011	.00446	.00085	.00001	.00010
%RSD	52.645	205.29	24.071	.01450	.26674

#1	-.00029	.00098	.00414	.04654	.03698
#2	-.00013	-.00532	.00294	.04653	.03712

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	153.74	.00017	-.0110	.00003
Stddev	.00002	.35	.00019	.0196	.00008
%RSD	29.365	.22619	114.48	178.5	248.35

#1	-.00010	153.98	.00003	.0029	.00009
#2	-.00007	153.49	.00031	-.0249	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	-.00002	1.1786	2.0458	.01309
Stddev	.00006	.00069	.0016	.0092	.00094
%RSD	12.416	3568.0	.13772	.45075	7.1595

#1	.00045	.00047	1.1774	2.0393	.01242
#2	.00053	-.00050	1.1797	2.0523	.01375

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-2-A Acquired: 10/31/2018 16:21:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	33.289	.16116	.00074	9.5939	-.00028
Stddev	.006	.00034	.00008	.0168	.00042
%RSD	.01765	.20819	10.086	.17556	150.94

#1	33.293	.16092	.00069	9.6058	.00002
#2	33.285	.16140	.00080	9.5820	-.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00087	61.87	-.00098	-.00494	7.6781
Stddev	.00152	.08	.00162	.00059	.0110
%RSD	174.63	.1241	165.01	11.843	.14280

#1	-.00020	61.92	.00016	-.00453	7.6859
#2	.00194	61.81	-.00213	-.00536	7.6704

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	1.5014	-.00055	.00033	-.00023
Stddev	.00005	.0002	.00013	.00002	.00022
%RSD	64.984	.01458	23.164	7.3761	98.645

#1	-.00005	1.5015	-.00046	.00035	-.00007
#2	-.00012	1.5012	-.00064	.00031	-.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-2-A Acquired: 10/31/2018 16:21:09 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00437**
 Stddev .00055
 %RSD 12.571

#1 **.00398**
 #2 **.00476**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2519.1	3931.4	121950.	7710.3
Stddev	1.6	4.0	30.	7.5
%RSD	.06324	.10135	.02490	.09750

#1	2520.2	3934.2	121930.	7705.0
#2	2517.9	3928.5	121970.	7715.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.905%	95.303%	93.348%	97.386%
Range				

Sample Name: 480-143568-E-3-A Acquired: 10/31/2018 16:24:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.00961	-.00039	.01484	.01165
Stddev	.00050	.00423	.00009	.00003	.00001
%RSD	179.97	44.036	23.545	.19409	.11878

#1	-.00063	.00662	-.00045	.01486	.01166
#2	.00008	.01260	-.00032	.01482	.01164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	70.719	.00018	-.0031	.00005
Stddev	.00001	.053	.00006	.0237	.00003
%RSD	20.935	.07507	33.470	762.2	66.397

#1	-.00005	70.681	.00022	-.0199	.00007
#2	-.00007	70.756	.00014	.0136	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.02717	.05577	1.2398	.00316
Stddev	.00043	.00012	.00125	.0002	.00057
%RSD	230.74	.45370	2.2500	.01537	17.876

#1	.00050	.02708	.05488	1.2397	.00356
#2	-.00012	.02725	.05666	1.2400	.00276

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-3-A Acquired: 10/31/2018 16:24:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.9632	.00276	-.00016	2.6517	.00035
Stddev	.0174	.00001	.00012	.0065	.00004
%RSD	.19461	.21292	74.939	.24322	12.356

#1	8.9508	.00275	-.00008	2.6562	.00038
#2	8.9755	.00276	-.00025	2.6471	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00042	10.62	-.00246	-.00004	3.3191
Stddev	.00025	.02	.00041	.00081	.0155
%RSD	59.480	.1584	16.638	1995.4	.46661

#1	.00060	10.60	-.00275	.00053	3.3300
#2	.00024	10.63	-.00217	-.00061	3.3081

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.18062	-.00017	.00171	-.00030
Stddev	.00005	.00032	.00000	.00058	.00018
%RSD	14.980	.17522	.87477	33.745	58.579

#1	-.00037	.18084	-.00017	.00131	-.00043
#2	-.00030	.18039	-.00017	.00212	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-3-A Acquired: 10/31/2018 16:24:57 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01337**
 Stddev .00002
 %RSD .13110

#1 **.01339**
 #2 **.01336**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2640.0	4040.6	124680.	7794.6
Stddev	.9	.2	192.	3.3
%RSD	.03577	.00617	.15361	.04197

#1	2639.3	4040.4	124810.	7792.3
#2	2640.7	4040.8	124540.	7796.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.221%	97.952%	95.436%	98.451%
Range				

Sample Name: 480-143568-E-4-A Acquired: 10/31/2018 16:28:45 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.04955	-.00040	.03510	.02495
Stddev	.00008	.00172	.00211	.00027	.00002
%RSD	15.177	3.4614	524.98	.76586	.08477

#1	-.00048	.05077	.00109	.03491	.02496
#2	-.00059	.04834	-.00190	.03529	.02493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	235.01	.00028	.0118	-.00023
Stddev	.00008	.47	.00007	.0116	.00005
%RSD	4171.1	.19809	24.316	98.62	20.643

#1	-.00005	234.68	.00033	.0200	-.00026
#2	.00006	235.34	.00023	.0036	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00038	-.00109	.05056	1.9450	.05557
Stddev	.00016	.00005	.00507	.0328	.00117
%RSD	41.072	4.6252	10.031	1.6836	2.1069

#1	.00049	-.00113	.04697	1.9219	.05640
#2	.00027	-.00106	.05414	1.9682	.05474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-4-A Acquired: 10/31/2018 16:28:45 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	42.033	.01919	-.00000	3.4467	-.00026
Stddev	.049	.00010	.00010	.0281	.00024
%RSD	.11653	.54317	2390.2	.81522	94.995

#1	42.068	.01912	-.00008	3.4268	-.00008
#2	41.999	.01927	.00007	3.4665	-.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	F 169.7	-.00248	-.00086	7.6619
Stddev	.00009	.0	.00083	.00147	.0214
%RSD	21.102	.0212	33.364	170.64	.27963

#1	.00046	169.7	-.00306	-.00190	7.6467
#2	.00034	169.7	-.00189	.00018	7.6770

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.50235	-.00020	.00162	-.00050
Stddev	.00116	.00361	.00034	.00101	.00013
%RSD	389.61	.71880	172.48	62.436	25.749

#1	.00052	.49980	-.00044	.00234	-.00059
#2	-.00112	.50490	.00004	.00091	-.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-4-A Acquired: 10/31/2018 16:28:45 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00226**
 Stddev .00057
 %RSD 25.022

#1 **.00266**
 #2 **.00186**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2480.5	3879.5	120010.	7656.2
Stddev	1.5	5.5	418.	38.5
%RSD	.05971	.14166	.34854	.50328

#1	2479.5	3883.3	120310.	7683.5
#2	2481.6	3875.6	119710.	7629.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.529%	94.045%	91.861%	96.703%
Range				

Sample Name: 480-143568-E-5-A Acquired: 10/31/2018 16:32:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00007	-.00326	.02421	.02648
Stddev	.00016	.01220	.00038	.00001	.00007
%RSD	68.258	16485.	11.579	.02092	.25666

#1	-.00034	.00870	-.00352	.02420	.02653
#2	-.00012	-.00856	-.00299	.02421	.02643

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	209.90	.00028	-.0031	-.00013
Stddev	.00001	.14	.00009	.0090	.00008
%RSD	12.927	.06604	33.165	288.1	58.902

#1	-.00009	210.00	.00021	.0032	-.00019
#2	-.00011	209.80	.00034	-.0095	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.01744	.00490	1.8079	.01095
Stddev	.00003	.00017	.00078	.0166	.00108
%RSD	4.4218	.97396	15.839	.91723	9.8588

#1	.00059	.01756	.00545	1.7962	.01019
#2	.00063	.01732	.00436	1.8196	.01172

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-5-A Acquired: 10/31/2018 16:32:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	40.468	.00079	-.00003	5.3488	.00133
Stddev	.031	.00000	.00025	.0022	.00003
%RSD	.07761	.26562	939.36	.04011	2.4850

#1	40.491	.00079	.00015	5.3473	.00136
#2	40.446	.00079	-.00021	5.3503	.00131

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	F 155.7	-.00145	-.00383	4.3324
Stddev	.00047	.0	.00023	.00028	.0096
%RSD	149.68	.0073	16.077	7.3175	.22097

#1	.00002	155.7	-.00161	-.00364	4.3392
#2	-.00065	155.7	-.00129	-.00403	4.3256

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00089	.61924	-.00067	.00078	-.00080
Stddev	.00021	.00187	.00033	.00080	.00006
%RSD	23.167	.30248	49.967	102.36	7.4835

#1	-.00074	.62057	-.00043	.00021	-.00076
#2	-.00103	.61792	-.00090	.00134	-.00084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143568-E-5-A Acquired: 10/31/2018 16:32:33 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.07442**
 Stddev .00060
 %RSD .81083

#1 **.07484**
 #2 **.07399**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2493.6	3881.3	120870.	7695.0
Stddev	2.7	1.2	311.	3.9
%RSD	.10733	.03152	.25691	.05061

#1	2495.5	3880.5	121090.	7692.2
#2	2491.8	3882.2	120650.	7697.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.998%	94.090%	92.517%	97.192%
Range				

Sample Name: 480-143865-C-1-A Acquired: 10/31/2018 16:36:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.00319	.00085	.00342	.00990
Stddev	.00007	.01038	.00093	.00018	.00000
%RSD	22.379	325.75	109.42	5.3992	.05032

#1	-.00025	-.00415	.00150	.00356	.00989
#2	-.00034	.01053	.00019	.00329	.00990

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	9.5367	.00010	-.0342	.00565
Stddev	.00002	.0323	.00010	.0034	.00011
%RSD	26.216	.33920	99.676	10.03	1.9080

#1	-.00005	9.5138	.00003	-.0366	.00557
#2	-.00008	9.5595	.00017	-.0317	.00572

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	-.00095	.99350	.64762	.00124
Stddev	.00001	.00012	.00503	.02149	.00063
%RSD	1.8166	12.916	.50603	3.3180	50.417

#1	.00060	-.00104	.98995	.66281	.00080
#2	.00061	-.00087	.99706	.63242	.00169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-1-A Acquired: 10/31/2018 16:36:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.5896	.40419	-.00027	7.4573	.00466
Stddev	.0120	.00021	.00010	.0236	.00043
%RSD	.18185	.05204	35.436	.31689	9.2745

#1	6.5812	.40434	-.00021	7.4740	.00497
#2	6.5981	.40405	-.00034	7.4406	.00436

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00097	1.648	-.00271	-.00289	13.372
Stddev	.00028	.002	.00183	.00053	.041
%RSD	28.760	.1221	67.573	18.216	.30587

#1	.00077	1.650	-.00401	-.00251	13.343
#2	.00116	1.647	-.00142	-.00326	13.401

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.03014	.00008	.00159	-.00006
Stddev	.00010	.00008	.00035	.00028	.00010
%RSD	19.423	.24962	456.27	17.565	165.80

#1	-.00046	.03020	.00032	.00140	.00001
#2	-.00061	.03009	-.00017	.00179	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-1-A Acquired: 10/31/2018 16:36:21 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00468**
 Stddev .00045
 %RSD 9.7291

#1 **.00435**
 #2 **.00500**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2713.5	4107.4	126710.	7842.8
Stddev	1.1	2.1	66.	5.4
%RSD	.04160	.05056	.05176	.06849

#1	2712.7	4105.9	126760.	7846.6
#2	2714.3	4108.8	126670.	7839.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.843%	99.570%	96.993%	99.059%
Range				

Sample Name: 480-143865-C-2-A Acquired: 10/31/2018 16:40:11 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	.01851	.00192	.02132	.14104
Stddev	.00017	.00126	.00001	.00038	.00008
%RSD	19.194	6.8046	.67572	1.7729	.05857

#1	-.00075	.01762	.00191	.02105	.14110
#2	-.00098	.01940	.00193	.02158	.14099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	21.350	.00012	-.0252	.00057
Stddev	.00004	.028	.00005	.0133	.00019
%RSD	92.207	.12985	42.786	52.75	32.850

#1	-.00001	21.370	.00008	-.0346	.00044
#2	-.00006	21.330	.00015	-.0158	.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00060	21.778	3.9267	-.00031
Stddev	.00000	.00029	.052	.0358	.00046
%RSD	30.225	47.699	.23686	.91280	148.89

#1	-.00001	-.00040	21.814	3.9521	-.00064
#2	-.00001	-.00080	21.741	3.9014	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-2-A Acquired: 10/31/2018 16:40:11 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.9184	11.243	-0.00061	6.4438	.00005
Stddev	.0119	.077	.00003	.0301	.00018
%RSD	.17235	.68371	5.3809	.46643	368.35

#1	6.9100	11.189	-0.00058	6.4651	-0.00008
#2	6.9268	11.298	-0.00063	6.4226	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00199	1.037	-0.00220	-0.00093	6.2163
Stddev	.00059	.007	.00069	.00119	.0239
%RSD	29.557	.7140	31.297	128.17	.38407

#1	.00157	1.042	-0.00171	-0.00009	6.2332
#2	.00240	1.032	-0.00269	-0.00176	6.1994

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-0.00034	.09649	-0.00042	-0.00276	.00044
Stddev	.00019	.00024	.00003	.00016	.00007
%RSD	56.204	.25289	8.2374	5.9642	15.849

#1	-0.00021	.09666	-0.00040	-0.00264	.00049
#2	-0.00048	.09631	-0.00045	-0.00288	.00039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-2-A Acquired: 10/31/2018 16:40:11 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00378**
 Stddev .00004
 %RSD .97249

#1 **.00376**
 #2 **.00381**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2662.8	4068.3	126500.	7885.2
Stddev	3.2	1.8	399.	31.8
%RSD	.11935	.04431	.31571	.40306

#1	2665.1	4069.6	126780.	7862.7
#2	2660.6	4067.1	126210.	7907.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.036%	98.624%	96.826%	99.594%
Range				

Sample Name: 480-143865-D-3-A Acquired: 10/31/2018 16:44:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	.00934	.00005	.00207	.03854
Stddev	.00012	.00145	.00049	.00023	.00004
%RSD	26.959	15.532	1051.1	11.169	.09562

#1	-.00036	.01037	-.00030	.00190	.03856
#2	-.00053	.00832	.00039	.00223	.03851

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	28.530	.00016	-.0080	.00600
Stddev	.00005	.016	.00002	.0322	.00015
%RSD	50.110	.05603	11.309	403.4	2.5271

#1	-.00006	28.519	.00014	.0148	.00611
#2	-.00012	28.542	.00017	-.0307	.00589

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	-.00107	8.9660	3.2466	.00313
Stddev	.00037	.00027	.0126	.0194	.00141
%RSD	103.63	25.511	.14007	.59853	45.138

#1	.00010	-.00127	8.9571	3.2604	.00213
#2	.00062	-.00088	8.9749	3.2329	.00413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-D-3-A Acquired: 10/31/2018 16:44:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.659	2.3026	-.00036	9.3940	-.00023
Stddev	.024	.0021	.00006	.0376	.00018
%RSD	.15137	.09033	17.603	.40008	76.231

#1	15.676	2.3041	-.00031	9.3674	-.00011
#2	15.642	2.3011	-.00040	9.4206	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	1.308	-.00084	-.00074	17.553
Stddev	.00005	.003	.00072	.00055	.016
%RSD	1302.5	.2198	86.255	74.971	.08994

#1	.00004	1.310	-.00135	-.00113	17.564
#2	-.00003	1.306	-.00033	-.00035	17.542

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.07840	.00050	-.00047	-.00015
Stddev	.00016	.00018	.00027	.00016	.00004
%RSD	19.440	.22719	52.958	34.813	23.834

#1	-.00072	.07828	.00032	-.00036	-.00017
#2	-.00095	.07853	.00069	-.00059	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-D-3-A Acquired: 10/31/2018 16:44:04 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00283**
 Stddev .00060
 %RSD 21.180

#1 **.00240**
 #2 **.00325**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2666.4	4094.2	125410.	7774.2
Stddev	.7	6.0	124.	34.7
%RSD	.02733	.14734	.09925	.44629

#1	2667.0	4098.5	125330.	7798.7
#2	2665.9	4090.0	125500.	7749.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.165%	99.251%	95.998%	98.193%
Range				

Sample Name: 480-143865-C-4-A Acquired: 10/31/2018 16:47:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.07648	-.00106	.01395	.08178
Stddev	.00041	.02760	.00107	.00007	.00002
%RSD	1023.7	36.091	101.56	.52367	.02451

#1	.00025	.05696	-.00182	.01401	.08177
#2	-.00033	.09599	-.00030	.01390	.08180

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	10.949	.00012	-.0341	.00101
Stddev	.00002	.005	.00009	.0154	.00006
%RSD	30.469	.04306	78.122	45.13	5.8551

#1	-.00009	10.953	.00005	-.0450	.00105
#2	-.00006	10.946	.00019	-.0232	.00097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00118	.25802	2.4548	-.00006
Stddev	.00016	.00011	.00444	.0027	.00012
%RSD	48.205	8.9191	1.7189	.11100	189.17

#1	.00045	.00111	.26115	2.4567	.00002
#2	.00022	.00125	.25488	2.4529	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-4-A Acquired: 10/31/2018 16:47:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.9989	.42264	-.00029	3.8682	.00022
Stddev	.0015	.00047	.00011	.0163	.00011
%RSD	.05134	.11224	37.109	.42165	50.952

#1	3.0000	.42230	-.00021	3.8797	.00029
#2	2.9978	.42298	-.00037	3.8567	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	4.657	-.00225	-.00137	6.0166
Stddev	.00065	.010	.00033	.00068	.0639
%RSD	1959.1	.2082	14.422	49.954	1.0614

#1	.00043	4.664	-.00202	-.00185	6.0618
#2	-.00049	4.651	-.00248	-.00088	5.9714

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	.04814	.00265	.00106	.00009
Stddev	.00005	.00019	.00002	.00045	.00012
%RSD	9.3074	.39323	.81536	42.564	128.85

#1	-.00046	.04827	.00264	.00138	.00018
#2	-.00053	.04801	.00267	.00074	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-4-A Acquired: 10/31/2018 16:47:52 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03074**
 Stddev .00081
 %RSD 2.6335

#1 **.03017**
 #2 **.03131**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2728.9	4125.7	127460.	7904.2
Stddev	2.7	4.4	302.	6.7
%RSD	.09764	.10692	.23724	.08452

#1	2727.1	4122.5	127680.	7899.5
#2	2730.8	4128.8	127250.	7909.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.395%	100.01%	97.568%	99.835%
Range				

Sample Name: 480-143865-C-5-A Acquired: 10/31/2018 16:51:40 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.01601	.00104	.00650	.09577
Stddev	.00020	.02191	.00069	.00014	.00004
%RSD	1255.9	136.90	66.049	2.2034	.04404

#1	-.00016	.00051	.00056	.00661	.09580
#2	.00013	.03150	.00153	.00640	.09574

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	17.919	.00024	-.0105	.00154
Stddev	.00009	.018	.00004	.0070	.00000
%RSD	142.18	.09911	18.630	66.68	.16310

#1	-.00013	17.932	.00027	-.0155	.00154
#2	.00000	17.907	.00021	-.0056	.00154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	-.00075	22.361	1.2996	.00111
Stddev	.00033	.00005	.008	.0019	.00040
%RSD	118.05	6.9356	.03455	.14664	36.571

#1	.00005	-.00079	22.366	1.3009	.00139
#2	.00051	-.00071	22.355	1.2982	.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-5-A Acquired: 10/31/2018 16:51:40 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.8404	2.1070	-.00025	5.0748	-.00002
Stddev	.0051	.0002	.00028	.0180	.00015
%RSD	.05736	.01025	110.89	.35445	864.47

#1	8.8368	2.1071	-.00045	5.0621	-.00012
#2	8.8440	2.1068	-.00005	5.0875	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.0701	-.00200	-.00156	12.371
Stddev	.00018	.0000	.00037	.00184	.014
%RSD	185.50	.0677	18.518	117.88	.11606

#1	.00023	.0701	-.00226	-.00287	12.361
#2	-.00003	.0700	-.00173	-.00026	12.381

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	.06156	-.00028	-.00045	.00073
Stddev	.00037	.00028	.00016	.00089	.00006
%RSD	94.797	.44926	56.167	198.33	8.2529

#1	-.00066	.06136	-.00017	-.00108	.00069
#2	-.00013	.06175	-.00039	.00018	.00077

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-5-A Acquired: 10/31/2018 16:51:40 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00265**
 Stddev .00078
 %RSD 29.403

#1 **.00320**
 #2 **.00210**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2682.1	4101.1	127020.	7901.4
Stddev	6.4	13.2	61.	6.6
%RSD	.23890	.32167	.04806	.08292

#1	2677.5	4091.8	127070.	7896.7
#2	2686.6	4110.4	126980.	7906.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.722%	99.417%	97.231%	99.799%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 16:55:28 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50893	25.096	.46962	.45787	.51049	.50106	24.736	.48001
Stddev	.00044	.147	.00012	.00007	.00111	.00081	.007	.00068
%RSD	.08555	.58543	.02512	.01634	.21704	.16221	.02654	.14167

#1	.50862	24.992	.46970	.45782	.50971	.50163	24.732	.47953
#2	.50923	25.200	.46954	.45793	.51127	.50048	24.741	.48049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0189	.48974	.51898	.50520	25.424	24.954	.48943	24.608
Stddev	.0055	.00073	.00023	.00022	.027	.071	.00006	.057
%RSD	28.94	.14961	.04429	.04419	.10766	.28437	.01162	.23083

#1	-.0228	.49026	.51914	.50535	25.444	25.004	.48939	24.568
#2	-.0150	.48922	.51881	.50504	25.405	24.904	.48947	24.648

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52485	.47944	25.712	.50420	.48426	23.87	.47801	.48270
Stddev	.00086	.00000	.013	.00088	.00243	.01	.00198	.00055
%RSD	.16322	.00078	.04965	.17369	.50085	.0246	.41386	.11463

#1	.52424	.47944	25.721	.50482	.48598	23.87	.47941	.48309
#2	.52546	.47944	25.703	.50358	.48255	23.88	.47661	.48231

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/31/2018 16:55:28 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.557	.49958	.53697	.50249	.48085	.52379	.49416
Stddev	.154	.00135	.00156	.00050	.00111	.00177	.00037
%RSD	.62866	.26969	.28987	.09907	.23073	.33859	.07582

#1	24.448	.49863	.53587	.50284	.48164	.52254	.49443
#2	24.666	.50054	.53807	.50214	.48007	.52505	.49390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2569.0	4009.0	122750.	7628.3
Stddev	.6	5.6	307.	16.4
%RSD	.02173	.14088	.25013	.21464

#1	2568.6	4013.0	122970.	7616.7
#2	2569.3	4005.0	122530.	7639.9

Sample Name: CCB-4957862 Acquired: 10/31/2018 16:59:11 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.00510	.00104	-.00045	.00000	-.00009	.00673	-.00002
Stddev	.00049	.00121	.00102	.00023	.00001	.00006	.00156	.00008
%RSD	394.04	23.695	98.456	50.985	235.54	60.640	23.124	330.24

#1	.00022	.00425	.00031	-.00029	.00001	-.00005	.00563	.00003
#2	-.00047	.00596	.00176	-.00061	-.00000	-.00013	.00784	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0234	.00002	.00010	-.00084	.00305	-.02047	-.00020	-.00337
Stddev	.0102	.00000	.00016	.00013	.00110	.00786	.00025	.00314
%RSD	43.56	12.818	171.04	15.426	36.073	38.380	124.82	93.432

#1	-.0162	.00002	-.00002	-.00075	.00383	-.02603	-.00038	-.00559
#2	-.0306	.00002	.00021	-.00093	.00227	-.01492	-.00002	-.00114

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00034	.02723	-.00017	.00013	.0088	-.00208	-.00009
Stddev	.00004	.00001	.00248	.00036	.00087	.0008	.00054	.00098
%RSD	11.427	3.7968	9.1057	219.42	654.79	9.532	26.015	1054.6

#1	.00033	.00033	.02548	.00009	.00075	.0094	-.00246	-.00078
#2	.00028	.00035	.02899	-.00042	-.00048	.0082	-.00169	.00060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 16:59:11 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03880	-.00011	-.00006	-.00014	.00004	-.00017	.00073
Stddev	.00701	.00035	.00006	.00003	.00043	.00030	.00078
%RSD	18.068	306.32	88.909	20.942	1066.9	176.05	106.92

#1	-.03384	.00013	-.00010	-.00016	.00034	.00004	.00128
#2	-.04376	-.00036	-.00002	-.00012	-.00026	-.00038	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2739.3	4158.0	127410.	7725.3
Stddev	4.3	8.1	261.	8.5
%RSD	.15823	.19586	.20514	.11036

#1	2736.3	4152.2	127220.	7731.3
#2	2742.4	4163.8	127590.	7719.3

Sample Name: CCVL-4970377 Acquired: 10/31/2018 17:03:03 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00616	.19285	.01447	.01835	.00208	.00193	.50629	.00204
Stddev	.00047	.00213	.00217	.00038	.00001	.00000	.00240	.00012
%RSD	7.7059	1.1057	14.969	2.0659	.51702	.03094	.47394	5.6323

#1	.00649	.19134	.01294	.01808	.00208	.00193	.50799	.00196
#2	.00582	.19436	.01601	.01861	.00207	.00193	.50459	.00212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0203	.00378	.00448	.00875	.05353	.41367	.02744	.20000
Stddev	.0019	.00014	.00007	.00050	.00242	.00104	.00153	.00127
%RSD	9.189	3.6637	1.5720	5.7463	4.5126	.25220	5.5571	.63379

#1	-.0216	.00388	.00443	.00911	.05524	.41440	.02852	.20090
#2	-.0190	.00369	.00453	.00840	.05182	.41293	.02637	.19910

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00320	.00906	.98846	.01017	.01076	.1898	.01612	.02183
Stddev	.00004	.00003	.00107	.00003	.00142	.0037	.00006	.00239
%RSD	1.2896	.36109	.10840	.31988	13.183	1.974	.37575	10.971

#1	.00323	.00904	.98770	.01014	.01176	.1871	.01616	.02013
#2	.00317	.00909	.98922	.01019	.00975	.1924	.01608	.02352

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 17:03:03 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44102	.00905	.00517	.00476	.02014	.00484	.01012
Stddev	.01349	.00017	.00011	.00033	.00050	.00025	.00038
%RSD	3.0589	1.8311	2.0677	6.8342	2.4870	5.1829	3.7762

#1	.45056	.00916	.00509	.00453	.02049	.00501	.01039
#2	.43148	.00893	.00524	.00499	.01978	.00466	.00985

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2745.8	4190.5	127620.	7762.4
Stddev	4.4	9.3	147.	14.7
%RSD	.15883	.22246	.11519	.18962

#1	2742.7	4183.9	127720.	7772.8
#2	2748.9	4197.1	127510.	7752.0

Sample Name: 480-143865-C-6-A Acquired: 10/31/2018 17:06:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.04707	.00148	.01806	.09058
Stddev	.00036	.01866	.00103	.00040	.00002
%RSD	86.657	39.646	69.730	2.2098	.02075

#1	-.00016	.03387	.00221	.01834	.09060
#2	-.00066	.06026	.00075	.01778	.09057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	10.598	.00012	-.0272	.00102
Stddev	.00000	.021	.00001	.0076	.00014
%RSD	3.1099	.19475	11.227	27.71	13.732

#1	-.00010	10.583	.00011	-.0326	.00112
#2	-.00010	10.612	.00013	-.0219	.00092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.00118	38.757	1.6578	.00005
Stddev	.00028	.00025	.031	.0223	.00004
%RSD	142.10	21.281	.08036	1.3465	75.199

#1	-.00039	-.00100	38.735	1.6736	.00008
#2	.00000	-.00136	38.779	1.6421	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-6-A Acquired: 10/31/2018 17:06:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.0232	1.3885	-.00052	7.6090	-.00002
Stddev	.0049	.0016	.00010	.0062	.00021
%RSD	.07035	.11812	19.732	.08141	1049.1

#1	7.0197	1.3873	-.00059	7.6134	.00013
#2	7.0267	1.3896	-.00045	7.6047	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.9501	-.00177	-.00078	4.3120
Stddev	.00187	.0055	.00059	.00136	.0152
%RSD	1964.1	.5776	33.173	173.29	.35339

#1	.00123	.9462	-.00218	.00018	4.3013
#2	-.00142	.9540	-.00135	-.00175	4.3228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.06045	.00046	.00066	.00027
Stddev	.00030	.00045	.00014	.00017	.00017
%RSD	273.27	.73738	30.279	26.263	62.498

#1	-.00032	.06077	.00036	.00053	.00039
#2	.00010	.06014	.00056	.00078	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143865-C-6-A Acquired: 10/31/2018 17:06:54 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01105**
 Stddev .00013
 %RSD 1.1853

#1 **.01114**
 #2 **.01095**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2690.8	4124.6	126570.	7830.0
Stddev	2.5	2.9	424.	24.9
%RSD	.09114	.06929	.33478	.31796

#1	2689.1	4126.7	126870.	7847.6
#2	2692.6	4122.6	126270.	7812.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.036%	99.988%	96.881%	98.898%
Range				

Sample Name: 480-143868-B-1-A Acquired: 10/31/2018 17:10:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.28456	-.00030	.02490	.07693
Stddev	.00007	.01515	.00018	.00039	.00030
%RSD	28.277	5.3256	59.149	1.5548	.39434

#1	-.00019	.29528	-.00018	.02517	.07714
#2	-.00028	.27385	-.00043	.02463	.07671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	9.4930	.00005	-.0159	.00031
Stddev	.00006	.0003	.00007	.0566	.00006
%RSD	177.00	.00282	156.38	354.9	18.878

#1	-.00008	9.4932	-.00000	.0241	.00027
#2	.00001	9.4928	.00010	-.0560	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.00083	1.0267	5.0738	.00074
Stddev	.00010	.00006	.0014	.0311	.00034
%RSD	15.551	7.1516	.13282	.61299	46.605

#1	.00068	.00079	1.0277	5.0518	.00050
#2	.00055	.00087	1.0257	5.0958	.00098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-B-1-A Acquired: 10/31/2018 17:10:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.2186	.74805	-.00007	7.1464	.00048
Stddev	.0093	.00029	.00013	.0170	.00022
%RSD	.28911	.03919	191.31	.23812	46.784

#1	3.2120	.74826	.00002	7.1344	.00032
#2	3.2251	.74784	-.00016	7.1584	.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00065	1.366	-.00178	-.00226	2.6403
Stddev	.00017	.003	.00002	.00231	.0100
%RSD	26.235	.2444	1.0304	101.95	.37882

#1	.00053	1.368	-.00177	-.00390	2.6332
#2	.00077	1.364	-.00180	-.00063	2.6473

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	.02991	.00809	.00134	.00155
Stddev	.00050	.00010	.00084	.00085	.00013
%RSD	75.039	.34086	10.406	63.269	8.2315

#1	-.00032	.02984	.00750	.00195	.00146
#2	-.00103	.02998	.00869	.00074	.00164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-B-1-A Acquired: 10/31/2018 17:10:42 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00576**
 Stddev .00005
 %RSD .82207

#1 **.00579**
 #2 **.00573**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2721.1	4130.6	127570.	7942.1
Stddev	3.3	9.6	215.	12.8
%RSD	.12303	.23286	.16818	.16101

#1	2723.5	4137.4	127420.	7933.0
#2	2718.8	4123.8	127720.	7951.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.116%	100.13%	97.650%	100.31%
Range				

Sample Name: 480-143868-C-2-A Acquired: 10/31/2018 17:14:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.16066	.00092	.01009	.02236
Stddev	.00049	.00216	.00144	.00037	.00012
%RSD	150.35	1.3426	156.40	3.6304	.51684

#1	-.00067	.16219	.00194	.01035	.02228
#2	.00002	.15914	-.00010	.00983	.02244

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	6.4364	.00011	-.0091	.00032
Stddev	.00007	.0187	.00011	.0010	.00017
%RSD	138.70	.28994	106.65	10.87	53.031

#1	-.00000	6.4496	.00003	-.0098	.00020
#2	-.00010	6.4232	.00019	-.0084	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00002	1.2823	2.3740	.00081
Stddev	.00009	.00007	.0036	.0043	.00085
%RSD	64.159	353.26	.27726	.17904	104.20

#1	.00008	-.00007	1.2848	2.3710	.00021
#2	.00021	.00003	1.2798	2.3770	.00141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-C-2-A Acquired: 10/31/2018 17:14:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.1984	.23173	-.00009	3.7388	.00032
Stddev	.0030	.00021	.00024	.0111	.00012
%RSD	.13777	.09179	263.59	.29626	36.665

#1	2.2005	.23188	-.00026	3.7466	.00040
#2	2.1962	.23158	.00008	3.7309	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	1.242	-.00264	.00011	3.7900
Stddev	.00046	.001	.00044	.00070	.0038
%RSD	239.60	.0560	16.598	623.66	.10094

#1	-.00052	1.243	-.00233	-.00038	3.7873
#2	.00013	1.242	-.00295	.00061	3.7927

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	.02498	.00346	.00045	.00080
Stddev	.00035	.00014	.00025	.00068	.00008
%RSD	33.036	.54144	7.3219	153.23	9.7740

#1	-.00081	.02489	.00328	.00093	.00086
#2	-.00131	.02508	.00364	-.00004	.00075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-C-2-A Acquired: 10/31/2018 17:14:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00327**
 Stddev .00045
 %RSD 13.837

#1 **.00359**
 #2 **.00295**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2747.7	4163.0	128400.	7939.1
Stddev	.0	5.1	467.	46.4
%RSD	.00037	.12250	.36351	.58481

#1	2747.7	4159.3	128730.	7971.9
#2	2747.8	4166.6	128070.	7906.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.066%	100.92%	98.286%	100.28%
Range				

Sample Name: 480-143868-B-3-A Acquired: 10/31/2018 17:18:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.17221	.00068	.00995	.02229
Stddev	.00023	.03708	.00117	.00035	.00004
%RSD	71.795	21.531	171.20	3.4983	.17612

#1	-.00016	.14599	-.00014	.01019	.02232
#2	-.00048	.19843	.00151	.00970	.02227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	6.4346	.00012	-.0281	.00041
Stddev	.00003	.0054	.00012	.0117	.00009
%RSD	23.489	.08336	100.02	41.68	21.923

#1	-.00009	6.4308	.00003	-.0364	.00048
#2	-.00013	6.4384	.00020	-.0198	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00059	-.00036	1.2785	2.3400	.00023
Stddev	.00013	.00031	.0045	.0048	.00070
%RSD	22.383	87.986	.34981	.20475	306.92

#1	.00050	-.00013	1.2754	2.3366	.00072
#2	.00068	-.00058	1.2817	2.3434	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-B-3-A Acquired: 10/31/2018 17:18:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.1964	.23240	-.00026	3.6894	.00009
Stddev	.0047	.00058	.00001	.0024	.00017
%RSD	.21549	.24981	4.2683	.06599	196.12

#1	2.1930	.23199	-.00026	3.6877	-.00003
#2	2.1997	.23281	-.00025	3.6911	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00092	1.235	-.00062	-.00018	3.7838
Stddev	.00027	.001	.00020	.00014	.0074
%RSD	29.854	.0432	32.674	79.153	.19457

#1	.00073	1.234	-.00047	-.00008	3.7786
#2	.00111	1.235	-.00076	-.00029	3.7890

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.02489	.00299	.00104	.00086
Stddev	.00024	.00003	.00005	.00096	.00009
%RSD	607.45	.12215	1.5662	92.575	10.559

#1	.00013	.02487	.00302	.00172	.00093
#2	-.00021	.02492	.00296	.00036	.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-B-3-A Acquired: 10/31/2018 17:18:19 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00283**
 Stddev .00033
 %RSD 11.674

#1 **.00260**
 #2 **.00307**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2752.9	4169.9	128760.	7930.2
Stddev	.0	4.7	661.	8.3
%RSD	.00092	.11179	.51322	.10495

#1	2752.9	4166.6	129220.	7936.0
#2	2752.9	4173.2	128290.	7924.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.250%	101.09%	98.556%	100.16%
Range				

Sample Name: 480-143868-B-4-A Acquired: 10/31/2018 17:22:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.12157	.00232	.01049	.02290
Stddev	.00014	.01330	.00026	.00037	.00003
%RSD	105.42	10.943	11.056	3.5482	.10980

#1	-.00024	.13097	.00250	.01076	.02292
#2	-.00003	.11216	.00214	.01023	.02288

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	6.5890	.00005	.0055	.00030
Stddev	.00000	.0214	.00009	.0065	.00001
%RSD	.49628	.32409	161.21	119.3	1.9940

#1	-.00004	6.5739	-.00001	.0009	.00031
#2	-.00004	6.6041	.00012	.0101	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	-.00023	1.2634	2.3876	.00033
Stddev	.00002	.00022	.0001	.0181	.00061
%RSD	3.0607	96.422	.00838	.75907	186.32

#1	.00055	-.00038	1.2633	2.4004	.00076
#2	.00053	-.00007	1.2634	2.3748	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-B-4-A Acquired: 10/31/2018 17:22:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.2472	.23501	-.00022	3.7598	.00048
Stddev	.0018	.00031	.00003	.0073	.00007
%RSD	.07828	.13342	12.461	.19517	13.900

#1	2.2460	.23523	-.00024	3.7546	.00053
#2	2.2485	.23478	-.00020	3.7650	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	1.257	-.00143	-.00300	3.7712
Stddev	.00003	.002	.00075	.00056	.0065
%RSD	4.2350	.1719	52.283	18.777	.17124

#1	.00064	1.255	-.00090	-.00260	3.7666
#2	.00060	1.259	-.00195	-.00339	3.7757

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	.02543	.00217	-.00037	.00079
Stddev	.00050	.00014	.00007	.00125	.00021
%RSD	63.377	.54530	3.0135	335.84	26.662

#1	-.00114	.02553	.00222	.00051	.00064
#2	-.00043	.02533	.00213	-.00125	.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143868-B-4-A Acquired: 10/31/2018 17:22:08 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00358**
 Stddev .00035
 %RSD 9.8097

#1 **.00333**
 #2 **.00383**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2747.2	4163.2	128020.	7947.3
Stddev	1.2	2.5	101.	26.3
%RSD	.04304	.05923	.07876	.33100

#1	2748.0	4164.9	128090.	7965.9
#2	2746.3	4161.4	127950.	7928.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.045%	100.92%	97.994%	100.38%
Range				

Sample Name: 480-143708-A-1-A Acquired: 10/31/2018 17:25:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	.23446	.00946	.24380	.16933
Stddev	.00014	.05258	.00320	.00009	.00010
%RSD	20.843	22.426	33.863	.03573	.05801

#1	-.00076	.27163	.00720	.24386	.16926
#2	-.00057	.19728	.01173	.24374	.16940

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	121.73	.00034	-.0242	.00016
Stddev	.00002	.15	.00013	.0212	.00008
%RSD	85.112	.12566	37.937	87.66	50.822

#1	-.00004	121.62	.00043	-.0092	.00021
#2	-.00001	121.84	.00025	-.0392	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00151	-.00007	7.2885	3.5558	.01953
Stddev	.00012	.00004	.0049	.0045	.00016
%RSD	7.6492	60.303	.06777	.12675	.79746

#1	.00143	-.00004	7.2851	3.5590	.01942
#2	.00160	-.00010	7.2920	3.5526	.01964

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143708-A-1-A Acquired: 10/31/2018 17:25:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	72.185	.08427	.00689	49.903	.00560
Stddev	.111	.00011	.00025	.101	.00015
%RSD	.15328	.13596	3.5889	.20249	2.6498

#1	72.107	.08418	.00671	49.832	.00571
#2	72.263	.08435	.00706	49.975	.00550

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	28.31	-.00154	-.00602	10.172
Stddev	.00063	.06	.00005	.00327	.001
%RSD	195.16	.1991	2.9831	54.288	.01402

#1	.00012	28.27	-.00158	-.00834	10.173
#2	-.00077	28.35	-.00151	-.00371	10.171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.51965	.00400	.00176	-.00018
Stddev	.00046	.00019	.00032	.00043	.00017
%RSD	286.81	.03691	8.1153	24.432	95.707

#1	.00017	.51951	.00423	.00207	-.00030
#2	-.00049	.51978	.00377	.00146	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143708-A-1-A Acquired: 10/31/2018 17:25:57 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00298**
 Stddev .00026
 %RSD 8.7053

#1 **.00317**
 #2 **.00280**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2466.7	3903.0	120920.	7707.7
Stddev	4.0	1.5	247.	.8
%RSD	.16074	.03847	.20449	.00999

#1	2463.8	3904.1	121100.	7707.1
#2	2469.5	3902.0	120750.	7708.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.034%	94.616%	92.560%	97.352%
Range				

Sample Name: 480-143708-B-2-A Acquired: 10/31/2018 17:29:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	.02085	.02297	.42046	.21019
Stddev	.00001	.00727	.00130	.00052	.00017
%RSD	1.3878	34.869	5.6727	.12411	.07947

#1	-.00057	.02599	.02205	.42083	.21031
#2	-.00058	.01571	.02389	.42009	.21007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	141.30	.00027	-.0076	.00089
Stddev	.00004	.48	.00006	.0046	.00006
%RSD	56.555	.34150	20.922	60.72	6.2491

#1	-.00004	140.96	.00023	-.0108	.00093
#2	-.00010	141.65	.00031	-.0043	.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00063	-.00047	7.2244	5.0947	.02481
Stddev	.00030	.00014	.0194	.0032	.00054
%RSD	47.744	30.500	.26863	.06234	2.1646

#1	.00042	-.00057	7.2107	5.0925	.02519
#2	.00084	-.00037	7.2381	5.0969	.02443

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143708-B-2-A Acquired: 10/31/2018 17:29:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	86.876	.11287	.00635	79.521	.00845
Stddev	.029	.00001	.00006	.240	.00017
%RSD	.03390	.01235	1.0231	.30229	1.9622

#1	86.897	.11288	.00630	79.351	.00856
#2	86.856	.11286	.00640	79.691	.00833

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	25.48	-.00256	-.00624	11.070
Stddev	.00258	.06	.00007	.00055	.073
%RSD	2062.0	.2311	2.6373	8.8183	.66146

#1	.00170	25.52	-.00261	-.00585	11.018
#2	-.00195	25.44	-.00251	-.00663	11.121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.61484	-.00022	.00165	-.00041
Stddev	.00061	.00171	.00012	.00051	.00027
%RSD	1412.9	.27876	57.366	30.953	66.566

#1	.00039	.61363	-.00013	.00202	-.00060
#2	-.00047	.61606	-.00030	.00129	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143708-B-2-A Acquired: 10/31/2018 17:29:42 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00207**
 Stddev .00041
 %RSD 19.830

#1 **.00178**
 #2 **.00235**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2418.9	3854.9	119650.	7643.7
Stddev	.5	5.7	137.	39.8
%RSD	.02072	.14676	.11477	.52038

#1	2418.5	3850.9	119740.	7671.8
#2	2419.2	3858.9	119550.	7615.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.330%	93.448%	91.584%	96.545%
Range				

Sample Name: 480-143708-D-3-A Acquired: 10/31/2018 17:33:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.00344	.00208	.87475	.26245
Stddev	.00002	.00492	.00239	.00107	.00057
%RSD	3.8775	142.79	115.18	.12260	.21622

#1	-.00056	.00692	.00377	.87551	.26204
#2	-.00053	-.00003	.00039	.87399	.26285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	127.38	.00013	-.0303	.00001
Stddev	.00011	.32	.00011	.0051	.00035
%RSD	142.19	.25262	79.812	16.91	3506.8

#1	.00000	127.15	.00006	-.0267	-.00024
#2	-.00015	127.60	.00021	-.0339	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00085	-.00093	2.1725	4.2293	.02311
Stddev	.00042	.00022	.0023	.0076	.00094
%RSD	48.640	23.936	.10424	.17900	4.0878

#1	.00056	-.00108	2.1709	4.2347	.02244
#2	.00115	-.00077	2.1741	4.2240	.02377

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143708-D-3-A Acquired: 10/31/2018 17:33:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	78.310	.05115	.00080	71.690	.00496
Stddev	.022	.00004	.00000	.046	.00024
%RSD	.02843	.08491	.00030	.06454	4.8817

#1	78.295	.05118	.00080	71.657	.00513
#2	78.326	.05112	.00080	71.723	.00479

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00158	15.79	-.00177	-.00380	10.386
Stddev	.00013	.04	.00074	.00002	.038
%RSD	8.0646	.2811	42.126	.56837	.36630

#1	.00167	15.82	-.00229	-.00381	10.360
#2	.00149	15.76	-.00124	-.00378	10.413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	1.6711	-.00021	.00175	-.00062
Stddev	.00006	.0028	.00055	.00065	.00037
%RSD	11.863	.16971	259.63	37.413	60.192

#1	-.00049	1.6691	.00018	.00129	-.00036
#2	-.00058	1.6731	-.00060	.00221	-.00088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143708-D-3-A Acquired: 10/31/2018 17:33:29 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00185**
 Stddev .00101
 %RSD 54.725

#1 **.00113**
 #2 **.00257**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2449.0	3906.9	120400.	7669.8
Stddev	.4	5.3	46.	38.3
%RSD	.01431	.13647	.03817	.49898

#1	2448.8	3903.1	120370.	7696.9
#2	2449.3	3910.7	120440.	7642.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.406%	94.709%	92.162%	96.875%
Range				

Sample Name: blank Acquired: 10/31/2018 17:37:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.01744	-.00054	-.00012	.00000
Stddev	.00002	.00491	.00118	.00002	.00000
%RSD	1758.2	28.136	219.14	14.672	760.55

#1	.00002	-.01397	.00030	-.00011	.00000
#2	-.00001	-.02091	-.00137	-.00013	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00647	.00003	-.0205	.00016
Stddev	.00001	.00072	.00004	.0080	.00004
%RSD	31.419	11.211	147.50	39.28	27.163

#1	-.00004	.00698	-.00000	-.0261	.00013
#2	-.00003	.00595	.00006	-.0148	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	-.00100	.00110	-.02706	-.00058
Stddev	.00005	.00005	.00413	.01873	.00049
%RSD	75.918	4.7770	377.25	69.220	84.157

#1	-.00011	-.00097	-.00183	-.01381	-.00023
#2	-.00003	-.00104	.00402	-.04030	-.00092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 17:37:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00072	.00002	-.00037	.06185	.00011
Stddev	.00405	.00004	.00001	.00907	.00027
%RSD	562.04	150.38	3.6945	14.667	245.03

#1	.00214	-.00000	-.00038	.06826	-.00008
#2	-.00358	.00005	-.00036	.05543	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.0106	-.00233	.00179	-.05361
Stddev	.00038	.0003	.00032	.00001	.00361
%RSD	235.84	2.745	13.619	.70069	6.7372

#1	-.00011	.0104	-.00210	.00179	-.05617
#2	.00043	.0108	-.00255	.00178	-.05106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.00001	-.00041	.00100	.00002
Stddev	.00020	.00005	.00008	.00082	.00040
%RSD	36.917	522.01	20.453	82.343	2120.7

#1	-.00041	-.00002	-.00035	.00157	-.00027
#2	-.00070	.00004	-.00047	.00042	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 17:37:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00048
Stddev .00081
%RSD 169.28

#1 .00105
#2 -.00009

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2756.2	4166.1	128100.	7771.2
Stddev	.0	1.8	278.	14.0
%RSD	.00049	.04350	.21700	.18015

#1	2756.2	4164.9	127910.	7761.3
#2	2756.2	4167.4	128300.	7781.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.369%	100.99%	98.056%	98.155%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 17:41:09 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50826	25.123	.47401	.45728	.51115	.50168	24.810	.47911
Stddev	.00073	.031	.00264	.00086	.00096	.00109	.057	.00021
%RSD	.14384	.12410	.55784	.18704	.18687	.21664	.22918	.04314
#1	.50877	25.101	.47214	.45789	.51183	.50091	24.770	.47926
#2	.50774	25.145	.47588	.45668	.51048	.50245	24.850	.47896

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197	.48979	.51592	.50587	25.382	25.020	.49153	24.504
Stddev	.0159	.00008	.00119	.00076	.048	.028	.00059	.041
%RSD	80.61	.01628	.23111	.15092	.19097	.10992	.11955	.16761
#1	.0310	.48985	.51677	.50533	25.348	25.039	.49195	24.533
#2	.0085	.48973	.51508	.50641	25.416	25.001	.49112	24.475

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52278	.48117	25.673	.50349	.48485	23.90	.47863	.48414
Stddev	.00002	.00023	.031	.00008	.00109	.02	.00170	.00245
%RSD	.00414	.04802	.11943	.01667	.22464	.0691	.35430	.50686
#1	.52276	.48101	25.694	.50355	.48562	23.89	.47983	.48588
#2	.52279	.48134	25.651	.50343	.48408	23.91	.47743	.48241

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 10/31/2018 17:41:09 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.485	.49925	.53581	.50140	.48109	.52083	.49159
Stddev	.073	.00238	.00088	.00196	.00068	.00044	.00245
%RSD	.29663	.47742	.16407	.39166	.14139	.08507	.49894
#1	24.434	.49757	.53519	.50279	.48061	.52114	.49332
#2	24.536	.50094	.53643	.50002	.48157	.52052	.48985

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2582.2	4026.6	123760.	7665.9
Stddev	5.9	5.6	100.	6.3
%RSD	.22947	.13993	.08056	.08249
#1	2578.0	4022.6	123690.	7661.4
#2	2586.4	4030.6	123830.	7670.3

Sample Name: CCB-4957862 Acquired: 10/31/2018 17:44:52 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.00225	.00163	-.00013	-.00001	-.00011	.00890	.00002
Stddev	.00048	.01924	.00033	.00020	.00001	.00003	.00181	.00003
%RSD	158.70	855.28	20.285	152.34	59.184	27.819	20.333	147.71

#1	.00004	.01585	.00140	.00001	-.00001	-.00009	.01018	.00004
#2	-.00065	-.01136	.00187	-.00027	-.00001	-.00013	.00762	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0189	.00012	.00001	-.00104	-.00126	-.01271	.00034	-.00088
Stddev	.0366	.00006	.00015	.00029	.00184	.02532	.00035	.00164
%RSD	193.6	48.421	1972.6	27.618	146.41	199.15	102.86	187.80

#1	-.0447	.00008	-.00010	-.00125	.00004	-.03062	.00009	.00029
#2	.0070	.00016	.00012	-.00084	-.00256	.00519	.00059	-.00204

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00032	.04687	-.00022	.00067	.0119	-.00074	-.00163
Stddev	.00002	.00019	.01014	.00013	.00006	.0018	.00138	.00184
%RSD	6.5268	57.767	21.641	57.306	8.1990	15.31	187.04	112.78

#1	.00025	.00019	.05404	-.00013	.00064	.0106	-.00172	-.00293
#2	.00028	.00045	.03970	-.00031	.00071	.0132	.00024	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 17:44:52 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04747	-.00013	-.00009	-.00020	.00099	-.00043	.00141
Stddev	.01363	.00064	.00018	.00006	.00094	.00007	.00076
%RSD	28.720	498.48	207.18	29.805	94.665	16.146	53.715

#1	-.05710	.00032	.00004	-.00024	.00033	-.00047	.00087
#2	-.03783	-.00058	-.00021	-.00016	.00165	-.00038	.00194

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2753.5	4177.4	127540.	7746.3
Stddev	.1	8.2	420.	9.3
%RSD	.00286	.19542	.32960	.11995

#1	2753.6	4183.2	127240.	7752.9
#2	2753.5	4171.7	127840.	7739.8

Sample Name: CCVL-4970377 Acquired: 10/31/2018 17:48:44 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00587	.18185	.01443	.01860	.00208	.00193	.50731	.00202
Stddev	.00023	.01597	.00069	.00021	.00000	.00003	.00025	.00006
%RSD	3.9766	8.7807	4.8154	1.1122	.17529	1.4109	.04918	2.8528
#1	.00603	.19314	.01492	.01875	.00208	.00191	.50713	.00206
#2	.00570	.17056	.01393	.01845	.00208	.00195	.50749	.00197

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075	.00395	.00405	.00880	.05287	.43060	.02672	.20217
Stddev	.0036	.00011	.00005	.00008	.00701	.01389	.00048	.00493
%RSD	47.79	2.8938	1.2498	.85554	13.253	3.2248	1.8124	2.4372
#1	.0101	.00387	.00401	.00885	.04792	.44042	.02706	.19869
#2	.0050	.00403	.00408	.00874	.05782	.42078	.02637	.20566

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00308	.00918	1.0097	.01008	.01027	.1914	.01670	.02316
Stddev	.00011	.00002	.0027	.00005	.00100	.0019	.00041	.00111
%RSD	3.5648	.18250	.26669	.53870	9.7452	.9765	2.4766	4.7969
#1	.00316	.00920	1.0116	.01012	.01098	.1927	.01641	.02238
#2	.00301	.00917	1.0078	.01004	.00956	.1901	.01699	.02395

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 17:48:44 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43879	.00929	.00516	.00434	.02014	.00496	.01126
Stddev	.00043	.00037	.00007	.00002	.00040	.00028	.00027
%RSD	.09789	3.9429	1.4076	.51010	1.9934	5.6454	2.4207

#1	.43909	.00955	.00511	.00436	.01986	.00476	.01106
#2	.43848	.00903	.00521	.00432	.02043	.00516	.01145

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2761.9	4182.8	128710.	7757.9
Stddev	2.7	4.1	486.	9.8
%RSD	.09613	.09790	.37791	.12688

#1	2763.8	4185.7	128370.	7764.8
#2	2760.0	4179.9	129060.	7750.9

Sample Name: MB 480-441218/1-A Acquired: 10/31/2018 17:52:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.00785	.00036	-.00004	-.00001
Stddev	.00014	.05794	.00314	.00010	.00001
%RSD	41.692	738.48	876.14	246.18	174.59

#1	-.00044	-.03313	-.00186	-.00011	-.00001
#2	-.00024	.04882	.00258	.00003	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.01245	.00003	-.0026	.00006
Stddev	.00004	.00032	.00009	.0184	.00010
%RSD	63.721	2.5562	310.60	714.5	166.43

#1	-.00004	.01223	.00009	-.0156	.00014
#2	-.00009	.01268	-.00003	.0104	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	-.00091	.00667	-.01301	.00069
Stddev	.00002	.00001	.00281	.01499	.00039
%RSD	3.8334	1.6519	42.035	115.23	57.264

#1	.00043	-.00092	.00866	-.00241	.00097
#2	.00040	-.00090	.00469	-.02361	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441218/1-A Acquired: 10/31/2018 17:52:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00373	.00063	-.00031	.04129	.00034
Stddev	.00233	.00004	.00019	.00102	.00009
%RSD	62.357	7.0871	62.367	2.4657	27.716

#1	-.00538	.00059	-.00044	.04057	.00027
#2	-.00209	.00066	-.00017	.04201	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.0066	-.00021	.00086	-.06915
Stddev	.00130	.0014	.00115	.00228	.00986
%RSD	240.03	21.58	556.38	263.92	14.266

#1	.00038	.0056	.00061	.00248	-.07612
#2	-.00146	.0076	-.00102	-.00075	-.06217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00002	-.00040	.00077	-.00009
Stddev	.00022	.00008	.00004	.00019	.00039
%RSD	71.565	334.08	10.134	24.288	416.31

#1	.00016	.00003	-.00043	.00090	-.00037
#2	.00047	-.00008	-.00037	.00064	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441218/1-A Acquired: 10/31/2018 17:52:35 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00232**
 Stddev .00023
 %RSD 10.116

#1 **.00216**
 #2 **.00249**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2761.8	4214.2	129790.	7981.2
Stddev	3.7	13.4	169.	12.9
%RSD	.13313	.31760	.13043	.16166

#1	2759.2	4204.8	129910.	7972.1
#2	2764.4	4223.7	129670.	7990.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.569%	102.16%	99.347%	100.81%
Range				

Sample Name: LCS 480-441218/2-A Acquired: 10/31/2018 17:56:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04794	9.6359	.18923	.18206	.19700
Stddev	.00020	.0234	.00595	.00074	.00055
%RSD	.40894	.24246	3.1450	.40861	.27704

#1	.04808	9.6194	.18502	.18153	.19739
#2	.04780	9.6524	.19343	.18258	.19662

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20645	9.7628	.19183	-.0253	.18963
Stddev	.00050	.0420	.00021	.0004	.00035
%RSD	.24270	.43015	.10758	1.625	.18223

#1	.20609	9.7925	.19169	-.0250	.18987
#2	.20680	9.7331	.19198	-.0256	.18938

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20341	.19556	10.160	9.2509	.18391
Stddev	.00005	.00013	.013	.0050	.00059
%RSD	.02264	.06589	.12400	.05348	.31873

#1	.20345	.19547	10.151	9.2474	.18432
#2	.20338	.19566	10.169	9.2544	.18349

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441218/2-A Acquired: 10/31/2018 17:56:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8829	.20338	.18360	9.5565	.20588
Stddev	.0025	.00036	.00008	.0356	.00046
%RSD	.02519	.17704	.04285	.37278	.22467

#1	9.8847	.20313	.18365	9.5313	.20556
#2	9.8811	.20363	.18354	9.5817	.20621

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19042	9.074	.18790	.19075	9.3102
Stddev	.00100	.016	.00033	.00120	.0376
%RSD	.52294	.1807	.17393	.62773	.40375

#1	.19113	9.062	.18813	.19160	9.3368
#2	.18972	9.085	.18767	.18990	9.2837

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18944	.20261	.19708	.19283	.20530
Stddev	.00066	.00033	.00048	.00078	.00103
%RSD	.34635	.16223	.24402	.40414	.50247

#1	.18897	.20237	.19674	.19338	.20603
#2	.18990	.20284	.19742	.19228	.20457

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441218/2-A Acquired: 10/31/2018 17:56:26 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20433**
 Stddev .00182
 %RSD .89297

#1 **.20562**
 #2 **.20304**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2689.8	4176.2	127070.	7890.5
Stddev	3.0	7.6	86.	15.8
%RSD	.10996	.18090	.06741	.20046

#1	2691.9	4181.6	127010.	7901.7
#2	2687.8	4170.9	127130.	7879.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.000%	101.24%	97.265%	99.661%
Range				

Sample Name: 480-143548-H-2-D Acquired: 10/31/2018 18:00:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.03730	.00116	.11225	.02781
Stddev	.00002	.02059	.00070	.00005	.00003
%RSD	4.4874	55.200	60.660	.04077	.11313

#1	-.00040	.05186	.00166	.11228	.02779
#2	-.00043	.02274	.00066	.11222	.02783

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	245.73	.00024	-.0015	-.00005
Stddev	.00001	.40	.00006	.0104	.00000
%RSD	6.6964	.16143	23.364	687.0	2.7786

#1	-.00018	246.01	.00028	-.0089	-.00005
#2	-.00016	245.45	.00020	.0058	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	-.00082	.23053	3.9547	.00917
Stddev	.00013	.00039	.00206	.0061	.00115
%RSD	24.129	48.268	.89507	.15421	12.540

#1	.00064	-.00054	.22907	3.9504	.00999
#2	.00045	-.00110	.23199	3.9590	.00836

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-H-2-D Acquired: 10/31/2018 18:00:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	70.686	.02843	.00558	11.699	.00157
Stddev	.114	.00015	.00007	.033	.00004
%RSD	.16072	.51271	1.3154	.27887	2.5553

#1	70.606	.02833	.00552	11.676	.00160
#2	70.766	.02853	.00563	11.722	.00154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	F 184.1	-.00068	-.00709	5.5488
Stddev	.00044	.4	.00008	.00171	.0007
%RSD	77.521	.2047	11.108	24.178	.01211

#1	-.00087	184.4	-.00062	-.00830	5.5483
#2	-.00025	183.8	-.00073	-.00588	5.5492

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00127	1.9112	.00019	.00087	-.00030
Stddev	.00027	.0046	.00014	.00048	.00024
%RSD	21.211	.24023	73.787	54.485	79.869

#1	-.00108	1.9079	.00009	.00054	-.00047
#2	-.00146	1.9144	.00029	.00121	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-H-2-D Acquired: 10/31/2018 18:00:07 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00370**
 Stddev .00005
 %RSD 1.3116

#1 **.00374**
 #2 **.00367**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2443.9	3890.6	119380.	7589.7
Stddev	3.2	2.8	148.	.8
%RSD	.13099	.07283	.12393	.00998

#1	2446.2	3888.6	119270.	7590.3
#2	2441.6	3892.6	119480.	7589.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.222%	94.315%	91.376%	95.863%
Range				

Sample Name: 480-143548-G-3-B Acquired: 10/31/2018 18:03:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.21777	.00083	.13350	.07675
Stddev	.00004	.02769	.00143	.00065	.00010
%RSD	14.543	12.713	171.70	.48477	.12663

#1	-.00032	.23735	.00185	.13396	.07682
#2	-.00026	.19819	-.00018	.13304	.07668

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	207.27	.00029	.0077	.00037
Stddev	.00006	.09	.00009	.0028	.00023
%RSD	69.767	.04434	30.867	36.31	63.071

#1	-.00004	207.33	.00023	.0057	.00020
#2	-.00012	207.20	.00035	.0097	.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00114	.00130	2.3764	6.9219	.01815
Stddev	.00013	.00009	.0088	.0062	.00012
%RSD	11.414	7.0801	.36936	.08929	.65145

#1	.00105	.00136	2.3826	6.9263	.01823
#2	.00124	.00123	2.3702	6.9175	.01806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-G-3-B Acquired: 10/31/2018 18:03:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	64.930	.37499	.01226	149.04	.00317
Stddev	.009	.00001	.00012	.32	.00005
%RSD	.01420	.00257	.96659	.21169	1.5832

#1	64.937	.37500	.01235	149.26	.00313
#2	64.923	.37499	.01218	148.81	.00320

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00084	F 152.8	-.00106	-.00522	7.1051
Stddev	.00034	.3	.00132	.00397	.0057
%RSD	40.439	.1893	124.86	76.176	.08028

#1	.00060	153.0	-.00012	-.00241	7.1091
#2	.00109	152.6	-.00199	-.00803	7.1011

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	2.8695	.00521	.00086	.00235
Stddev	.00079	.0006	.00035	.00074	.00035
%RSD	65.131	.02014	6.7973	85.789	14.991

#1	-.00177	2.8700	.00546	.00139	.00259
#2	-.00066	2.8691	.00496	.00034	.00210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-G-3-B Acquired: 10/31/2018 18:03:54 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01693**
 Stddev .00064
 %RSD 3.7652

#1 **.01648**
 #2 **.01738**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2385.8	3874.1	118950.	7615.4
Stddev	5.4	1.3	286.	1.2
%RSD	.22466	.03358	.24032	.01529

#1	2389.6	3873.2	118750.	7616.3
#2	2382.1	3875.0	119160.	7614.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.150%	93.915%	91.053%	96.188%
Range				

Sample Name: 480-143548-G-4-B Acquired: 10/31/2018 18:07:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.19068	-.00012	.09285	.06676
Stddev	.00014	.01241	.00116	.00055	.00001
%RSD	32.086	6.5066	959.16	.59731	.02084

#1	-.00035	.18191	.00070	.09246	.06675
#2	-.00055	.19945	-.00094	.09324	.06677

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	205.90	.00018	.0057	.00031
Stddev	.00002	.20	.00017	.0156	.00008
%RSD	19.742	.09881	92.290	274.0	26.110

#1	-.00009	206.04	.00006	-.0053	.00025
#2	-.00007	205.75	.00030	.0167	.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00081	-.00018	.66428	5.0832	.01500
Stddev	.00023	.00026	.00360	.0414	.00046
%RSD	28.854	140.33	.54148	.81375	3.0513

#1	.00098	-.00036	.66682	5.0539	.01532
#2	.00065	-.00000	.66174	5.1124	.01468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-G-4-B Acquired: 10/31/2018 18:07:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	58.776	.52736	.01045	77.490	.00332
Stddev	.177	.00072	.00003	.250	.00004
%RSD	.30065	.13622	.29501	.32317	1.0674

#1	58.900	.52787	.01043	77.313	.00330
#2	58.651	.52685	.01047	77.667	.00335

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	F 146.1	-.00180	-.00381	5.9382
Stddev	.00092	.2	.00062	.00174	.0168
%RSD	853.37	.1523	34.591	45.669	.28351

#1	.00054	146.0	-.00224	-.00258	5.9263
#2	-.00075	146.3	-.00136	-.00504	5.9501

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	2.3081	.00337	.00172	.00019
Stddev	.00014	.0024	.00110	.00080	.00013
%RSD	28.684	.10601	32.635	46.486	66.252

#1	-.00060	2.3064	.00414	.00116	.00010
#2	-.00040	2.3099	.00259	.00229	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-G-4-B Acquired: 10/31/2018 18:07:42 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00617**
 Stddev .00114
 %RSD 18.460

#1 **.00698**
 #2 **.00537**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2428.2	3917.3	119680.	7630.5
Stddev	.0	4.7	53.	3.2
%RSD	.00042	.11952	.04429	.04225

#1	2428.2	3920.6	119650.	7628.2
#2	2428.2	3914.0	119720.	7632.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.660%	94.962%	91.611%	96.378%
Range				

Sample Name: 480-143548-G-5-B Acquired: 10/31/2018 18:11:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	3.2806	.00307	.07792	.08774
Stddev	.00028	.0252	.00224	.00011	.00005
%RSD	196.42	.76724	72.947	.14189	.06073

#1	-.00034	3.2628	.00466	.07800	.08778
#2	.00006	3.2984	.00149	.07784	.08770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	100.30	.00025	.0017	.00144
Stddev	.00012	.01	.00010	.0088	.00005
%RSD	300.27	.00910	40.449	510.4	3.2750

#1	.00012	100.31	.00032	-.0045	.00140
#2	-.00004	100.30	.00018	.0080	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00544	.00198	3.8617	9.9759	.01051
Stddev	.00005	.00002	.0127	.0017	.00030
%RSD	.93428	.98995	.32862	.01681	2.8216

#1	.00548	.00199	3.8527	9.9748	.01030
#2	.00540	.00196	3.8707	9.9771	.01072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-G-5-B Acquired: 10/31/2018 18:11:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.113	.19846	.00774	10.455	.00606
Stddev	.019	.00015	.00012	.033	.00017
%RSD	.06404	.07668	1.5323	.31129	2.7540

#1	30.099	.19857	.00765	10.432	.00594
#2	30.127	.19836	.00782	10.478	.00618

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00165	61.99	-.00159	-.00199	9.8571
Stddev	.00114	.01	.00247	.00082	.0119
%RSD	68.988	.0094	155.96	41.125	.12107

#1	.00246	61.98	.00016	-.00141	9.8487
#2	.00085	61.99	-.00333	-.00257	9.8655

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00075	.93752	.05610	.00115	.00797
Stddev	.00085	.00207	.00017	.00022	.00031
%RSD	113.79	.22090	.30782	19.066	3.9227

#1	.00135	.93606	.05623	.00131	.00775
#2	.00015	.93898	.05598	.00100	.00820

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143548-G-5-B Acquired: 10/31/2018 18:11:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.14519**
 Stddev .00059
 %RSD .40705

#1 **.14561**
 #2 **.14477**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2562.8	4059.2	123090.	7754.8
Stddev	1.1	4.2	211.	27.1
%RSD	.04230	.10410	.17148	.34882

#1	2563.5	4062.2	122940.	7773.9
#2	2562.0	4056.2	123240.	7735.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.464%	98.401%	94.217%	97.948%
Range				

Sample Name: 480-143635-D-1-B Acquired: 10/31/2018 18:15:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	.00726	.00089	.03074	.02321
Stddev	.00025	.00086	.00164	.00029	.00003
%RSD	93.849	11.911	183.57	.95607	.11719

#1	-.00009	.00665	-.00027	.03094	.02323
#2	-.00044	.00787	.00205	.03053	.02319

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	44.641	.00025	.0154	-.00006
Stddev	.00000	.239	.00007	.0008	.00010
%RSD	4.0530	.53450	26.054	5.324	161.40

#1	-.00010	44.809	.00030	.0160	.00001
#2	-.00009	44.472	.00020	.0148	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00055	.00126	.09271	2.9026	.00239
Stddev	.00022	.00011	.00086	.0253	.00030
%RSD	39.493	8.8613	.92864	.87253	12.565

#1	.00039	.00134	.09211	2.9205	.00218
#2	.00070	.00118	.09332	2.8847	.00261

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-D-1-B Acquired: 10/31/2018 18:15:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.804	.12036	.00068	57.317	.00051
Stddev	.010	.00018	.00007	.006	.00001
%RSD	.04166	.14757	10.001	.00999	1.8980

#1	23.811	.12024	.00063	57.313	.00050
#2	23.797	.12049	.00072	57.321	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00051	1.920	-.00189	-.00265	2.8185
Stddev	.00012	.009	.00130	.00113	.0110
%RSD	22.685	.4544	68.527	42.738	.38882

#1	.00059	1.926	-.00098	-.00185	2.8107
#2	.00043	1.914	-.00281	-.00345	2.8262

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.10799	.00017	.00097	-.00003
Stddev	.00064	.00014	.00035	.00034	.00015
%RSD	1995.4	.12829	207.70	35.562	547.46

#1	.00048	.10809	.00042	.00073	-.00014
#2	-.00042	.10789	-.00008	.00121	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-D-1-B Acquired: 10/31/2018 18:15:16 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00280**
 Stddev .00011
 %RSD 3.8840

#1 **.00272**
 #2 **.00287**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2564.8	4079.6	123780.	7790.1
Stddev	.1	8.1	380.	37.5
%RSD	.00254	.19949	.30695	.48108

#1	2564.8	4073.8	123510.	7763.6
#2	2564.7	4085.3	124050.	7816.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.536%	98.896%	94.745%	98.394%
Range				

Sample Name: 480-143635-D-2-B Acquired: 10/31/2018 18:19:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.03521	.00263	.03725	.02503
Stddev	.00030	.02074	.00068	.00004	.00008
%RSD	1511.5	58.891	25.992	.09794	.33532

#1	.00023	.02055	.00214	.03723	.02509
#2	-.00019	.04987	.00311	.03728	.02497

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	43.252	.00018	.0005	.00006
Stddev	.00000	.039	.00007	.0010	.00004
%RSD	4.6491	.08998	41.102	185.2	71.625

#1	-.00005	43.280	.00013	-.0002	.00003
#2	-.00004	43.225	.00024	.0012	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00097	.18672	3.0920	.00299
Stddev	.00005	.00056	.00579	.0390	.00012
%RSD	15.215	58.249	3.1014	1.2627	4.0846

#1	.00034	-.00137	.18263	3.1196	.00291
#2	.00027	-.00057	.19082	3.0644	.00308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-D-2-B Acquired: 10/31/2018 18:19:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.772	.02923	.00082	69.277	.00086
Stddev	.005	.00011	.00018	.208	.00009
%RSD	.02028	.36258	21.449	.30091	10.159

#1	23.775	.02915	.00070	69.424	.00092
#2	23.768	.02930	.00095	69.129	.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00086	3.096	-.00092	-.00380	3.3193
Stddev	.00156	.003	.00024	.00036	.0181
%RSD	180.43	.1104	26.364	9.4955	.54513

#1	-.00024	3.099	-.00109	-.00406	3.3321
#2	.00196	3.094	-.00075	-.00355	3.3065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.11785	.00046	.00148	.00028
Stddev	.00015	.00037	.00014	.00007	.00018
%RSD	137.83	.31596	29.465	4.4852	65.405

#1	-.00022	.11812	.00036	.00153	.00015
#2	-.00000	.11759	.00055	.00143	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-D-2-B Acquired: 10/31/2018 18:19:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00403**
Stddev .00100
%RSD 24.710

#1 **.00473**
#2 **.00332**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2556.4	4084.3	123420.	7758.4
Stddev	.2	3.8	230.	19.8
%RSD	.00887	.09366	.18640	.25574

#1	2556.6	4087.0	123260.	7744.3
#2	2556.3	4081.6	123580.	7772.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.238%	99.010%	94.471%	97.993%
Range				

Sample Name: 480-143635-D-3-B Acquired: 10/31/2018 18:22:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.02602	-.00088	.02980	.02361
Stddev	.00069	.02469	.00114	.00038	.00005
%RSD	204.70	94.884	129.64	1.2672	.22971

#1	.00015	.04348	-.00168	.03007	.02357
#2	-.00082	.00856	-.00007	.02954	.02364

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	44.694	.00010	-.0111	-.00014
Stddev	.00001	.049	.00001	.0033	.00013
%RSD	18.250	.11056	6.5386	29.64	87.451

#1	-.00005	44.729	.00010	-.0087	-.00005
#2	-.00006	44.659	.00010	-.0134	-.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	-.00080	.09522	2.9077	.00221
Stddev	.00046	.00018	.00008	.0004	.00097
%RSD	76.067	22.782	.08664	.01214	44.074

#1	.00028	-.00092	.09517	2.9079	.00152
#2	.00094	-.00067	.09528	2.9074	.00290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-D-3-B Acquired: 10/31/2018 18:22:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.897	.12523	.00072	58.287	.00021
Stddev	.017	.00041	.00010	.167	.00003
%RSD	.07152	.32523	13.886	.28736	15.053

#1	23.885	.12494	.00065	58.406	.00018
#2	23.910	.12552	.00079	58.169	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	1.900	-.00289	-.00181	2.8401
Stddev	.00063	.003	.00032	.00019	.0170
%RSD	111.00	.1291	11.022	10.775	.59781

#1	.00102	1.902	-.00311	-.00167	2.8281
#2	.00012	1.898	-.00266	-.00195	2.8521

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.11056	.00010	.00145	-.00001
Stddev	.00054	.00008	.00019	.00041	.00001
%RSD	2994.1	.07414	193.77	28.140	139.48

#1	-.00036	.11062	-.00004	.00173	-.00000
#2	.00040	.11050	.00024	.00116	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-D-3-B Acquired: 10/31/2018 18:22:52 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00269**
 Stddev .00099
 %RSD 36.814

#1 **.00199**
 #2 **.00339**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2576.6	4121.8	123040.	7737.0
Stddev	.1	5.2	199.	2.3
%RSD	.00283	.12514	.16209	.03001

#1	2576.5	4125.4	123180.	7738.6
#2	2576.6	4118.1	122900.	7735.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.957%	99.918%	94.183%	97.723%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 18:26:41 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50799	24.951	.45771	F .44949	.51002	.50572	24.651
Stddev	.00052	.041	.00334	.00105	.00238	.00190	.085
%RSD	.10173	.16391	.72929	.23253	.46654	.37523	.34438

#1	.50835	24.980	.46007	.45023	.50834	.50437	24.591
#2	.50762	24.922	.45535	.44875	.51171	.50706	24.711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46874	-.0238	.48809	.51606	.50856	25.497	25.150
Stddev	.00083	.0283	.00103	.00113	.00062	.119	.144
%RSD	.17621	118.6	.21046	.21849	.12250	.46481	.57068

#1	.46932	-.0438	.48736	.51685	.50812	25.413	25.049
#2	.46815	-.0038	.48881	.51526	.50900	25.581	25.252

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49076	24.518	.52764	.46414	25.963	.50944	.47909
Stddev	.00152	.068	.00097	.00028	.042	.00155	.00210
%RSD	.30906	.27717	.18317	.05993	.16001	.30497	.43872

#1	.48968	24.566	.52833	.46434	25.934	.50834	.47761
#2	.49183	24.470	.52696	.46395	25.993	.51054	.48058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 18:26:41 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.15	.47066	.47928	24.277	.49649	.54104	.50691
Stddev	.03	.00263	.00050	.130	.00336	.00116	.00034
%RSD	.1175	.55818	.10338	.53407	.67644	.21407	.06746

#1	23.17	.46880	.47893	24.185	.49412	.54022	.50715
#2	23.13	.47252	.47964	24.368	.49887	.54186	.50667

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47509	.52287	.48450
Stddev	.00128	.00079	.00067
%RSD	.26920	.15040	.13752

#1	.47600	.52231	.48497
#2	.47419	.52342	.48403

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2582.0	4106.4	123650.	7734.2
Stddev	1.2	8.7	286.	32.8
%RSD	.04716	.21268	.23144	.42383

#1	2582.9	4100.3	123850.	7757.4
#2	2581.1	4112.6	123450.	7711.1

Sample Name: CCB-4957862 Acquired: 10/31/2018 18:30:24 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.00643	-.00006	-.00044	-.00001	-.00009	.01354	.00003
Stddev	.00046	.01084	.00131	.00026	.00001	.00007	.00304	.00012
%RSD	86.271	168.67	2191.3	58.836	46.656	73.239	22.448	425.45

#1	-.00086	.01409	-.00099	-.00063	-.00002	-.00014	.01139	-.00005
#2	-.00021	-.00124	.00087	-.00026	-.00001	-.00004	.01568	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0069	.00020	-.00010	-.00107	.00140	-.00429	.00101	-.00418
Stddev	.0279	.00008	.00007	.00031	.00113	.00341	.00035	.00152
%RSD	406.6	38.330	71.788	28.891	80.950	79.576	34.297	36.388

#1	.0129	.00026	-.00005	-.00129	.00220	-.00670	.00076	-.00526
#2	-.0266	.00015	-.00014	-.00085	.00060	-.00187	.00125	-.00311

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00040	.04622	.00008	.00023	.0146	-.00152	.00012
Stddev	.00003	.00013	.00131	.00002	.00020	.0018	.00038	.00165
%RSD	10.387	33.664	2.8421	21.419	85.415	12.01	24.771	1328.8

#1	.00028	.00050	.04715	.00007	.00009	.0158	-.00125	.00129
#2	.00024	.00031	.04529	.00009	.00038	.0134	-.00178	-.00104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 18:30:24 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02565	.00005	-.00015	-.00025	.00010	-.00019	.00130
Stddev	.00482	.00027	.00001	.00005	.00031	.00007	.00026
%RSD	18.793	494.39	6.8697	20.497	316.15	36.018	19.727

#1	-.02906	-.00013	-.00015	-.00029	-.00012	-.00014	.00112
#2	-.02224	.00024	-.00016	-.00022	.00032	-.00024	.00148

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2755.2	4271.0	128270.	7802.2
Stddev	1.6	3.8	218.	29.5
%RSD	.05842	.08997	.17019	.37800

#1	2756.3	4268.3	128110.	7823.1
#2	2754.0	4273.7	128420.	7781.4

Sample Name: CCVL-4970377 Acquired: 10/31/2018 18:34:16 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00555	.17585	.01506	.01784	.00207	.00196	.50298	.00195
Stddev	.00020	.00143	.00051	.00005	.00001	.00003	.00284	.00013
%RSD	3.5968	.81484	3.3694	.30452	.41947	1.3927	.56511	6.8437
#1	.00541	.17687	.01470	.01787	.00207	.00194	.50097	.00204
#2	.00569	.17484	.01541	.01780	.00208	.00198	.50499	.00186

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072	.00382	.00394	.00846	.05074	.44319	.02740	.20109
Stddev	.0080	.00025	.00008	.00034	.00134	.00470	.00068	.00070
%RSD	111.1	6.4286	2.1478	3.9938	2.6316	1.0602	2.4727	.34876
#1	.0128	.00399	.00400	.00822	.04979	.43987	.02692	.20059
#2	.0015	.00364	.00388	.00870	.05168	.44651	.02788	.20158

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00321	.00888	1.0185	.01040	.00994	.1858	.01656	.02254
Stddev	.00003	.00024	.0114	.00008	.00113	.0010	.00011	.00272
%RSD	.88299	2.7122	1.1168	.75305	11.361	.5335	.65065	12.069
#1	.00319	.00871	1.0266	.01034	.00914	.1865	.01649	.02446
#2	.00323	.00905	1.0105	.01045	.01074	.1851	.01664	.02062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 18:34:16 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43731	.00930	.00518	.00466	.01917	.00476	.01071
Stddev	.02457	.00100	.00005	.00012	.00033	.00019	.00005
%RSD	5.6189	10.722	.99562	2.5999	1.7379	4.0574	.45758
#1	.41993	.00860	.00514	.00474	.01940	.00462	.01068
#2	.45468	.01001	.00521	.00457	.01893	.00490	.01075

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2764.9	4291.9	128300.	7828.2
Stddev	1.8	2.2	406.	26.1
%RSD	.06647	.05016	.31681	.33388
#1	2763.6	4290.4	128010.	7846.6
#2	2766.2	4293.4	128590.	7809.7

Sample Name: 480-143636-D-1-A Acquired: 10/31/2018 18:38:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	.04681	.00355	3.6183	.28598
Stddev	.00017	.02032	.00449	.0024	.00032
%RSD	29.061	43.403	126.41	.06618	.11221

#1	-.00071	.06117	.00672	3.6200	.28620
#2	-.00047	.03244	.00038	3.6166	.28575

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	101.92	.00046	.0010	.00873
Stddev	.00001	.03	.00010	.0344	.00013
%RSD	6.1317	.03051	21.712	3508.	1.4328

#1	-.00011	101.90	.00053	-.0233	.00864
#2	-.00010	101.94	.00039	.0253	.00882

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00889	.00320	3.6337	283.17	.05000
Stddev	.00050	.00047	.0036	.38	.00005
%RSD	5.6102	14.771	.09978	.13313	.10257

#1	.00924	.00354	3.6363	283.44	.04997
#2	.00854	.00287	3.6312	282.91	.05004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143636-D-1-A Acquired: 10/31/2018 18:38:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	132.79	.09134	.00097	855.80	.03829
Stddev	.05	.00023	.00002	1.30	.00023
%RSD	.04068	.25501	2.5637	.15140	.59423

#1	132.76	.09118	.00099	856.72	.03813
#2	132.83	.09151	.00095	854.88	.03845

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00285	21.18	.00009	-.00933	12.330
Stddev	.00008	.03	.00013	.00336	.020
%RSD	2.7571	.1252	136.34	36.031	.16567

#1	.00279	21.20	.00018	-.00696	12.316
#2	.00290	21.16	.00000	-.01171	12.345

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01006	.98791	.00257	.00079	.00086
Stddev	.00088	.00103	.00002	.00058	.00004
%RSD	8.7721	.10463	.59304	73.202	4.6770

#1	.01069	.98864	.00256	.00038	.00083
#2	.00944	.98718	.00258	.00119	.00088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143636-D-1-A Acquired: 10/31/2018 18:38:07 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01671**
 Stddev .00087
 %RSD 5.2070

#1 **.01733**
 #2 **.01610**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2148.8	3739.5	111310.	7593.1
Stddev	1.7	2.5	98.	7.9
%RSD	.07891	.06644	.08770	.10439

#1	2147.6	3737.7	111250.	7587.5
#2	2150.0	3741.2	111380.	7598.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.691%	90.651%	85.206%	95.905%
Range				

Sample Name: 480-143841-A-5-A Acquired: 10/31/2018 18:41:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.31501	.02069	.00897	.16312
Stddev	.00026	.02870	.00321	.00037	.00012
%RSD	42.130	9.1117	15.500	4.1687	.07149

#1	.00079	.29472	.01842	.00924	.16304
#2	.00043	.33531	.02295	.00871	.16321

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	200.05	.02994	.0641	.01572
Stddev	.00010	.49	.00009	.0004	.00000
%RSD	1161.6	.24743	.28958	.6304	.01924

#1	-.00006	200.40	.03000	.0644	.01572
#2	.00008	199.70	.02988	.0638	.01572

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00626	5.1322	4.3191	.00278
Stddev	.00009	.00040	.0145	.0263	.00041
%RSD	15.094	6.3763	.28324	.60936	14.912

#1	.00068	.00654	5.1219	4.3377	.00307
#2	.00055	.00598	5.1424	4.3005	.00249

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-5-A Acquired: 10/31/2018 18:41:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3507	5.8149	.01146	164.91	.00218
Stddev	.0073	.0202	.00012	.07	.00002
%RSD	.53744	.34757	1.0258	.04544	.96211

#1	1.3456	5.8006	.01154	164.86	.00216
#2	1.3559	5.8292	.01137	164.97	.00219

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00287	F 154.7	-.00184	-.00419	2.1204
Stddev	.00118	.1	.00247	.00234	.0123
%RSD	41.226	.0715	133.90	55.861	.58137

#1	.00371	154.8	-.00359	-.00254	2.1291
#2	.00204	154.6	-.00010	-.00585	2.1117

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.39087	.00513	-.00098	.00003
Stddev	.00128	.00088	.00020	.00042	.00014
%RSD	672.91	.22417	3.8833	42.740	537.58

#1	.00072	.39149	.00527	-.00068	-.00007
#2	-.00110	.39025	.00499	-.00127	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-5-A Acquired: 10/31/2018 18:41:59 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03999**
 Stddev .00077
 %RSD 1.9350

#1 **.03944**
 #2 **.04054**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2417.4	3981.3	119400.	7695.8
Stddev	3.0	.5	88.	14.5
%RSD	.12221	.01176	.07363	.18900

#1	2415.3	3981.6	119470.	7685.5
#2	2419.5	3981.0	119340.	7706.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.276%	96.513%	91.397%	97.203%
Range				

Sample Name: 480-143841-A-6-A Acquired: 10/31/2018 18:45:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00249	2.6880	.20332	.00489	.52234
Stddev	.00023	.0792	.00361	.00027	.00292
%RSD	9.1343	2.9466	1.7735	5.4976	.55899

#1	.00265	2.7440	.20587	.00508	.52028
#2	.00233	2.6320	.20078	.00470	.52441

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	F 1126.1	3.2877	.0979	.01627
Stddev	.00004	2.2	.0051	.0081	.00007
%RSD	77.869	.19108	.15464	8.266	.43057

#1	.00003	1124.6	3.2913	.0922	.01622
#2	.00009	1127.7	3.2841	.1036	.01632

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00287	.03226	3.1415	5.0046	.01115
Stddev	.00004	.00007	.0064	.0104	.00100
%RSD	1.4955	.22181	.20340	.20791	8.9665

#1	.00290	.03231	3.1460	5.0120	.01045
#2	.00284	.03221	3.1370	4.9973	.01186

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-6-A Acquired: 10/31/2018 18:45:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.0099	13.216	.00691	5.5609	.00504
Stddev	.0007	.039	.00001	.0062	.00029
%RSD	.03337	.29269	.09166	.11200	5.7393

#1	2.0095	13.188	.00691	5.5653	.00484
#2	2.0104	13.243	.00690	5.5565	.00525

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00189	F 1037.	-.00142	.03179	5.6037
Stddev	.00087	2.	.00139	.00048	.0139
%RSD	46.169	.1577	97.390	1.4948	.24760

#1	.00250	1038.	-.00044	.03145	5.6135
#2	.00127	1036.	-.00241	.03212	5.5939

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00141	.80244	.14818	-.00669	.00636
Stddev	.00016	.00049	.00008	.00125	.00008
%RSD	11.452	.06154	.05149	18.657	1.2711

#1	-.00152	.80279	.14823	-.00581	.00630
#2	-.00129	.80209	.14813	-.00757	.00642

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-6-A Acquired: 10/31/2018 18:45:57 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.05118**
 Stddev .00006
 %RSD .11688

#1 **.05113**
 #2 **.05122**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2198.9	3739.3	114020.	7576.4
Stddev	1.7	3.9	122.	5.8
%RSD	.07565	.10317	.10709	.07690

#1	2200.0	3736.6	114100.	7580.5
#2	2197.7	3742.1	113930.	7572.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.476%	90.648%	87.275%	95.695%
Range				

Sample Name: 480-143841-A-7-A Acquired: 10/31/2018 18:50:00 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	1.0060	.02946	.00417	.07703
Stddev	.00023	.0614	.00127	.00021	.00013
%RSD	1155.8	6.0989	4.3121	5.1385	.16996

#1	.00014	1.0494	.02856	.00432	.07712
#2	-.00018	.96259	.03036	.00402	.07693

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	99.137	.00472	-.0171	.00510
Stddev	.00003	.002	.00015	.0425	.00011
%RSD	31.378	.00252	3.2575	248.8	2.2081

#1	-.00009	99.135	.00483	-.0471	.00502
#2	-.00013	99.139	.00461	.0130	.00518

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02039	.01125	19.781	1.4460	.00142
Stddev	.00004	.00013	.003	.0002	.00023
%RSD	.18129	1.1246	.01575	.01277	16.387

#1	.02037	.01134	19.779	1.4462	.00126
#2	.02042	.01116	19.783	1.4459	.00159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-7-A Acquired: 10/31/2018 18:50:00 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.81467	.78094	.01309	12.437	.00684
Stddev	.00068	.00099	.00005	.006	.00009
%RSD	.08380	.12675	.38938	.05093	1.3523

#1	.81516	.78164	.01313	12.432	.00677
#2	.81419	.78024	.01306	12.441	.00690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01288	F 100.4	-.00131	.00273	2.8359
Stddev	.00086	.2	.00185	.00120	.0080
%RSD	6.6944	.1641	141.24	44.136	.28254

#1	.01227	100.2	-.00000	.00188	2.8302
#2	.01349	100.5	-.00262	.00358	2.8416

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.02658	.02276	.00147	.00200
Stddev	.00014	.00008	.00014	.00023	.00027
%RSD	47.642	.28326	.60814	16.007	13.379

#1	-.00019	.02653	.02266	.00163	.00218
#2	-.00038	.02664	.02286	.00130	.00181

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-7-A Acquired: 10/31/2018 18:50:00 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03465**
 Stddev .00054
 %RSD 1.5699

#1 **.03427**
 #2 **.03504**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2617.8	4124.6	125130.	7868.5
Stddev	1.3	12.2	148.	2.9
%RSD	.04895	.29531	.11788	.03644

#1	2618.7	4133.2	125020.	7870.5
#2	2616.9	4116.0	125230.	7866.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.428%	99.987%	95.779%	99.383%
Range				

Sample Name: 480-143841-A-8-A Acquired: 10/31/2018 18:53:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00113	4.0316	.01147	.00475	.08901
Stddev	.00004	.0299	.00006	.00034	.00014
%RSD	3.1129	.74030	.52883	7.2358	.15890

#1	-.00116	4.0105	.01143	.00499	.08911
#2	-.00111	4.0527	.01151	.00450	.08891

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00048	328.69	.01339	.9284	.19965
Stddev	.00005	.34	.00006	.0063	.00029
%RSD	10.919	.10290	.47149	.6737	.14515

#1	.00044	328.46	.01344	.9240	.19985
#2	.00051	328.93	.01335	.9328	.19944

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00327	.03994	38.461	4.5948	.00757
Stddev	.00003	.00028	.021	.0396	.00057
%RSD	.76598	.70262	.05393	.86167	7.5560

#1	.00326	.04013	38.476	4.5668	.00797
#2	.00329	.03974	38.447	4.6228	.00716

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-8-A Acquired: 10/31/2018 18:53:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mn2576	Mo2020	Na8183
Line	279.079 {121}2	257.610 {131}2	257.610 {131}3	202.030 {467}	818.326 { 41}
IS Ref	(Y_3600)	(Y_3774)	(Y_3600)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3298	15.569	14.844	.00032	53.365
Stddev	.0046	.025	.011	.00000	.013
%RSD	.34590	.15929	.07466	.71173	.02403

#1	1.3330	15.586	14.836	.00032	53.356
#2	1.3265	15.551	14.852	.00032	53.374

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00524	.01313	F 351.9	-.00323	.00100
Stddev	.00032	.00031	.7	.00058	.00032
%RSD	6.1822	2.3323	.1942	17.996	32.441

#1	.00547	.01335	352.4	-.00282	.00077
#2	.00501	.01292	351.4	-.00365	.00123

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			90.00		
Low Limit			-.2000		

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.1319	-.00045	.62116	.15399	-.00973
Stddev	.0266	.00030	.00127	.00056	.00006
%RSD	.29148	67.397	.20417	.36571	.66197

#1	9.1507	-.00066	.62206	.15439	-.00969
#2	9.1131	-.00023	.62026	.15359	-.00978

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-8-A Acquired: 10/31/2018 18:53:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	.00421	.04323
Stddev	.00003	.00037
%RSD	.66363	.86191

#1	.00423	.04349
#2	.00419	.04297

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2416.1	4206.1	128820.	8293.4
Stddev	.9	7.7	.	13.8
%RSD	.03667	.18266	.00024	.16584

#1	2415.5	4200.6	128820.	8283.7
#2	2416.7	4211.5	128820.	8303.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.230%	101.96%	98.607%	104.75%
Range				

Sample Name: 480-143841-A-9-A Acquired: 10/31/2018 18:57:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00144	29.991	.11676	.01915	.12482
Stddev	.00029	.019	.00063	.00001	.00021
%RSD	20.264	.06437	.54195	.06042	.16856

#1	-.00164	30.004	.11721	.01916	.12497
#2	-.00123	29.977	.11632	.01914	.12467

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00170	278.82	.00890	.3830	.01135
Stddev	.00005	.56	.00006	.0134	.00012
%RSD	3.1370	.20053	.66110	3.489	1.0696

#1	.00173	278.43	.00886	.3925	.01144
#2	.00166	279.22	.00895	.3736	.01127

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03182	.01265	45.488	6.9220	.03500
Stddev	.00001	.00014	.006	.0181	.00030
%RSD	.02171	1.0743	.01356	.26071	.87063

#1	.03182	.01275	45.484	6.9348	.03522
#2	.03183	.01256	45.492	6.9093	.03478

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-9-A Acquired: 10/31/2018 18:57:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8566	34.754	.02206	68.018	.01385
Stddev	.0363	.086	.00005	.212	.00061
%RSD	.36802	.24718	.22240	.31180	4.3806

#1	9.8309	34.815	.02210	68.168	.01428
#2	9.8822	34.693	.02203	67.868	.01342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02949	F 252.7	-.00199	.00836	29.369
Stddev	.00135	.2	.00061	.00050	.078
%RSD	4.5879	.0772	30.436	5.9719	.26478

#1	.02854	252.5	-.00156	.00800	29.424
#2	.03045	252.8	-.00242	.00871	29.314

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.76489	1.1752	-.01516	.03868
Stddev	.00031	.00310	.0004	.00151	.00024
%RSD	45.669	.40484	.03572	9.9697	.61722

#1	.00090	.76708	1.1749	-.01623	.03851
#2	.00046	.76270	1.1755	-.01409	.03885

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-9-A Acquired: 10/31/2018 18:57:43 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.06584**
 Stddev .00101
 %RSD 1.5277

#1 **.06513**
 #2 **.06655**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2395.5	4179.2	127660.	8308.5
Stddev	.8	3.7	6.	6.8
%RSD	.03425	.08971	.00502	.08227

#1	2394.9	4181.9	127660.	8303.7
#2	2396.1	4176.6	127660.	8313.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.494%	101.31%	97.717%	104.94%
Range				

Sample Name: 480-143841-A-11-A Acquired: 10/31/2018 19:01:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.37100	.00302	.00236	.03379
Stddev	.00010	.00553	.00373	.00028	.00006
%RSD	16.779	1.4903	123.26	11.981	.17707

#1	-.00051	.36709	.00039	.00256	.03383
#2	-.00064	.37491	.00566	.00216	.03374

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	121.68	.00027	-.0243	.00103
Stddev	.00000	.44	.00007	.0040	.00002
%RSD	2.5055	.36178	25.441	16.59	2.0239

#1	-.00011	121.37	.00022	-.0272	.00102
#2	-.00011	122.00	.00031	-.0215	.00105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	-.00064	1.0344	.48614	.00120
Stddev	.00018	.00019	.0021	.00472	.00075
%RSD	93.250	30.266	.20711	.97148	62.512

#1	.00007	-.00050	1.0329	.48948	.00067
#2	.00032	-.00078	1.0359	.48280	.00173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-11-A Acquired: 10/31/2018 19:01:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05538	.41842	.00736	36.639	-.00012
Stddev	.00215	.00035	.00005	.083	.00031
%RSD	3.8912	.08456	.66250	.22682	247.90

#1	.05386	.41817	.00740	36.580	-.00034
#2	.05690	.41867	.00733	36.698	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	F 94.57	-.00205	-.00058	.56357
Stddev	.00197	.25	.00124	.00141	.03091
%RSD	365.52	.2610	60.591	240.39	5.4849

#1	-.00193	94.75	-.00293	-.00158	.54171
#2	.00085	94.40	-.00117	.00041	.58543

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.03003	.00081	.00169	.00004
Stddev	.00076	.00002	.00026	.00001	.00051
%RSD	6002.4	.07564	31.920	.39026	1211.1

#1	.00055	.03002	.00063	.00169	.00041
#2	-.00053	.03005	.00100	.00170	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-A-11-A Acquired: 10/31/2018 19:01:41 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00294**
 Stddev .00075
 %RSD 25.501

#1 **.00241**
 #2 **.00347**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.5	4093.8	123810.	7855.8
Stddev	1.4	1.9	74.	9.2
%RSD	.05597	.04657	.05988	.11695

#1	2581.6	4092.5	123760.	7862.3
#2	2579.5	4095.2	123860.	7849.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.099%	99.242%	94.772%	99.224%
Range				

Sample Name: 480-143899-C-1-A Acquired: 10/31/2018 19:05:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.00185	.00129	.02338	.05580
Stddev	.00016	.01058	.00014	.00016	.00002
%RSD	55.915	570.78	10.993	.68839	.04019

#1	-.00040	-.00563	.00139	.02349	.05578
#2	-.00017	.00934	.00119	.02326	.05581

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	49.034	.00013	.0092	-.00020
Stddev	.00001	.066	.00004	.0220	.00017
%RSD	13.667	.13422	28.159	238.9	83.334

#1	-.00011	49.081	.00016	.0248	-.00008
#2	-.00009	48.988	.00010	-.0064	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.00137	.00500	1.6830	.00238
Stddev	.00021	.00015	.00367	.0097	.00015
%RSD	65.160	10.877	73.444	.57402	6.1564

#1	.00047	-.00126	.00760	1.6899	.00228
#2	.00017	-.00147	.00240	1.6762	.00249

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-A Acquired: 10/31/2018 19:05:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.8686	.00062	-.00022	19.891	-.00025
Stddev	.0310	.00006	.00026	.048	.00015
%RSD	.34983	9.4858	119.13	.23896	59.753

#1	8.8905	.00057	-.00003	19.924	-.00014
#2	8.8466	.00066	-.00040	19.857	-.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	3.538	-.00238	-.00210	3.5302
Stddev	.00025	.001	.00020	.00054	.0248
%RSD	106.18	.0357	8.3501	25.551	.70281

#1	-.00042	3.537	-.00252	-.00172	3.5477
#2	-.00006	3.539	-.00224	-.00247	3.5126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.09934	-.00029	.00146	.00018
Stddev	.00009	.00004	.00005	.00054	.00041
%RSD	52.890	.04234	17.680	36.970	228.78

#1	-.00010	.09937	-.00032	.00185	.00047
#2	-.00023	.09931	-.00025	.00108	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-A Acquired: 10/31/2018 19:05:29 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00253**
 Stddev .00073
 %RSD 28.833

#1 **.00201**
 #2 **.00305**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2650.8	4172.0	125850.	7933.0
Stddev	.5	2.4	92.	40.2
%RSD	.01913	.05843	.07318	.50697

#1	2651.2	4173.8	125920.	7904.5
#2	2650.5	4170.3	125790.	7961.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.608%	101.14%	96.335%	100.20%
Range				

Sample Name: 480-143899-C-1-Asd@5 Acquired: 10/31/2018 19:09:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	-.01139	.00021	.00401	.01119
Stddev	.00050	.01017	.00169	.00025	.00004
%RSD	193.19	89.324	794.77	6.3451	.32717

#1	.00010	-.01858	-.00098	.00383	.01122
#2	-.00062	-.00420	.00141	.00419	.01117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	10.031	-.00002	-.0067	.00003
Stddev	.00005	.017	.00004	.0127	.00006
%RSD	47.439	.16591	231.96	187.8	237.63

#1	-.00007	10.043	-.00005	.0022	-.00002
#2	-.00013	10.019	.00001	-.0157	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	-.00156	.00067	.27852	.00073
Stddev	.00035	.00037	.00091	.00674	.00055
%RSD	87.716	23.497	136.01	2.4216	75.534

#1	.00015	-.00181	.00132	.28329	.00113
#2	.00066	-.00130	.00003	.27375	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-Asd@5 Acquired: 10/31/2018 19:09:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.7884	.00010	-.00038	3.8827	-.00005
Stddev	.0103	.00007	.00008	.0121	.00013
%RSD	.57291	73.832	21.009	.31305	281.68

#1	1.7812	.00015	-.00032	3.8741	-.00014
#2	1.7956	.00005	-.00044	3.8913	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	.7256	-.00232	-.00006	.66638
Stddev	.00015	.0052	.00023	.00085	.00816
%RSD	24.884	.7164	9.7515	1402.6	1.2252

#1	-.00072	.7219	-.00248	-.00066	.67215
#2	-.00051	.7293	-.00216	.00054	.66060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.01975	-.00045	.00076	-.00023
Stddev	.00033	.00010	.00017	.00090	.00018
%RSD	107.81	.48966	38.257	117.73	77.060

#1	-.00054	.01982	-.00057	.00140	-.00010
#2	-.00007	.01968	-.00033	.00013	-.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-Asd@5 Acquired: 10/31/2018 19:09:17 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00020**
 Stddev .00097
 %RSD 482.31

#1 -.00049
 #2 .00089

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2745.3	4279.8	128340.	7942.5
Stddev	.3	2.6	103.	7.8
%RSD	.01062	.06158	.07990	.09832

#1	2745.1	4281.7	128420.	7937.0
#2	2745.5	4277.9	128270.	7948.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.980%	103.75%	98.240%	100.32%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 19:13:08 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50455	24.614	F .44687	F .44076	.50493	.50319	24.595
Stddev	.00085	.187	.00258	.00027	.00050	.00156	.050
%RSD	.16783	.76091	.57736	.06211	.09920	.31097	.20214

#1	.50515	24.747	.44869	.44095	.50528	.50430	24.630
#2	.50396	24.482	.44504	.44057	.50457	.50208	24.560

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46181	-.0009	.48506	.51551	.50305	25.361	25.040
Stddev	.00065	.0110	.00006	.00036	.00017	.061	.102
%RSD	.14008	1182.	.01279	.07003	.03314	.24229	.40553

#1	.46226	-.0087	.48502	.51526	.50293	25.404	25.112
#2	.46135	.0069	.48510	.51577	.50317	25.317	24.969

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48629	24.404	.52714	.45484	25.600	.50894	.47483
Stddev	.00367	.002	.00004	.00081	.207	.00028	.00068
%RSD	.75540	.00835	.00834	.17881	.80882	.05533	.14326

#1	.48889	24.403	.52711	.45541	25.746	.50874	.47435
#2	.48370	24.406	.52718	.45426	25.453	.50914	.47532

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 19:13:08 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.57	.46213	.47095	24.192	.49464	.53438	.50386
Stddev	.01	.00090	.00055	.001	.00015	.00323	.00091
%RSD	.0600	.19399	.11769	.00463	.03056	.60437	.18130

#1	22.56	.46149	.47056	24.193	.49475	.53666	.50322
#2	22.57	.46276	.47134	24.191	.49453	.53210	.50451

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46736	.52127	.48860
Stddev	.00169	.00143	.00023
%RSD	.36084	.27415	.04758

#1	.46617	.52228	.48876
#2	.46855	.52026	.48843

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2600.7	4181.7	124090.	7723.7
Stddev	2.3	9.1	49.	40.4
%RSD	.08965	.21862	.03929	.52252

#1	2599.1	4175.3	124120.	7695.2
#2	2602.4	4188.2	124050.	7752.2

Sample Name: CCB-4957862 Acquired: 10/31/2018 19:16:51 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	-.00257	-.00045	-.00006	-.00001	-.00016	.01559	.00005
Stddev	.00005	.00728	.00034	.00014	.00002	.00005	.00160	.00012
%RSD	29.069	283.09	75.936	236.64	175.92	33.871	10.237	247.66

#1	-.00015	-.00772	-.00021	-.00015	.00000	-.00012	.01672	.00014
#2	-.00023	.00258	-.00069	.00004	-.00003	-.00020	.01446	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0099	.00006	.00012	-.00160	.00015	-.02537	.00032	-.00450
Stddev	.0087	.00002	.00015	.00019	.00417	.02147	.00018	.00199
%RSD	87.69	38.747	131.87	11.688	2769.9	84.638	57.282	44.332

#1	.0160	.00004	.00023	-.00173	-.00280	-.01018	.00045	-.00309
#2	.0037	.00007	.00001	-.00147	.00310	-.04055	.00019	-.00591

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.00033	.03676	-.00007	-.00003	.0377	-.00131	-.00095
Stddev	.00001	.00002	.00068	.00008	.00104	.0027	.00003	.00069
%RSD	3.7195	4.9741	1.8473	115.83	3249.4	7.092	2.4869	73.136

#1	.00039	.00034	.03724	-.00012	.00070	.0396	-.00134	-.00046
#2	.00037	.00032	.03628	-.00001	-.00077	.0358	-.00129	-.00144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 19:16:51 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03613	-0.00019	-0.00010	-0.00035	.00108	-0.00027	.00072
Stddev	.02448	.00000	.00006	.00035	.00019	.00023	.00059
%RSD	67.763	2.3916	61.954	99.156	18.017	82.676	81.014

#1	-0.05344	-0.00018	-0.00006	-0.00060	.00121	-0.00011	.00114
#2	-0.01882	-0.00019	-0.00014	-0.00010	.00094	-0.00043	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2762.0	4304.8	127830.	7714.3
Stddev	1.9	6.3	183.	23.8
%RSD	.06990	.14569	.14289	.30902

#1	2760.6	4300.3	127700.	7697.5
#2	2763.3	4309.2	127960.	7731.2

Sample Name: CCVL-4970377 Acquired: 10/31/2018 19:20:44 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00551	.19746	.01381	.01820	.00204	.00194	.51329	.00200
Stddev	.00026	.03593	.00017	.00045	.00000	.00010	.00257	.00004
%RSD	4.7729	18.196	1.2264	2.4869	.15227	4.9465	.50121	2.0948
#1	.00532	.22287	.01393	.01852	.00204	.00188	.51511	.00197
#2	.00569	.17206	.01369	.01788	.00204	.00201	.51147	.00203

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0151	.00384	.00400	.00896	.04974	.46239	.02767	.20322
Stddev	.0104	.00004	.00003	.00041	.00091	.01395	.00063	.00219
%RSD	68.86	.96592	.65793	4.5315	1.8285	3.0162	2.2833	1.0767
#1	-.0077	.00387	.00398	.00867	.05038	.47225	.02811	.20167
#2	-.0224	.00381	.00401	.00924	.04910	.45253	.02722	.20476

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00318	.00879	.99691	.01041	.01080	.2083	.01681	.02365
Stddev	.00005	.00007	.00194	.00014	.00009	.0041	.00001	.00061
%RSD	1.4867	.80002	.19490	1.3626	.87001	1.975	.07644	2.5853
#1	.00315	.00884	.99828	.01051	.01087	.2054	.01682	.02408
#2	.00322	.00874	.99554	.01031	.01074	.2112	.01680	.02322

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 19:20:44 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43734	.00909	.00512	.00463	.01840	.00478	.00958
Stddev	.00673	.00020	.00007	.00008	.00005	.00009	.00006
%RSD	1.5399	2.1721	1.4121	1.7066	.26145	1.9518	.63493
#1	.43258	.00923	.00506	.00457	.01843	.00471	.00954
#2	.44210	.00895	.00517	.00468	.01836	.00484	.00962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2766.5	4301.5	130180.	7917.7
Stddev	2.7	10.4	80.	23.9
%RSD	.09868	.24116	.06107	.30238
#1	2768.5	4308.9	130240.	7900.8
#2	2764.6	4294.2	130130.	7934.6

Sample Name: 480-143899-C-1-Apds Acquired: 10/31/2018 19:24:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05088	10.150	.19068	.21569	.25997
Stddev	.00063	.004	.00013	.00021	.00022
%RSD	1.2382	.03620	.06990	.09870	.08396

#1	.05132	10.148	.19059	.21554	.26013
#2	.05043	10.153	.19078	.21584	.25982

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21310	57.714	.19469	.0208	.19442
Stddev	.00041	.007	.00016	.0174	.00026
%RSD	.19172	.01239	.08280	83.90	.13304

#1	.21338	57.709	.19458	.0331	.19424
#2	.21281	57.719	.19481	.0084	.19460

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20793	.20069	10.316	11.800	.20120
Stddev	.00047	.00039	.019	.028	.00089
%RSD	.22457	.19651	.18524	.23703	.44309

#1	.20826	.20097	10.330	11.819	.20183
#2	.20760	.20041	10.303	11.780	.20057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-Apds Acquired: 10/31/2018 19:24:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.618	.20578	.18438	29.690	.21244
Stddev	.016	.00003	.00038	.099	.00033
%RSD	.08714	.01661	.20457	.33449	.15420

#1	18.607	.20581	.18411	29.761	.21221
#2	18.630	.20576	.18465	29.620	.21268

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19597	12.92	.19158	.19529	13.231
Stddev	.00170	.01	.00207	.00366	.053
%RSD	.86615	.0631	1.0783	1.8760	.40272

#1	.19717	12.91	.19012	.19789	13.193
#2	.19477	12.92	.19304	.19270	13.269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20184	.30961	.20191	.19477	.21289
Stddev	.00143	.00015	.00024	.00158	.00049
%RSD	.70711	.04817	.11807	.81067	.22828

#1	.20083	.30972	.20207	.19589	.21323
#2	.20285	.30950	.20174	.19365	.21255

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-Apds Acquired: 10/31/2018 19:24:35 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20914**
 Stddev .00048
 %RSD .22903

#1 **.20880**
 #2 **.20948**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2588.5	4148.0	124810.	7874.5
Stddev	1.8	.6	536.	16.6
%RSD	.07117	.01461	.42954	.21081

#1	2587.2	4148.5	124430.	7886.2
#2	2589.8	4147.6	125190.	7862.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.384%	100.56%	95.536%	99.460%
Range				

Sample Name: 480-143899-C-1-B MS Acquired: 10/31/2018 19:28:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04869	9.8903	.18288	.20946	.25520
Stddev	.00038	.0365	.00204	.00014	.00018
%RSD	.77356	.36894	1.1141	.06839	.07187

#1	.04843	9.8645	.18432	.20956	.25533
#2	.04896	9.9161	.18144	.20936	.25507

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20424	58.405	.18731	-.0069	.18660
Stddev	.00036	.018	.00000	.0150	.00013
%RSD	.17673	.03078	.00122	216.6	.06928

#1	.20399	58.418	.18731	-.0175	.18670
#2	.20450	58.393	.18731	.0037	.18651

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20024	.19133	9.8935	11.484	.19525
Stddev	.00081	.00001	.0158	.023	.00055
%RSD	.40561	.00602	.15997	.20266	.27995

#1	.20082	.19134	9.8823	11.501	.19486
#2	.19967	.19132	9.9047	11.468	.19564

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-B MS Acquired: 10/31/2018 19:28:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.380	.19713	.17823	30.003	.20308
Stddev	.047	.00065	.00005	.008	.00026
%RSD	.25328	.32792	.02730	.02708	.12835

#1	18.412	.19758	.17820	29.998	.20327
#2	18.347	.19667	.17826	30.009	.20290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18834	12.71	.18326	.18496	12.922
Stddev	.00077	.01	.00176	.00176	.062
%RSD	.40973	.1150	.96096	.95348	.47782

#1	.18780	12.70	.18450	.18621	12.966
#2	.18889	12.72	.18201	.18371	12.878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19353	.30731	.19349	.18696	.20276
Stddev	.00053	.00032	.00033	.00007	.00150
%RSD	.27245	.10415	.17233	.03525	.74172

#1	.19390	.30709	.19325	.18691	.20382
#2	.19315	.30754	.19373	.18701	.20169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-B MS Acquired: 10/31/2018 19:28:14 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19631**
 Stddev .00107
 %RSD .54500

#1 **.19706**
 #2 **.19555**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2585.1	4129.1	124440.	7804.5
Stddev	.0	.6	549.	14.2
%RSD	.00077	.01345	.44135	.18211

#1	2585.1	4128.7	124050.	7794.5
#2	2585.1	4129.5	124830.	7814.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.261%	100.10%	95.253%	98.576%
Range				

Sample Name: 480-143899-C-1-C MSD Acquired: 10/31/2018 19:31:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04585	9.9119	.18441	.21034	.25737
Stddev	.00003	.0305	.00129	.00056	.00046
%RSD	.06901	.30806	.69711	.26746	.17885

#1	.04583	9.9335	.18532	.20994	.25705
#2	.04587	9.8903	.18350	.21074	.25770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20477	59.672	.18716	-.0069	.18655
Stddev	.00065	.077	.00020	.0280	.00074
%RSD	.31592	.12822	.10469	403.8	.39579

#1	.20432	59.726	.18730	-.0268	.18707
#2	.20523	59.618	.18702	.0129	.18603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19985	.19162	9.8937	11.587	.19625
Stddev	.00103	.00026	.0146	.053	.00134
%RSD	.51289	.13655	.14751	.46122	.68492

#1	.20058	.19144	9.9040	11.549	.19530
#2	.19913	.19181	9.8833	11.624	.19720

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-C MSD Acquired: 10/31/2018 19:31:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.638	.19710	.17806	30.414	.20365
Stddev	.033	.00016	.00049	.013	.00068
%RSD	.17835	.08225	.27323	.04219	.33425

#1	18.614	.19698	.17772	30.423	.20317
#2	18.661	.19721	.17840	30.405	.20413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18817	12.77	.18464	.18725	12.976
Stddev	.00173	.00	.00078	.00175	.001
%RSD	.92066	.0027	.42241	.93379	.00431

#1	.18695	12.77	.18519	.18849	12.975
#2	.18940	12.77	.18409	.18602	12.976

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19244	.30955	.19385	.18778	.20331
Stddev	.00046	.00017	.00027	.00003	.00052
%RSD	.23902	.05429	.14024	.01542	.25411

#1	.19276	.30967	.19366	.18780	.20295
#2	.19211	.30943	.19404	.18776	.20368

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-1-C MSD Acquired: 10/31/2018 19:31:54 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19645**
 Stddev .00021
 %RSD .10466

#1 **.19660**
 #2 **.19631**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2581.9	4133.4	124630.	7841.8
Stddev	6.4	12.2	391.	30.1
%RSD	.24831	.29403	.31398	.38412

#1	2586.5	4141.9	124910.	7820.5
#2	2577.4	4124.8	124360.	7863.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.148%	100.20%	95.401%	99.046%
Range				

Sample Name: 480-143899-C-2-A Acquired: 10/31/2018 19:35:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.00150	-.00020	.02808	.05328
Stddev	.00012	.00105	.00108	.00030	.00004
%RSD	38.507	69.830	532.50	1.0704	.08371

#1	-.00022	.00076	.00056	.02787	.05325
#2	-.00039	.00224	-.00097	.02830	.05331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	48.755	.00017	-.0088	-.00005
Stddev	.00014	.042	.00016	.0209	.00016
%RSD	490.35	.08697	94.015	236.2	347.87

#1	-.00012	48.725	.00006	-.0236	.00007
#2	.00007	48.785	.00028	.0059	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	-.00039	.01739	1.4468	.00169
Stddev	.00005	.00014	.00327	.0131	.00050
%RSD	14.103	36.066	18.804	.90216	29.587

#1	.00030	-.00048	.01508	1.4375	.00204
#2	.00037	-.00029	.01971	1.4560	.00133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-2-A Acquired: 10/31/2018 19:35:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.6385	.00065	-.00001	16.197	-.00015
Stddev	.0014	.00003	.00001	.072	.00031
%RSD	.01677	4.8562	104.92	.44576	203.85

#1	8.6395	.00063	-.00002	16.146	-.00037
#2	8.6375	.00067	-.00000	16.248	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	3.564	-.00169	-.00117	3.7685
Stddev	.00139	.019	.00088	.00126	.0151
%RSD	4513.3	.5244	51.931	108.03	.40021

#1	-.00095	3.578	-.00230	-.00206	3.7792
#2	.00101	3.551	-.00107	-.00028	3.7579

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.09376	.00070	.00190	-.00003
Stddev	.00009	.00044	.00018	.00046	.00017
%RSD	16.452	.46646	26.064	23.978	657.13

#1	-.00059	.09345	.00057	.00158	.00009
#2	-.00047	.09407	.00083	.00223	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-2-A Acquired: 10/31/2018 19:35:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00199
Stddev .00061
%RSD 30.766

#1 .00242
#2 .00156

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2654.4	4176.5	125630.	7802.6
Stddev	1.1	3.8	191.	39.7
%RSD	.04159	.09108	.15228	.50842

#1	2655.2	4179.2	125490.	7830.7
#2	2653.7	4173.8	125760.	7774.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.736%	101.24%	96.162%	98.552%
Range				

Sample Name: 480-143899-C-3-A Acquired: 10/31/2018 19:39:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	-.00973	.00248	.04983	.06290
Stddev	.00011	.00628	.00148	.00029	.00015
%RSD	18.458	64.464	59.719	.57413	.24500

#1	-.00051	-.01417	.00143	.05003	.06279
#2	-.00067	-.00530	.00353	.04963	.06301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	56.303	.00023	-.0067	-.00020
Stddev	.00009	.152	.00001	.0139	.00010
%RSD	68.314	.27017	4.3511	206.4	47.316

#1	-.00020	56.196	.00022	-.0165	-.00027
#2	-.00007	56.411	.00024	.0031	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	-.00112	.00603	2.6260	.00173
Stddev	.00038	.00042	.00067	.0117	.00076
%RSD	92.428	37.441	11.151	.44347	44.114

#1	.00014	-.00142	.00651	2.6178	.00119
#2	.00068	-.00082	.00556	2.6342	.00227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-3-A Acquired: 10/31/2018 19:39:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.4410	.00036	-.00013	29.500	.00015
Stddev	.0083	.00003	.00010	.018	.00004
%RSD	.08835	8.0719	71.594	.06027	28.580

#1	9.4351	.00038	-.00007	29.487	.00012
#2	9.4469	.00034	-.00020	29.512	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	4.210	-.00088	-.00439	3.8465
Stddev	.00055	.006	.00052	.00057	.0101
%RSD	303.55	.1410	58.450	12.929	.26209

#1	.00057	4.214	-.00125	-.00479	3.8394
#2	-.00021	4.206	-.00052	-.00399	3.8536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.11867	-.00037	.00128	-.00003
Stddev	.00023	.00001	.00011	.00083	.00035
%RSD	1980.1	.01163	29.355	64.888	1076.9

#1	-.00015	.11866	-.00029	.00070	.00022
#2	.00018	.11868	-.00045	.00187	-.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-3-A Acquired: 10/31/2018 19:39:21 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00157**
 Stddev .00073
 %RSD 46.419

#1 **.00106**
 #2 **.00209**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2616.6	4128.0	125360.	7806.8
Stddev	1.7	6.2	47.	2.4
%RSD	.06535	.14900	.03764	.03019

#1	2617.8	4132.3	125400.	7808.5
#2	2615.4	4123.6	125330.	7805.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.384%	100.07%	95.959%	98.605%
Range				

Sample Name: 480-143899-C-4-A Acquired: 10/31/2018 19:43:10 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.03200	-.00020	.07680	.09292
Stddev	.00010	.02745	.00034	.00030	.00005
%RSD	21.730	85.781	172.73	.39572	.05206

#1	-.00055	.05141	-.00044	.07658	.09295
#2	-.00040	.01259	.00004	.07701	.09289

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	89.597	.00033	.0124	-.00021
Stddev	.00003	.136	.00006	.0096	.00009
%RSD	36.583	.15124	16.683	77.22	41.757

#1	-.00011	89.693	.00037	.0056	-.00027
#2	-.00007	89.501	.00029	.0192	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00083	-.00065	.04415	4.6226	.00149
Stddev	.00021	.00019	.00060	.0330	.00050
%RSD	24.859	29.118	1.3647	.71418	33.768

#1	.00068	-.00052	.04457	4.5993	.00185
#2	.00098	-.00079	.04372	4.6460	.00114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-4-A Acquired: 10/31/2018 19:43:10 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.036	.00194	.00009	6.1242	.00011
Stddev	.021	.00000	.00013	.0047	.00011
%RSD	.17785	.02674	139.92	.07706	107.40

#1	12.051	.00194	.00019	6.1275	.00019
#2	12.021	.00194	.00000	6.1208	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00065	2.109	-.00183	-.00178	7.6001
Stddev	.00030	.001	.00008	.00128	.0046
%RSD	45.933	.0682	4.4863	72.135	.06121

#1	.00044	2.108	-.00177	-.00269	7.5968
#2	.00087	2.110	-.00188	-.00087	7.6034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	.24207	-.00009	.00165	-.00010
Stddev	.00050	.00091	.00004	.00154	.00039
%RSD	50.132	.37638	41.655	93.426	392.68

#1	-.00134	.24272	-.00011	.00274	-.00038
#2	-.00064	.24143	-.00006	.00056	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-4-A Acquired: 10/31/2018 19:43:10 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00319**
 Stddev .00085
 %RSD 26.671

#1 **.00379**
 #2 **.00258**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2618.3	4126.0	125090.	7836.5
Stddev	2.0	1.0	188.	10.3
%RSD	.07478	.02374	.14998	.13089

#1	2619.7	4125.4	125220.	7829.3
#2	2616.9	4126.7	124960.	7843.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.445%	100.02%	95.751%	98.980%
Range				

Sample Name: 480-143899-C-5-A Acquired: 10/31/2018 19:46:58 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.02293	-.00055	.02914	.05489
Stddev	.00036	.00131	.00176	.00008	.00028
%RSD	160.79	5.7136	321.59	.27672	.51727

#1	-.00048	.02200	-.00179	.02908	.05469
#2	.00003	.02385	.00070	.02920	.05509

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	50.277	.00020	-.0093	-.00009
Stddev	.00007	.124	.00003	.0133	.00011
%RSD	56.851	.24610	14.534	143.6	131.98

#1	-.00007	50.365	.00018	-.0187	-.00017
#2	-.00017	50.190	.00023	.0001	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	-.00031	.02185	1.4772	.00173
Stddev	.00025	.00050	.00263	.0442	.00086
%RSD	62.767	158.03	12.024	2.9922	49.859

#1	.00059	.00004	.02370	1.5084	.00112
#2	.00023	-.00066	.01999	1.4459	.00234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-5-A Acquired: 10/31/2018 19:46:58 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.9110	.00071	-.00038	16.520	.00011
Stddev	.0189	.00003	.00016	.027	.00040
%RSD	.21255	4.5779	41.878	.16578	360.43

#1	8.9244	.00069	-.00049	16.501	-.00017
#2	8.8976	.00074	-.00026	16.540	.00039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	3.661	-.00243	-.00292	3.9088
Stddev	.00014	.017	.00132	.00199	.0318
%RSD	130.29	.4735	54.448	68.070	.81223

#1	.00021	3.649	-.00149	-.00433	3.8863
#2	.00001	3.674	-.00336	-.00151	3.9312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	.09541	-.00035	.00121	-.00005
Stddev	.00034	.00041	.00013	.00070	.00034
%RSD	53.102	.43132	37.349	57.795	615.67

#1	-.00040	.09512	-.00026	.00071	-.00029
#2	-.00088	.09570	-.00044	.00170	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-C-5-A Acquired: 10/31/2018 19:46:58 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00350**
 Stddev .00035
 %RSD 9.9396

#1 **.00326**
 #2 **.00375**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.1	4168.9	125490.	7806.2
Stddev	.4	10.2	251.	12.5
%RSD	.01675	.24576	.20004	.16015

#1	2644.8	4176.1	125670.	7797.4
#2	2645.5	4161.6	125310.	7815.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.405%	101.06%	96.056%	98.598%
Range				

Sample Name: LCSD 480-441218/24-A Acquired: 10/31/2018 19:50:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04652	9.7565	.17935	.18096	.19802
Stddev	.00038	.0261	.00437	.00080	.00062
%RSD	.81941	.26726	2.4379	.44154	.31280

#1	.04679	9.7749	.17626	.18040	.19846
#2	.04625	9.7380	.18244	.18152	.19759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20148	9.4776	.18430	-.0148	.18495
Stddev	.00043	.0161	.00021	.0208	.00025
%RSD	.21495	.16977	.11486	140.5	.13653

#1	.20179	9.4890	.18415	-.0295	.18513
#2	.20117	9.4663	.18445	-.0001	.18477

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20039	.18955	9.9171	9.3215	.18352
Stddev	.00056	.00018	.0221	.0613	.00019
%RSD	.28095	.09529	.22285	.65804	.10413

#1	.20079	.18968	9.9014	9.2781	.18365
#2	.20000	.18943	9.9327	9.3649	.18338

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCSD 480-441218/24-A Acquired: 10/31/2018 19:50:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.6141	.19853	.17581	9.6447	.20155
Stddev	.0266	.00016	.00012	.0166	.00093
%RSD	.27653	.08068	.06899	.17249	.46390

#1	9.6329	.19864	.17573	9.6565	.20221
#2	9.5953	.19841	.17590	9.6330	.20089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18565	8.869	.17899	.18579	9.2264
Stddev	.00015	.040	.00015	.00077	.0026
%RSD	.08018	.4560	.08152	.41472	.02849

#1	.18576	8.840	.17910	.18524	9.2283
#2	.18554	8.897	.17889	.18633	9.2246

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18640	.20580	.19159	.18540	.19960
Stddev	.00118	.00049	.00029	.00002	.00038
%RSD	.63552	.23797	.15059	.01106	.18877

#1	.18556	.20614	.19138	.18541	.19986
#2	.18723	.20545	.19179	.18538	.19933

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCSD 480-441218/24-A Acquired: 10/31/2018 19:50:47 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19866**
 Stddev .00020
 %RSD .09864

#1 .19852
 #2 .19880

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2692.9	4229.8	126940.	7863.4
Stddev	.0	13.2	594.	7.1
%RSD	.00167	.31132	.46754	.08970

#1	2692.9	4239.1	126520.	7858.4
#2	2693.0	4220.4	127360.	7868.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.110%	102.54%	97.167%	99.320%
Range				

Sample Name: blank Acquired: 10/31/2018 19:54:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	-.01562	.00053	-.00049	-.00002
Stddev	.00004	.00806	.00141	.00022	.00000
%RSD	24.191	51.590	267.84	44.837	4.1561

#1	-.00014	-.02131	.00152	-.00033	-.00002
#2	-.00020	-.00992	-.00047	-.00064	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00722	.00018	.0168	.00002
Stddev	.00005	.00060	.00012	.0063	.00022
%RSD	75.397	8.2632	68.271	37.43	1096.7

#1	-.00010	.00679	.00009	.0123	.00017
#2	-.00003	.00764	.00027	.0212	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.00161	.00282	-.04673	-.00027
Stddev	.00004	.00003	.00021	.05156	.00073
%RSD	25.369	1.5676	7.5637	110.34	267.92

#1	-.00013	-.00162	.00297	-.01027	-.00079
#2	-.00019	-.00159	.00267	-.08319	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 19:54:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00343	.00005	.00009	.02869	.00008
Stddev	.00011	.00001	.00004	.00420	.00013
%RSD	3.1103	30.775	47.567	14.643	170.24

#1	-.00335	.00006	.00006	.02572	-.00002
#2	-.00350	.00004	.00012	.03166	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.0214	-.00228	-.00175	-.05971
Stddev	.00010	.0013	.00092	.00247	.01031
%RSD	90.860	5.958	40.483	140.98	17.259

#1	.00017	.0223	-.00293	-.00001	-.06700
#2	.00004	.0205	-.00163	-.00350	-.05242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	-.00017	-.00003	.00144	-.00046
Stddev	.00018	.00002	.00014	.00006	.00008
%RSD	36.853	9.4884	442.61	3.8877	17.122

#1	-.00063	-.00016	.00007	.00148	-.00041
#2	-.00037	-.00018	-.00013	.00140	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 10/31/2018 19:54:27 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **-.00010**
 Stddev .00030
 %RSD 312.01

#1 .00011
 #2 -.00030

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2780.2	4286.0	128910.	7791.0
Stddev	2.8	2.5	173.	47.1
%RSD	.10200	.05844	.13437	.60495

#1	2782.2	4287.8	129030.	7757.7
#2	2778.2	4284.3	128790.	7824.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.223%	103.90%	98.674%	98.405%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 19:58:20 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50393	24.878	.45617	F .44561	.50876	.50055	24.515
Stddev	.00018	.033	.00298	.00122	.00115	.00136	.020
%RSD	.03533	.13146	.65430	.27485	.22626	.27214	.08307

#1	.50406	24.855	.45828	.44474	.50958	.50151	24.530
#2	.50381	24.901	.45406	.44648	.50795	.49958	24.501

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46703	-.0206	.48646	.51584	.50315	25.294	24.930
Stddev	.00082	.0120	.00006	.00039	.00029	.009	.080
%RSD	.17565	58.40	.01221	.07598	.05809	.03479	.32170

#1	.46645	-.0291	.48642	.51612	.50336	25.288	24.987
#2	.46761	-.0121	.48651	.51556	.50295	25.300	24.874

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48808	24.313	.52266	.46488	25.681	.50638	.47988
Stddev	.00023	.038	.00045	.00026	.005	.00057	.00029
%RSD	.04802	.15762	.08621	.05588	.01822	.11265	.06041

#1	.48791	24.340	.52298	.46507	25.684	.50678	.48009
#2	.48824	24.286	.52235	.46470	25.678	.50597	.47968

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 19:58:20 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.15	.46732	.47664	24.124	.49612	.53683	.50132
Stddev	.01	.00058	.00050	.057	.00010	.00061	.00080
%RSD	.0239	.12405	.10493	.23789	.01986	.11379	.16032

#1	23.14	.46691	.47699	24.084	.49619	.53640	.50189
#2	23.15	.46773	.47629	24.165	.49605	.53726	.50075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47288	.52346	.48579
Stddev	.00061	.00253	.00252
%RSD	.12928	.48426	.51887

#1	.47245	.52525	.48757
#2	.47331	.52167	.48400

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2601.9	4140.0	124730.	7743.5
Stddev	1.8	7.4	23.	34.2
%RSD	.07069	.17866	.01873	.44126

#1	2603.2	4145.3	124740.	7767.6
#2	2600.6	4134.8	124710.	7719.3

Sample Name: CCB-4957862 Acquired: 10/31/2018 20:02:03 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.00542	.00311	-.00018	-.00003	-.00012	.01319	-.00006
Stddev	.00008	.00247	.00086	.00016	.00002	.00006	.00163	.00007
%RSD	96.524	45.646	27.650	88.334	61.310	47.200	12.328	117.88

#1	-.00015	-.00367	.00250	-.00007	-.00004	-.00008	.01434	-.00011
#2	-.00003	-.00717	.00372	-.00030	-.00002	-.00017	.01204	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030	.00004	.00001	-.00118	.00159	-.02517	-.00011	-.00305
Stddev	.0126	.00001	.00015	.00041	.00189	.02565	.00013	.00063
%RSD	419.6	24.283	1878.6	34.335	118.45	101.91	125.12	20.718

#1	.0120	.00004	-.00010	-.00147	.00293	-.00703	-.00020	-.00350
#2	-.0059	.00003	.00011	-.00090	.00026	-.04330	-.00001	-.00260

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00036	.02288	.00011	-.00055	.0207	-.00125	-.00176
Stddev	.00000	.00001	.00128	.00006	.00176	.0016	.00007	.00292
%RSD	.47838	1.4889	5.6110	52.952	318.33	7.531	5.1923	165.89

#1	.00029	.00036	.02197	.00016	.00069	.0196	-.00130	.00030
#2	.00029	.00037	.02378	.00007	-.00179	.0218	-.00121	-.00383

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 20:02:03 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03192	-.00006	-.00009	-.00007	.00097	-.00051	.00162
Stddev	.00788	.00009	.00003	.00020	.00071	.00030	.00010
%RSD	24.698	156.47	37.344	288.78	72.819	58.796	6.4220

#1	-.02634	.00001	-.00007	-.00021	.00147	-.00030	.00154
#2	-.03749	-.00013	-.00012	.00007	.00047	-.00072	.00169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2769.8	4287.1	129310.	7808.4
Stddev	1.8	6.1	134.	1.8
%RSD	.06481	.14310	.10346	.02364

#1	2771.1	4291.5	129210.	7809.7
#2	2768.6	4282.8	129400.	7807.1

Sample Name: CCVL-4970377 Acquired: 10/31/2018 20:05:56 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00573	.18275	.01424	.01790	.00208	.00195	.50409	.00200
Stddev	.00028	.00550	.00123	.00004	.00002	.00007	.00438	.00003
%RSD	4.9471	3.0113	8.6217	.21514	1.0242	3.6018	.86835	1.5735
#1	.00553	.17886	.01511	.01792	.00206	.00190	.50719	.00198
#2	.00593	.18664	.01337	.01787	.00209	.00200	.50100	.00202

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0273	.00395	.00427	.00836	.05077	.40926	.02772	.19811
Stddev	.0079	.00008	.00031	.00020	.00147	.00760	.00062	.00036
%RSD	28.95	2.0441	7.2234	2.3726	2.9036	1.8558	2.2532	.17998
#1	-.0329	.00401	.00449	.00850	.05181	.41463	.02816	.19786
#2	-.0217	.00390	.00406	.00822	.04973	.40389	.02727	.19837

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00317	.00881	.99340	.01013	.01085	.1949	.01743	.02238
Stddev	.00000	.00013	.00492	.00012	.00005	.0026	.00095	.00097
%RSD	.04794	1.5088	.49514	1.1881	.49102	1.322	5.4548	4.3506
#1	.00317	.00871	.99688	.01005	.01089	.1968	.01810	.02307
#2	.00317	.00890	.98992	.01022	.01082	.1931	.01676	.02169

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 20:05:56 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42562	.00893	.00519	.00473	.01877	.00488	.01015
Stddev	.00902	.00005	.00012	.00015	.00046	.00008	.00060
%RSD	2.1183	.58796	2.3455	3.2031	2.4667	1.7157	5.9184

#1	.41924	.00890	.00527	.00462	.01910	.00482	.00973
#2	.43199	.00897	.00510	.00484	.01844	.00494	.01058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2765.6	4300.6	129480.	7792.2
Stddev	1.4	2.7	64.	28.8
%RSD	.05032	.06347	.04950	.36954

#1	2764.6	4302.6	129440.	7812.5
#2	2766.6	4298.7	129530.	7771.8

Sample Name: MB 480-440848/1-A Acquired: 10/31/2018 20:09:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	-.01606	.00076	-.00005	-.00001
Stddev	.00047	.00779	.00178	.00038	.00000
%RSD	224.99	48.523	233.44	749.13	21.544

#1	.00012	-.02157	.00202	-.00032	-.00001
#2	-.00054	-.01055	-.00050	.00022	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.02283	-.00005	-.0063	-.00006
Stddev	.00003	.00038	.00005	.0026	.00001
%RSD	24.866	1.6455	110.80	41.55	18.989

#1	-.00014	.02309	-.00001	-.0081	-.00005
#2	-.00010	.02256	-.00009	-.0044	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00128	.00173	-.02816	-.00017
Stddev	.00009	.00012	.00355	.02586	.00010
%RSD	652.70	9.5293	204.82	91.823	59.078

#1	-.00005	-.00119	-.00078	-.00988	-.00024
#2	.00008	-.00137	.00424	-.04645	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440848/1-A Acquired: 10/31/2018 20:09:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00341	-.00025	-.00021	.02153	.00017
Stddev	.00162	.00004	.00000	.00324	.00001
%RSD	47.463	15.261	2.2071	15.047	6.9136

#1	-.00455	-.00022	-.00021	.01924	.00017
#2	-.00226	-.00027	-.00021	.02382	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.0148	-.00246	-.00166	-.07053
Stddev	.00017	.0006	.00003	.00284	.00156
%RSD	39.785	3.863	1.2633	171.35	2.2143

#1	.00055	.0144	-.00249	-.00366	-.07164
#2	.00031	.0152	-.00244	.00035	-.06943

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	-.00013	-.00011	.00019	-.00018
Stddev	.00028	.00001	.00013	.00053	.00019
%RSD	43.442	9.2994	113.12	275.16	107.87

#1	-.00084	-.00012	-.00020	-.00018	-.00031
#2	-.00044	-.00014	-.00002	.00057	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440848/1-A Acquired: 10/31/2018 20:09:47 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00148**
 Stddev .00029
 %RSD 19.692

#1 **.00127**
 #2 **.00169**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2779.1	4323.2	130560.	7954.8
Stddev	3.6	4.9	268.	5.2
%RSD	.12976	.11389	.20496	.06595

#1	2781.7	4326.7	130750.	7951.1
#2	2776.6	4319.7	130370.	7958.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.186%	104.80%	99.934%	100.47%
Range				

Sample Name: LCS 480-440848/2-A Acquired: 10/31/2018 20:13:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04836	9.7544	.18495	.18122	.19850
Stddev	.00056	.0339	.00265	.00019	.00068
%RSD	1.1519	.34787	1.4319	.10587	.34260

#1	.04796	9.7784	.18682	.18109	.19898
#2	.04875	9.7304	.18307	.18136	.19802

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20404	9.5881	.18581	-.0154	.18774
Stddev	.00044	.0333	.00072	.0011	.00024
%RSD	.21479	.34713	.38766	7.009	.12712

#1	.20373	9.5646	.18632	-.0161	.18790
#2	.20435	9.6117	.18530	-.0146	.18757

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20087	.19181	9.9931	9.3916	.18487
Stddev	.00044	.00036	.0223	.0081	.00136
%RSD	.21870	.18578	.22297	.08634	.73471

#1	.20056	.19207	9.9773	9.3973	.18391
#2	.20118	.19156	10.009	9.3859	.18583

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440848/2-A Acquired: 10/31/2018 20:13:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.6910	.20004	.17684	9.7127	.20553
Stddev	.0253	.00014	.00014	.0110	.00019
%RSD	.26122	.07114	.07669	.11271	.09357

#1	9.6731	.19994	.17694	9.7205	.20539
#2	9.7089	.20014	.17675	9.7050	.20566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18831	8.922	.17979	.18706	9.3077
Stddev	.00006	.030	.00036	.00045	.0285
%RSD	.03333	.3396	.19868	.24118	.30593

#1	.18827	8.943	.17954	.18737	9.2876
#2	.18836	8.901	.18004	.18674	9.3278

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19062	.20679	.19383	.18677	.20218
Stddev	.00020	.00053	.00063	.00074	.00102
%RSD	.10611	.25658	.32512	.39852	.50639

#1	.19048	.20717	.19339	.18624	.20290
#2	.19076	.20642	.19428	.18730	.20146

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440848/2-A Acquired: 10/31/2018 20:13:38 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg F .25157
 Stddev .00000
 %RSD .00061

#1 .25157
 #2 .25157

Check ? Chk Fail
 High Limit .23000
 Low Limit .17000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2688.5	4254.6	127630.	7885.5
Stddev	1.3	10.5	278.	21.1
%RSD	.04966	.24661	.21814	.26739

#1	2687.6	4247.2	127430.	7900.4
#2	2689.5	4262.1	127820.	7870.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.953%	103.14%	97.693%	99.598%
Range				

Sample Name: 480-143764-D-1-A Acquired: 10/31/2018 20:17:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	.09311	.00068	.04133	.10276
Stddev	.00012	.01458	.00027	.00002	.00021
%RSD	14.897	15.661	38.854	.05232	.20362

#1	-.00070	.10343	.00050	.04135	.10261
#2	-.00086	.08280	.00087	.04132	.10291

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	39.688	.00020	.0135	-.00027
Stddev	.00001	.046	.00010	.0156	.00032
%RSD	18.931	.11682	49.896	115.4	117.60

#1	.00005	39.655	.00013	.0025	-.00005
#2	.00006	39.721	.00027	.0246	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	-.00214	72.508	6.7129	.02136
Stddev	.00036	.00066	.029	.0256	.00116
%RSD	123.50	31.073	.03954	.38078	5.4523

#1	-.00004	-.00167	72.528	6.6948	.02219
#2	-.00054	-.00261	72.487	6.7310	.02054

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-A Acquired: 10/31/2018 20:17:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.913	.55445	-.00070	127.17	.00081
Stddev	.009	.00059	.00003	.28	.00007
%RSD	.07519	.10564	4.5496	.21635	8.5158

#1	11.907	.55404	-.00067	127.37	.00076
#2	11.919	.55487	-.00072	126.98	.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00079	34.83	-.00052	-.00496	7.5615
Stddev	.00022	.05	.00128	.00043	.0173
%RSD	28.054	.1552	245.26	8.6242	.22868

#1	.00095	34.79	-.00143	-.00466	7.5737
#2	.00064	34.87	.00038	-.00526	7.5493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.20043	.00168	.00091	.00055
Stddev	.00069	.00037	.00002	.00108	.00003
%RSD	147.09	.18406	.91615	118.91	5.7065

#1	.00002	.20069	.00169	.00167	.00052
#2	-.00095	.20017	.00166	.00014	.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-A Acquired: 10/31/2018 20:17:18 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00712**
 Stddev .00009
 %RSD 1.2053

#1 **.00706**
 #2 **.00718**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2531.6	4153.0	122600.	7732.9
Stddev	1.5	3.0	501.	9.7
%RSD	.05931	.07118	.40897	.12561

#1	2532.7	4155.1	122960.	7739.8
#2	2530.5	4150.9	122250.	7726.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.352%	100.68%	93.848%	97.672%
Range				

Sample Name: 480-143764-D-1-Asd@5 Acquired: 10/31/2018 20:21:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.01406	-.00020	.00775	.02083
Stddev	.00020	.01692	.00361	.00023	.00006
%RSD	56.920	120.35	1840.7	2.9973	.30800

#1	-.00021	.00209	.00236	.00791	.02087
#2	-.00048	.02602	-.00275	.00758	.02078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	8.1214	.00008	.0030	.00001
Stddev	.00008	.0019	.00002	.0032	.00028
%RSD	70.320	.02306	26.898	106.8	2143.9

#1	-.00017	8.1227	.00006	.0052	-.00019
#2	-.00006	8.1201	.00009	.0007	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00177	14.976	1.2582	.00427
Stddev	.00007	.00014	.021	.0088	.00070
%RSD	117.03	8.0760	.13929	.69726	16.346

#1	.00001	-.00167	14.991	1.2644	.00477
#2	.00011	-.00187	14.961	1.2520	.00378

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-Asd@5 Acquired: 10/31/2018 20:21:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.4292	.11137	-.00041	25.573	-.00001
Stddev	.0015	.00029	.00002	.003	.00001
%RSD	.06043	.25752	5.2294	.01118	61.933

#1	2.4281	.11157	-.00039	25.571	-.00001
#2	2.4302	.11117	-.00042	25.575	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00124	6.813	-.00176	-.00067	1.4865
Stddev	.00081	.007	.00057	.00080	.0282
%RSD	65.079	.0968	32.455	118.56	1.8985

#1	.00181	6.808	-.00136	-.00123	1.4665
#2	.00067	6.817	-.00216	-.00011	1.5064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.04086	.00006	.00097	-.00004
Stddev	.00060	.00009	.00026	.00106	.00002
%RSD	265.14	.21942	446.61	109.26	60.510

#1	-.00065	.04080	.00024	.00022	-.00002
#2	.00020	.04093	-.00012	.00171	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-Asd@5 Acquired: 10/31/2018 20:21:04 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00088**
 Stddev .00042
 %RSD 47.573

#1 **.00058**
 #2 **.00117**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2712.7	4287.3	127430.	7781.3
Stddev	.3	5.1	261.	12.7
%RSD	.01249	.11921	.20460	.16260

#1	2712.4	4290.9	127240.	7772.4
#2	2712.9	4283.7	127610.	7790.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.815%	103.93%	97.538%	98.283%
Range				

Sample Name: 480-143764-D-1-Apds Acquired: 10/31/2018 20:24:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04987	10.125	.19334	.23069	.29977
Stddev	.00038	.019	.00052	.00036	.00043
%RSD	.77002	.19166	.26946	.15750	.14371

#1	.05014	10.139	.19297	.23095	.30007
#2	.04959	10.111	.19371	.23044	.29946

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21061	47.899	.19504	.0100	.19741
Stddev	.00043	.038	.00029	.0112	.00012
%RSD	.20590	.08004	.15107	112.6	.06265

#1	.21092	47.926	.19524	.0020	.19732
#2	.21030	47.872	.19483	.0179	.19749

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20495	.19867	79.051	17.073	.22517
Stddev	.00024	.00067	.210	.164	.00070
%RSD	.11732	.33619	.26574	.96198	.31161

#1	.20512	.19820	78.903	17.189	.22567
#2	.20478	.19915	79.200	16.957	.22468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-Apds Acquired: 10/31/2018 20:24:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	21.228	.71936	.18302	132.38	.21481
Stddev	.004	.00143	.00027	.15	.00010
%RSD	.02044	.19855	.14930	.11410	.04739

#1	21.225	.72037	.18283	132.48	.21488
#2	21.232	.71835	.18322	132.27	.21473

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19673	43.57	.19138	.19634	17.105
Stddev	.00110	.12	.00037	.00196	.012
%RSD	.56022	.2771	.19137	1.0005	.06827

#1	.19595	43.49	.19164	.19773	17.113
#2	.19751	43.66	.19113	.19495	17.096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20204	.40144	.20325	.19308	.20907
Stddev	.00004	.00097	.00023	.00111	.00055
%RSD	.02080	.24084	.11416	.57273	.26173

#1	.20207	.40212	.20308	.19386	.20868
#2	.20201	.40075	.20341	.19230	.20945

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-Apds Acquired: 10/31/2018 20:24:51 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20543**
 Stddev .00052
 %RSD .25312

#1 **.20506**
 #2 **.20580**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2502.3	4100.3	123350.	7787.7
Stddev	2.1	6.4	179.	9.5
%RSD	.08521	.15591	.14528	.12210

#1	2503.8	4104.8	123230.	7781.0
#2	2500.8	4095.8	123480.	7794.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.306%	99.399%	94.422%	98.364%
Range				

Sample Name: 480-143764-D-1-B MS Acquired: 10/31/2018 20:28:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04872	9.9553	.18890	.22741	.29871
Stddev	.00033	.0112	.00030	.00021	.00106
%RSD	.67621	.11215	.15822	.09075	.35410

#1	.04849	9.9474	.18869	.22756	.29796
#2	.04896	9.9632	.18911	.22727	.29946

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20629	48.816	.18984	.0204	.19257
Stddev	.00005	.104	.00001	.0131	.00042
%RSD	.02408	.21329	.00554	64.12	.21916

#1	.20625	48.890	.18985	.0112	.19287
#2	.20632	48.743	.18983	.0297	.19227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19918	.19360	80.629	17.147	.22366
Stddev	.00085	.00081	.082	.029	.00037
%RSD	.42447	.41981	.10126	.16853	.16427

#1	.19858	.19302	80.571	17.127	.22340
#2	.19978	.19417	80.687	17.168	.22392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-B MS Acquired: 10/31/2018 20:28:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	21.253	.72872	.17839	135.49	.21015
Stddev	.036	.00099	.00059	.35	.00028
%RSD	.17026	.13617	.33324	.25640	.13500

#1	21.227	.72802	.17881	135.24	.21035
#2	21.279	.72942	.17797	135.73	.20995

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19229	44.42	.18538	.19026	16.836
Stddev	.00016	.06	.00017	.00139	.005
%RSD	.08308	.1372	.09243	.72811	.03193

#1	.19218	44.46	.18550	.18928	16.840
#2	.19241	44.38	.18526	.19123	16.832

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19919	.40336	.19878	.18706	.20377
Stddev	.00068	.00077	.00015	.00009	.00228
%RSD	.34009	.19100	.07324	.04921	1.1194

#1	.19871	.40281	.19868	.18713	.20216
#2	.19967	.40390	.19889	.18700	.20538

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-B MS Acquired: 10/31/2018 20:28:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19908**
 Stddev .00155
 %RSD .77956

#1 .19799
 #2 .20018

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2495.1	4096.8	123430.	7785.1
Stddev	1.7	5.2	561.	11.4
%RSD	.06874	.12802	.45433	.14645

#1	2493.8	4093.1	123820.	7793.2
#2	2496.3	4100.5	123030.	7777.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.048%	99.314%	94.477%	98.331%
Range				

Sample Name: 480-143764-D-1-C MSD Acquired: 10/31/2018 20:32:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04805	9.8486	.18422	.22275	.29207
Stddev	.00037	.0585	.00005	.00121	.00064
%RSD	.76521	.59443	.02657	.54242	.22070

#1	.04779	9.8072	.18419	.22360	.29161
#2	.04831	9.8900	.18426	.22189	.29252

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20270	46.836	.18641	-.0031	.18912
Stddev	.00063	.101	.00045	.0516	.00035
%RSD	.30856	.21524	.24290	1649.	.18734

#1	.20226	46.765	.18673	.0334	.18887
#2	.20314	46.907	.18609	-.0396	.18937

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19628	.19051	77.704	16.689	.21974
Stddev	.00048	.00023	.067	.047	.00153
%RSD	.24463	.11850	.08682	.27885	.69792

#1	.19594	.19035	77.657	16.722	.22082
#2	.19662	.19067	77.752	16.656	.21865

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-C MSD Acquired: 10/31/2018 20:32:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.607	.70225	.17507	129.53	.20667
Stddev	.075	.00130	.00078	.47	.00042
%RSD	.36637	.18504	.44674	.36076	.20387

#1	20.554	.70133	.17562	129.20	.20637
#2	20.661	.70317	.17452	129.86	.20697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19016	42.54	.18224	.18501	16.548
Stddev	.00218	.08	.00015	.00460	.048
%RSD	1.1443	.1980	.08450	2.4877	.28904

#1	.18862	42.60	.18213	.18827	16.514
#2	.19169	42.49	.18235	.18176	16.582

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19618	.39191	.19526	.18434	.20289
Stddev	.00194	.00158	.00027	.00143	.00061
%RSD	.99055	.40382	.13893	.77656	.29890

#1	.19755	.39079	.19507	.18332	.20246
#2	.19480	.39303	.19545	.18535	.20331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-1-C MSD Acquired: 10/31/2018 20:32:08 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19956**
 Stddev .00195
 %RSD .97579

#1 **.20094**
 #2 **.19818**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2507.4	4114.7	123310.	7778.3
Stddev	.2	8.9	83.	6.8
%RSD	.00965	.21519	.06722	.08757

#1	2507.6	4108.4	123370.	7783.1
#2	2507.2	4121.0	123250.	7773.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.489%	99.747%	94.387%	98.245%
Range				

Sample Name: 480-143764-D-2-A Acquired: 10/31/2018 20:35:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	.12673	.00094	.11153	.06208
Stddev	.00031	.00443	.00488	.00012	.00001
%RSD	68.571	3.4940	519.13	.10901	.02053

#1	-.00024	.12360	-.00251	.11144	.06209
#2	-.00068	.12986	.00439	.11162	.06207

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	70.436	.00012	.0232	-.00038
Stddev	.00002	.084	.00030	.0093	.00009
%RSD	15.442	.11857	262.17	39.90	24.576

#1	.00013	70.495	-.00010	.0297	-.00044
#2	.00016	70.377	.00033	.0167	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	-.00260	126.05	9.7689	.03501
Stddev	.00010	.00007	.03	.0062	.00051
%RSD	9.4974	2.5797	.02558	.06311	1.4450

#1	-.00113	-.00264	126.07	9.7732	.03465
#2	-.00099	-.00255	126.02	9.7645	.03537

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-2-A Acquired: 10/31/2018 20:35:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.296	.93197	-.00087	262.48	.00064
Stddev	.050	.00367	.00011	.11	.00027
%RSD	.27356	.39417	12.755	.04358	42.752

#1	18.261	.92937	-.00095	262.39	.00044
#2	18.332	.93457	-.00079	262.56	.00083

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00250	51.29	.00089	-.00397	9.0763
Stddev	.00022	.10	.00007	.00020	.0097
%RSD	8.8124	.2021	8.4165	5.1650	.10728

#1	.00234	51.37	.00094	-.00411	9.0832
#2	.00265	51.22	.00083	-.00382	9.0694

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.34365	.00218	-.00023	.00060
Stddev	.00089	.00057	.00020	.00070	.00018
%RSD	568.74	.16617	8.9827	302.55	29.567

#1	.00048	.34324	.00204	-.00073	.00073
#2	-.00079	.34405	.00232	.00026	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-2-A Acquired: 10/31/2018 20:35:47 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00262**
 Stddev .00025
 %RSD 9.6570

#1 **.00244**
 #2 **.00280**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2417.9	4026.6	120560.	7708.5
Stddev	3.1	.2	329.	12.0
%RSD	.12848	.00389	.27307	.15596

#1	2420.1	4026.5	120790.	7700.0
#2	2415.7	4026.8	120330.	7717.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.296%	97.613%	92.283%	97.363%
Range				

Sample Name: 480-143764-D-3-A Acquired: 10/31/2018 20:39:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00105	.05611	-.00133	.10085	.11679
Stddev	.00021	.02180	.00371	.00049	.00027
%RSD	19.936	38.854	278.60	.48343	.23041

#1	-.00090	.04069	.00129	.10119	.11698
#2	-.00120	.07152	-.00396	.10050	.11660

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	59.392	.00008	.0578	-.00061
Stddev	.00006	.098	.00010	.0193	.00011
%RSD	151.03	.16441	120.05	33.38	18.182

#1	.00008	59.461	.00015	.0714	-.00069
#2	-.00000	59.323	.00001	.0441	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00118	-.00254	142.14	7.6779	.02788
Stddev	.00033	.00002	.34	.0249	.00229
%RSD	28.203	.94029	.23945	.32448	8.2075

#1	-.00142	-.00256	142.38	7.6955	.02949
#2	-.00095	-.00253	141.90	7.6602	.02626

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-3-A Acquired: 10/31/2018 20:39:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.204	1.0368	-.00139	230.07	.00126
Stddev	.016	.0007	.00036	.81	.00000
%RSD	.11098	.06348	26.290	.35015	.20682

#1	14.215	1.0372	-.00113	230.64	.00126
#2	14.193	1.0363	-.00165	229.50	.00126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00067	48.55	.00119	-.00483	7.6876
Stddev	.00156	.12	.00048	.00005	.0366
%RSD	232.25	.2489	40.362	1.0550	.47666

#1	-.00043	48.63	.00153	-.00486	7.7135
#2	.00178	48.46	.00085	-.00479	7.6617

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.26486	.00071	-.00112	.00121
Stddev	.00039	.00110	.00008	.00030	.00044
%RSD	45.909	.41491	11.681	26.314	36.352

#1	.00112	.26564	.00065	-.00133	.00090
#2	.00057	.26408	.00076	-.00091	.00152

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-3-A Acquired: 10/31/2018 20:39:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00232**
Stddev .00001
%RSD .34251

#1 **.00232**
#2 **.00231**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2441.1	4061.7	120750.	7673.8
Stddev	.3	5.4	191.	51.9
%RSD	.01249	.13342	.15796	.67624

#1	2441.3	4057.9	120610.	7637.1
#2	2440.9	4065.5	120880.	7710.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.122%	98.463%	92.426%	96.925%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 20:43:33 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50557	24.808	.45136	F .44054	.50497	.50345	24.762
Stddev	.00078	.050	.00142	.00084	.00010	.00120	.037
%RSD	.15412	.20219	.31564	.19082	.01945	.23862	.15049

#1	.50612	24.844	.45035	.44114	.50504	.50430	24.788
#2	.50502	24.773	.45237	.43995	.50490	.50260	24.736

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46260	-.0254	.48743	.51946	.50221	25.491	25.153
Stddev	.00115	.0221	.00031	.00082	.00045	.033	.028
%RSD	.24930	86.94	.06379	.15815	.09053	.12957	.10938

#1	.46341	-.0410	.48765	.52004	.50189	25.515	25.173
#2	.46178	-.0098	.48721	.51888	.50254	25.468	25.134

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48672	24.480	.52757	.45779	25.774	.51038	.47889
Stddev	.00033	.039	.00039	.00126	.136	.00022	.00035
%RSD	.06813	.15922	.07306	.27551	.52585	.04300	.07242

#1	.48695	24.508	.52784	.45868	25.870	.51053	.47913
#2	.48648	24.453	.52729	.45690	25.678	.51022	.47864

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 20:43:33 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.72	.46084	.47020	24.403	.49747	.53802	.50342
Stddev	.04	.00075	.00029	.056	.00237	.00168	.00015
%RSD	.1606	.16355	.06262	.22879	.47654	.31251	.02890

#1	22.75	.46030	.46999	24.442	.49915	.53921	.50353
#2	22.70	.46137	.47040	24.363	.49579	.53683	.50332

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47132	.52417	.49053
Stddev	.00156	.00080	.00256
%RSD	.33187	.15205	.52106

#1	.47242	.52473	.49233
#2	.47021	.52361	.48872

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2607.8	4198.4	124870.	7657.3
Stddev	1.0	3.0	69.	32.1
%RSD	.03759	.07108	.05546	.41888

#1	2608.4	4196.3	124820.	7634.6
#2	2607.1	4200.5	124920.	7679.9

Sample Name: CCB-4957862 Acquired: 10/31/2018 20:47:16 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	-.02025	.00191	-.00016	-.00001	-.00013	.01529	-.00003
Stddev	.00020	.01861	.00197	.00001	.00001	.00006	.00450	.00001
%RSD	33.828	91.929	102.80	5.4969	125.04	41.898	29.398	48.003

#1	-.00044	-.03341	.00052	-.00016	-.00001	-.00009	.01847	-.00002
#2	-.00072	-.00709	.00331	-.00017	-.00000	-.00017	.01211	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.00006	.00042	-.00119	.00144	.00968	.00146	-.00266
Stddev	.0079	.00003	.00026	.00027	.00145	.01298	.00033	.00136
%RSD	6751.	41.881	62.210	22.447	100.72	134.09	22.549	51.280

#1	-.0057	.00004	.00024	-.00100	.00246	.00050	.00169	-.00169
#2	.0055	.00008	.00061	-.00138	.00041	.01886	.00123	-.00362

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00028	.04433	-.00008	.00085	.0176	-.00121	.00012
Stddev	.00000	.00011	.00455	.00024	.00027	.0014	.00009	.00087
%RSD	.02844	37.359	10.258	290.56	31.995	7.779	7.1106	731.30

#1	.00030	.00036	.04754	.00009	.00066	.0185	-.00127	-.00050
#2	.00030	.00021	.04111	-.00025	.00105	.0166	-.00115	.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 20:47:16 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01860	-.00063	-.00010	-.00005	.00067	-.00031	.00101
Stddev	.01054	.00001	.00005	.00028	.00010	.00017	.00083
%RSD	56.662	1.8578	48.755	574.94	14.455	53.732	82.262

#1	-.02605	-.00062	-.00014	.00015	.00060	-.00019	.00160
#2	-.01115	-.00064	-.00007	-.00025	.00074	-.00043	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2786.2	4353.1	128790.	7689.3
Stddev	1.7	8.8	66.	9.3
%RSD	.06038	.20206	.05156	.12043

#1	2785.1	4346.9	128840.	7695.8
#2	2787.4	4359.3	128740.	7682.7

Sample Name: CCVL-4970377 Acquired: 10/31/2018 20:51:10 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00573	.19663	.01543	.01773	.00206	.00196	.50930	.00204
Stddev	.00012	.02703	.00017	.00031	.00001	.00011	.00229	.00001
%RSD	2.1383	13.746	1.1164	1.7493	.67160	5.7190	.44877	.48878
#1	.00582	.21574	.01556	.01795	.00207	.00203	.50769	.00203
#2	.00564	.17752	.01531	.01751	.00205	.00188	.51092	.00205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0183	.00391	.00415	.00845	.05291	.43265	.02777	.20304
Stddev	.0013	.00011	.00029	.00014	.00194	.00157	.00105	.00210
%RSD	6.920	2.6961	6.9071	1.6651	3.6687	.36356	3.7686	1.0319
#1	-.0174	.00398	.00435	.00855	.05154	.43154	.02703	.20156
#2	-.0192	.00384	.00395	.00835	.05428	.43376	.02851	.20453

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00319	.00873	1.0152	.01049	.01071	.1914	.01596	.02062
Stddev	.00007	.00005	.0028	.00018	.00096	.0057	.00005	.00242
%RSD	2.1596	.56912	.27434	1.7426	8.9450	2.988	.30907	11.737
#1	.00324	.00876	1.0132	.01062	.01004	.1955	.01600	.02234
#2	.00314	.00869	1.0172	.01036	.01139	.1874	.01593	.01891

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 10/31/2018 20:51:10 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43310	.00962	.00517	.00480	.01957	.00493	.01074
Stddev	.03384	.00023	.00011	.00006	.00043	.00003	.00047
%RSD	7.8129	2.3940	2.1066	1.2217	2.2186	.65890	4.4037

#1	.40918	.00978	.00525	.00476	.01988	.00491	.01108
#2	.45703	.00946	.00509	.00484	.01927	.00496	.01041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2781.4	4356.8	129740.	7777.3
Stddev	1.9	8.2	85.	1.6
%RSD	.06875	.18798	.06530	.02089

#1	2780.1	4351.0	129680.	7778.4
#2	2782.8	4362.6	129800.	7776.1

Sample Name: 480-143764-D-4-A Acquired: 10/31/2018 20:55:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.07592	.01112	1.6359	.21978
Stddev	.00009	.00865	.00123	.0006	.00014
%RSD	20.102	11.387	11.093	.03571	.06527

#1	-.00051	.08204	.01024	1.6355	.21968
#2	-.00039	.06981	.01199	1.6363	.21988

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	229.57	.00050	.0055	.00521
Stddev	.00000	.14	.00014	.0096	.00015
%RSD	6.1179	.06220	27.453	173.0	2.9604

#1	.00007	229.47	.00040	-.0012	.00532
#2	.00006	229.67	.00059	.0123	.00510

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00442	.01347	17.093	235.30	.10069
Stddev	.00014	.00009	.047	.22	.00216
%RSD	3.1142	.65019	.27365	.09352	2.1446

#1	.00452	.01341	17.060	235.14	.09917
#2	.00433	.01354	17.126	235.46	.10222

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-4-A Acquired: 10/31/2018 20:55:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	121.22	1.4312	.00002	366.97	.02220
Stddev	.05	.0001	.00001	.43	.00004
%RSD	.04230	.00871	52.528	.11802	.15889

#1	121.18	1.4313	.00002	366.67	.02222
#2	121.26	1.4312	.00001	367.28	.02217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00484	F 107.5	-.00106	-.01069	11.369
Stddev	.00115	.2	.00154	.00360	.020
%RSD	23.880	.1795	145.46	33.649	.17341

#1	.00565	107.6	-.00214	-.00814	11.383
#2	.00402	107.3	.00003	-.01323	11.355

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00149	1.3691	.00217	.00155	.00294
Stddev	.00108	.0017	.00002	.00170	.00074
%RSD	72.800	.12288	.84260	109.78	25.158

#1	.00072	1.3680	.00216	.00275	.00347
#2	.00225	1.3703	.00218	.00035	.00242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-4-A Acquired: 10/31/2018 20:55:01 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03412**
 Stddev .00061
 %RSD 1.7817

#1 **.03455**
 #2 **.03369**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2242.3	3838.1	114830.	7576.3
Stddev	1.1	.6	205.	1.5
%RSD	.05049	.01469	.17851	.01947

#1	2243.1	3838.5	114970.	7577.3
#2	2241.5	3837.7	114680.	7575.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	80.025%	93.043%	87.895%	95.693%
Range				

Sample Name: 480-143764-D-5-A Acquired: 10/31/2018 20:58:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	-.01233	-.00109	.25737	.10762
Stddev	.00000	.00541	.00526	.00042	.00018
%RSD	.36703	43.878	483.92	.16452	.16755

#1	-.00079	-.00850	.00263	.25767	.10749
#2	-.00079	-.01615	-.00481	.25707	.10774

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	66.592	.00026	.0155	-.00059
Stddev	.00007	.206	.00008	.0346	.00021
%RSD	46.658	.30862	30.556	222.7	35.358

#1	.00019	66.447	.00020	-.0089	-.00044
#2	.00010	66.738	.00032	.0400	-.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00515	.00463	148.28	8.0258	.03666
Stddev	.00041	.00009	.44	.0125	.00063
%RSD	8.0406	1.8633	.29579	.15582	1.7134

#1	.00544	.00469	147.97	8.0170	.03621
#2	.00486	.00457	148.59	8.0347	.03710

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-5-A Acquired: 10/31/2018 20:58:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.278	1.2327	-.00150	158.51	.00195
Stddev	.044	.0025	.00022	.51	.00029
%RSD	.23990	.19944	14.764	.32265	15.010

#1	18.247	1.2310	-.00166	158.14	.00174
#2	18.309	1.2345	-.00134	158.87	.00216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00355	60.59	.00324	-.00294	9.7666
Stddev	.00014	.14	.00117	.00081	.0049
%RSD	3.8902	.2312	36.056	27.465	.05049

#1	.00345	60.49	.00406	-.00351	9.7631
#2	.00364	60.68	.00241	-.00237	9.7701

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.32357	-.00047	-.00072	.00111
Stddev	.00058	.00076	.00043	.00025	.00035
%RSD	74.963	.23611	92.028	35.187	31.617

#1	.00036	.32303	-.00016	-.00089	.00086
#2	.00118	.32411	-.00078	-.00054	.00136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-5-A Acquired: 10/31/2018 20:58:53 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02664**
 Stddev .00017
 %RSD .64245

#1 **.02676**
 #2 **.02652**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2470.2	4096.4	121880.	7681.1
Stddev	.8	3.7	83.	18.0
%RSD	.03266	.09113	.06847	.23381

#1	2469.6	4099.1	121940.	7693.7
#2	2470.8	4093.8	121820.	7668.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.161%	99.304%	93.291%	97.016%
Range				

Sample Name: 480-143764-D-6-A Acquired: 10/31/2018 21:02:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	.03825	-.00003	.22187	.12589
Stddev	.00041	.01212	.00434	.00034	.00045
%RSD	63.506	31.696	12758.	.15260	.35398

#1	-.00093	.02967	-.00310	.22163	.12620
#2	-.00036	.04682	.00303	.22210	.12557

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	28.377	.00004	-.0077	-.00021
Stddev	.00001	.022	.00012	.0084	.00011
%RSD	371.11	.07801	262.07	108.7	50.572

#1	-.00000	28.392	.00013	-.0018	-.00028
#2	.00001	28.361	-.00004	-.0137	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.00007	65.735	5.6961	.02596
Stddev	.00015	.00000	.259	.0320	.00002
%RSD	27.248	2.6802	.39366	.56207	.06647

#1	-.00045	.00007	65.918	5.6735	.02595
#2	-.00067	.00007	65.552	5.7188	.02598

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-6-A Acquired: 10/31/2018 21:02:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.5447	.45400	-.00080	80.555	.00671
Stddev	.0003	.00022	.00002	.034	.00009
%RSD	.00300	.04828	2.5273	.04256	1.3629

#1	9.5449	.45384	-.00082	80.531	.00678
#2	9.5445	.45415	-.00079	80.579	.00665

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00196	23.36	-.00100	-.00302	8.3975
Stddev	.00034	.03	.00042	.00202	.0178
%RSD	17.525	.1230	41.742	66.892	.21209

#1	.00172	23.34	-.00070	-.00445	8.3849
#2	.00220	23.38	-.00129	-.00159	8.4101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.15794	-.00058	.00163	.00175
Stddev	.00024	.00055	.00040	.00076	.00058
%RSD	208.68	.34748	68.809	46.633	33.452

#1	-.00028	.15833	-.00086	.00217	.00133
#2	.00005	.15756	-.00030	.00109	.00216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-6-A Acquired: 10/31/2018 21:02:39 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01377**
 Stddev .00032
 %RSD 2.3583

#1 **.01400**
 #2 **.01355**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2587.7	4198.4	124800.	7768.6
Stddev	.7	9.5	374.	2.4
%RSD	.02633	.22572	.29978	.03045

#1	2588.1	4205.1	124530.	7766.9
#2	2587.2	4191.7	125060.	7770.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.353%	101.78%	95.527%	98.122%
Range				

Sample Name: 480-143764-D-7-A Acquired: 10/31/2018 21:06:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00125	.00780	-.00050	.10577	.05977
Stddev	.00064	.00918	.00095	.00048	.00002
%RSD	51.482	117.78	189.72	.45027	.03240

#1	-.00170	.01429	-.00118	.10611	.05976
#2	-.00079	.00130	.00017	.10544	.05978

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	69.961	.00016	.0256	-.00027
Stddev	.00006	.140	.00001	.0089	.00025
%RSD	29.680	.20004	6.4147	34.75	91.823

#1	.00024	70.060	.00016	.0319	-.00010
#2	.00015	69.862	.00015	.0193	-.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00116	-.00021	148.87	8.6117	.03528
Stddev	.00019	.00001	.04	.0344	.00007
%RSD	16.634	3.9589	.02420	.39903	.19749

#1	-.00102	-.00022	148.84	8.6360	.03533
#2	-.00129	-.00021	148.90	8.5874	.03523

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-7-A Acquired: 10/31/2018 21:06:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.720	1.0743	-.00146	195.52	.00355
Stddev	.020	.0007	.00003	.34	.00045
%RSD	.12159	.06118	1.9647	.17315	12.728

#1	16.706	1.0748	-.00144	195.76	.00323
#2	16.734	1.0739	-.00148	195.28	.00387

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00456	66.28	.00081	-.00585	10.391
Stddev	.00131	.06	.00043	.00135	.005
%RSD	28.814	.0956	52.770	23.134	.05211

#1	.00549	66.24	.00112	-.00489	10.387
#2	.00363	66.33	.00051	-.00680	10.395

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.32172	-.00087	.00045	.00118
Stddev	.00001	.00050	.00021	.00073	.00013
%RSD	2.1342	.15467	24.032	162.23	11.120

#1	.00061	.32207	-.00072	-.00007	.00127
#2	.00059	.32137	-.00101	.00096	.00109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-7-A Acquired: 10/31/2018 21:06:25 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.05485**
 Stddev .00201
 %RSD 3.6715

#1 **.05343**
 #2 **.05627**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2447.4	4083.8	121200.	7673.9
Stddev	.0	2.6	158.	27.9
%RSD	.00189	.06274	.13052	.36378

#1	2447.4	4082.0	121310.	7654.2
#2	2447.5	4085.6	121080.	7693.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.348%	98.999%	92.770%	96.926%
Range				

Sample Name: 480-143764-D-8-A Acquired: 10/31/2018 21:10:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00120	.00264	-.00128	.29579	.11201
Stddev	.00030	.00613	.00203	.00012	.00007
%RSD	25.204	232.12	159.19	.03963	.06541

#1	-.00098	-.00169	-.00271	.29570	.11195
#2	-.00141	.00698	.00016	.29587	.11206

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	48.177	.00012	.0106	-.00043
Stddev	.00001	.136	.00006	.0129	.00009
%RSD	6.0238	.28195	50.658	122.3	19.748

#1	.00012	48.273	.00016	.0014	-.00037
#2	.00013	48.081	.00008	.0197	-.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.00359	113.48	6.8460	.03107
Stddev	.00039	.00030	.37	.0433	.00114
%RSD	45.609	8.4524	.32522	.63189	3.6674

#1	-.00112	.00337	113.74	6.8766	.03026
#2	-.00057	.00380	113.22	6.8154	.03188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-8-A Acquired: 10/31/2018 21:10:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.917	.81763	-.00130	207.43	.00208
Stddev	.021	.00090	.00036	.25	.00032
%RSD	.19309	.11050	27.427	.11813	15.556

#1	10.932	.81827	-.00105	207.25	.00185
#2	10.902	.81699	-.00155	207.60	.00231

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01111	43.59	.00066	-.00642	9.2659
Stddev	.00170	.10	.00010	.00167	.0157
%RSD	15.329	.2276	15.685	26.087	.16991

#1	.00991	43.52	.00074	-.00523	9.2548
#2	.01231	43.66	.00059	-.00760	9.2771

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00154	.21689	-.00032	-.00073	.00233
Stddev	.00025	.00081	.00026	.00115	.00011
%RSD	16.441	.37348	83.159	157.83	4.7168

#1	.00136	.21631	-.00013	.00008	.00241
#2	.00172	.21746	-.00050	-.00155	.00225

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143764-D-8-A Acquired: 10/31/2018 21:10:17 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01544**
 Stddev .00044
 %RSD 2.8433

#1 **.01575**
 #2 **.01513**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2472.3	4129.6	121610.	7670.2
Stddev	1.8	2.8	237.	23.6
%RSD	.07125	.06737	.19471	.30784

#1	2471.0	4131.6	121780.	7653.5
#2	2473.5	4127.6	121440.	7686.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.234%	100.11%	93.086%	96.879%
Range				

Sample Name: 480-143813-A-1-A Acquired: 10/31/2018 21:14:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00363	.00209	.00412	.00130
Stddev	.00000	.00272	.00164	.00015	.00000
%RSD	4.6456	75.018	78.639	3.5835	.36537

#1	-.00009	.00555	.00093	.00401	.00129
#2	-.00010	.00170	.00325	.00422	.00130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	5.7633	.00002	-.0101	-.00014
Stddev	.00009	.0321	.00016	.0176	.00006
%RSD	62.370	.55788	697.48	173.5	39.522

#1	-.00008	5.7861	-.00009	-.0226	-.00010
#2	-.00020	5.7406	.00014	.0023	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.06481	.01216	.37458	.00245
Stddev	.00024	.00041	.00105	.02578	.00058
%RSD	47.556	.62679	8.5975	6.8830	23.562

#1	.00033	.06452	.01290	.39281	.00286
#2	.00066	.06510	.01142	.35635	.00204

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-1-A Acquired: 10/31/2018 21:14:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3558	.00009	-.00016	2.0259	.00083
Stddev	.0023	.00002	.00010	.0103	.00004
%RSD	.16939	23.526	61.717	.50796	4.2103

#1	1.3542	.00008	-.00009	2.0187	.00081
#2	1.3575	.00011	-.00023	2.0332	.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00214	2.673	-.00275	-.00125	4.8478
Stddev	.00044	.010	.00016	.00167	.0168
%RSD	20.506	.3830	5.8363	134.31	.34679

#1	.00245	2.666	-.00263	-.00243	4.8597
#2	.00183	2.680	-.00286	-.00006	4.8359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.04103	-.00031	.00047	-.00024
Stddev	.00020	.00005	.00019	.00115	.00002
%RSD	466.15	.12175	61.383	244.98	8.3491

#1	.00010	.04106	-.00044	.00128	-.00022
#2	-.00019	.04099	-.00017	-.00034	-.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-1-A Acquired: 10/31/2018 21:14:08 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02024**
 Stddev .00014
 %RSD .68787

#1 **.02034**
 #2 **.02014**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.6	4379.1	129390.	7839.1
Stddev	1.2	9.7	77.	23.6
%RSD	.04165	.22239	.05985	.30167

#1	2794.8	4386.0	129340.	7822.3
#2	2796.4	4372.2	129450.	7855.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.775%	106.16%	99.045%	99.012%
Range				

Sample Name: 480-143813-A-2-A Acquired: 10/31/2018 21:17:56 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	-.00814	.00210	.00400	.07273
Stddev	.00024	.01201	.00073	.00014	.00011
%RSD	158.62	147.49	34.539	3.5286	.15079

#1	.00002	.00035	.00262	.00390	.07281
#2	-.00032	-.01663	.00159	.00410	.07265

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	8.1022	.00008	-.0129	.00014
Stddev	.00002	.0089	.00006	.0093	.00009
%RSD	11.541	.11049	72.893	71.88	66.958

#1	-.00014	8.0959	.00004	-.0063	.00021
#2	-.00017	8.1086	.00011	-.0195	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.02056	.23747	.29725	.00521
Stddev	.00017	.00024	.00047	.03059	.00016
%RSD	92.991	1.1654	.19739	10.293	2.9814

#1	.00030	.02039	.23780	.31889	.00532
#2	.00006	.02073	.23714	.27562	.00510

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-2-A Acquired: 10/31/2018 21:17:56 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3685	.02233	.00016	8.9472	.00251
Stddev	.0045	.00013	.00010	.0381	.00005
%RSD	.33174	.58546	64.200	.42613	2.1523

#1	1.3717	.02242	.00024	8.9202	.00247
#2	1.3652	.02224	.00009	8.9742	.00255

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00316	1.845	-.00236	.00160	2.2744
Stddev	.00042	.004	.00027	.00268	.0079
%RSD	13.359	.2234	11.249	167.92	.34851

#1	.00346	1.848	-.00217	.00349	2.2800
#2	.00286	1.843	-.00255	-.00030	2.2688

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.29143	-.00016	.00064	-.00038
Stddev	.00020	.00143	.00002	.00181	.00009
%RSD	120.02	.49108	15.603	283.97	23.193

#1	-.00031	.29042	-.00014	.00192	-.00032
#2	-.00003	.29245	-.00018	-.00064	-.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-2-A Acquired: 10/31/2018 21:17:56 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.46235**
 Stddev .00202
 %RSD .43771

#1 **.46378**
 #2 **.46091**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2773.6	4371.2	129290.	7915.2
Stddev	2.0	.7	85.	.6
%RSD	.07315	.01701	.06596	.00731

#1	2772.2	4371.7	129230.	7914.8
#2	2775.1	4370.7	129350.	7915.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.990%	105.96%	98.967%	99.974%
Range				

Sample Name: 480-143813-A-3-A Acquired: 10/31/2018 21:21:44 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.01567	.00078	.00387	.00118
Stddev	.00070	.01597	.00037	.00014	.00001
%RSD	649.07	101.93	47.165	3.6709	.47427

#1	-.00039	-.00437	.00052	.00397	.00118
#2	.00060	-.02696	.00104	.00377	.00117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	5.7691	.00002	.0024	-.00002
Stddev	.00002	.0175	.00003	.0080	.00007
%RSD	23.888	.30278	114.44	329.1	334.50

#1	-.00008	5.7567	.00000	.0081	-.00007
#2	-.00006	5.7814	.00004	-.0032	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.06235	.00576	.34869	.00148
Stddev	.00004	.00020	.00219	.02817	.00018
%RSD	13.772	.31671	38.040	8.0788	12.271

#1	.00029	.06249	.00421	.32878	.00135
#2	.00024	.06221	.00732	.36861	.00160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-3-A Acquired: 10/31/2018 21:21:44 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3610	.00013	-.00024	1.9874	.00073
Stddev	.0034	.00003	.00011	.0120	.00020
%RSD	.24980	20.408	46.833	.60372	26.648

#1	1.3634	.00011	-.00016	1.9789	.00087
#2	1.3586	.00015	-.00033	1.9959	.00060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00203	2.690	-.00175	-.00047	4.8402
Stddev	.00016	.003	.00184	.00134	.0006
%RSD	7.6528	.0966	105.16	284.88	.01213

#1	.00192	2.688	-.00304	.00048	4.8398
#2	.00214	2.692	-.00045	-.00142	4.8406

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	.04113	-.00029	.00092	-.00020
Stddev	.00041	.00009	.00005	.00003	.00018
%RSD	89.739	.22398	16.979	2.8587	90.036

#1	-.00017	.04120	-.00025	.00094	-.00033
#2	-.00074	.04107	-.00032	.00090	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-3-A Acquired: 10/31/2018 21:21:44 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02119**
 Stddev .00065
 %RSD 3.0565

#1 **.02074**
 #2 **.02165**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2791.5	4378.1	130270.	7968.1
Stddev	1.7	4.7	253.	4.8
%RSD	.06223	.10735	.19432	.06051

#1	2792.7	4381.4	130090.	7971.5
#2	2790.3	4374.8	130450.	7964.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.627%	106.13%	99.714%	100.64%
Range				

Sample Name: 480-143813-A-4-A Acquired: 10/31/2018 21:25:32 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00038	.00121	.00374	.00117
Stddev	.00009	.00846	.00011	.00012	.00002
%RSD	39.270	2204.6	9.2281	3.3250	1.3866

#1	-.00016	.00637	.00113	.00382	.00116
#2	-.00029	-.00560	.00129	.00365	.00118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	5.7511	.00008	-.0052	-.00011
Stddev	.00001	.0355	.00009	.0167	.00023
%RSD	7.0356	.61657	121.31	320.7	213.49

#1	-.00010	5.7762	.00001	.0066	-.00027
#2	-.00011	5.7261	.00014	-.0170	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.03168	.01033	.32742	.00120
Stddev	.00002	.00031	.00449	.02557	.00067
%RSD	7.8794	.98474	43.439	7.8098	56.183

#1	.00020	.03146	.00716	.30934	.00168
#2	.00022	.03190	.01351	.34551	.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-4-A Acquired: 10/31/2018 21:25:32 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3512	.00044	-.00030	1.9789	.01197
Stddev	.0023	.00006	.00001	.0051	.00022
%RSD	.17136	12.529	1.6999	.25852	1.8583

#1	1.3496	.00048	-.00031	1.9753	.01182
#2	1.3529	.00040	-.00030	1.9825	.01213

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00133	2.676	-.00041	.00072	4.8168
Stddev	.00086	.008	.00122	.00258	.0376
%RSD	64.533	.2863	295.64	356.63	.78000

#1	.00072	2.681	.00045	.00255	4.8433
#2	.00194	2.671	-.00127	-.00110	4.7902

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	.04077	.00002	.00010	-.00017
Stddev	.00023	.00003	.00025	.00089	.00019
%RSD	35.771	.06928	1039.1	905.08	114.61

#1	-.00048	.04079	-.00016	-.00053	-.00003
#2	-.00081	.04075	.00020	.00073	-.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-4-A Acquired: 10/31/2018 21:25:32 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02331**
 Stddev .00034
 %RSD 1.4588

#1 **.02307**
 #2 **.02355**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2792.7	4371.9	130080.	7890.7
Stddev	1.5	3.4	123.	53.6
%RSD	.05405	.07841	.09456	.67889

#1	2793.8	4374.4	130160.	7852.8
#2	2791.6	4369.5	129990.	7928.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.671%	105.98%	99.566%	99.664%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 21:29:22 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50586	24.818	F .44525	F .43785	.50419	.50791	24.838
Stddev	.00213	.122	.00020	.00018	.00098	.00191	.009
%RSD	.42089	.49274	.04583	.04003	.19346	.37640	.03634

#1	.50436	24.905	.44511	.43773	.50350	.50926	24.845
#2	.50737	24.732	.44540	.43797	.50488	.50656	24.832

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45983	-.0181	.49016	.52081	.50414	25.706	25.313
Stddev	.00077	.0027	.00006	.00104	.00027	.121	.023
%RSD	.16827	14.73	.01180	.20036	.05443	.46951	.09151

#1	.46037	-.0163	.49012	.52007	.50395	25.791	25.297
#2	.45928	-.0200	.49020	.52155	.50433	25.620	25.329

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48869	24.567	.53085	.45354	25.942	.51657	.48165
Stddev	.00211	.027	.00010	.00083	.078	.00101	.00285
%RSD	.43108	.10849	.01841	.18379	.29998	.19479	.59191

#1	.49018	24.548	.53078	.45295	25.997	.51728	.48366
#2	.48720	24.586	.53092	.45413	25.887	.51585	.47963

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 21:29:22 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.53	.45886	.46664	24.264	.49774	.54274	.50631
Stddev	.03	.00218	.00177	.021	.00011	.00071	.00053
%RSD	.1195	.47518	.37941	.08569	.02183	.13106	.10425

#1	22.51	.46040	.46789	24.279	.49782	.54325	.50668
#2	22.55	.45732	.46539	24.249	.49766	.54224	.50594

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47155	.52700	.49325
Stddev	.00047	.00155	.00069
%RSD	.09915	.29469	.13890

#1	.47122	.52590	.49277
#2	.47188	.52810	.49374

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2616.2	4253.7	125600.	7656.7
Stddev	3.1	3.4	285.	32.6
%RSD	.12026	.08080	.22665	.42595

#1	2614.0	4251.3	125800.	7633.6
#2	2618.4	4256.2	125400.	7679.8

Sample Name: CCB-4957862 Acquired: 10/31/2018 21:33:05 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	.01736	.00051	-.00017	-.00000	-.00011	.00953	.00009
Stddev	.00012	.01776	.00018	.00018	.00000	.00002	.00312	.00000
%RSD	27.771	102.30	35.549	103.93	8.4228	15.198	32.735	3.2882

#1	-.00050	.00480	.00038	-.00005	-.00000	-.00010	.00732	.00009
#2	-.00034	.02992	.00064	-.00030	-.00000	-.00012	.01173	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0025	-.00004	.00017	-.00170	.00071	-.02504	.00085	-.00089
Stddev	.0061	.00011	.00003	.00014	.00029	.01431	.00106	.00047
%RSD	244.3	267.35	15.341	8.4901	40.817	57.160	124.09	52.615

#1	-.0069	-.00012	.00015	-.00180	.00050	-.03516	.00010	-.00122
#2	.0018	.00004	.00018	-.00160	.00091	-.01492	.00160	-.00056

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00011	.03247	.00025	-.00006	.0101	-.00178	-.00085
Stddev	.00001	.00015	.00120	.00037	.00119	.0014	.00028	.00285
%RSD	5.3473	138.12	3.7108	143.89	1854.8	13.71	15.560	336.68

#1	.00010	.00021	.03332	.00051	.00078	.0110	-.00158	-.00287
#2	.00011	.00000	.03162	-.00000	-.00091	.0091	-.00197	.00117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 21:33:05 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.03149	-0.00084	-0.00011	-0.00013	-0.00024	-0.00051	.00095
Stddev	.00594	.00086	.00005	.00037	.00044	.00014	.00090
%RSD	18.860	102.26	46.934	279.44	185.57	27.113	94.531

#1	-0.03569	-0.00023	-0.00015	.00013	.00007	-0.00042	.00032
#2	-0.02729	-0.00145	-0.00008	-0.00040	-0.00055	-0.00061	.00159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2740.3	4338.4	126590.	7548.6
Stddev	2.4	3.6	3.	1.5
%RSD	.08889	.08363	.00275	.01933

#1	2738.6	4341.0	126590.	7547.6
#2	2742.0	4335.9	126590.	7549.7

Sample Name: CCVL-4970377 Acquired: 10/31/2018 21:36:57 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00516	.16560	.01411	.01772	.00202	.00191	.51189	.00203
Stddev	.00040	.00790	.00136	.00009	.00001	.00016	.00049	.00016
%RSD	7.6805	4.7692	9.6116	.48076	.30172	8.1800	.09523	7.8039
#1	.00544	.17119	.01507	.01766	.00203	.00202	.51223	.00192
#2	.00488	.16002	.01316	.01778	.00202	.00180	.51154	.00214

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039	.00388	.00426	.00850	.05100	.48428	.02797	.20363
Stddev	.0212	.00015	.00014	.00004	.00063	.01055	.00122	.00295
%RSD	548.5	3.9336	3.1770	.49337	1.2398	2.1786	4.3455	1.4492
#1	.0189	.00377	.00436	.00847	.05144	.47682	.02711	.20572
#2	-.0111	.00399	.00417	.00853	.05055	.49174	.02883	.20154

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00327	.00828	.98835	.01056	.01028	.1816	.01724	.02232
Stddev	.00001	.00018	.01291	.00011	.00202	.0010	.00112	.00258
%RSD	.29616	2.1714	1.3060	1.0342	19.676	.5614	6.4669	11.573
#1	.00328	.00815	.97923	.01049	.00885	.1823	.01803	.02049
#2	.00326	.00841	.99748	.01064	.01171	.1809	.01646	.02415

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 21:36:57 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43643	.00960	.00509	.00472	.01819	.00495	.00973
Stddev	.00317	.00021	.00001	.00001	.00002	.00002	.00114
%RSD	.72619	2.1665	.11409	.27822	.08730	.41685	11.680

#1	.43867	.00946	.00509	.00471	.01817	.00496	.01053
#2	.43419	.00975	.00509	.00472	.01820	.00493	.00892

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2750.7	4381.9	127910.	7655.6
Stddev	.8	5.6	612.	19.5
%RSD	.02869	.12818	.47843	.25495

#1	2750.1	4377.9	127480.	7641.8
#2	2751.2	4385.9	128350.	7669.5

Sample Name: 480-143813-A-5-A Acquired: 10/31/2018 21:40:48 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.01480	.00253	.00367	.00520
Stddev	.00000	.02069	.00199	.00032	.00000
%RSD	2.3164	139.84	78.808	8.7531	.01291

#1	-.00012	.00017	.00112	.00390	.00520
#2	-.00012	.02943	.00394	.00345	.00520

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	6.0381	.00004	-.0292	.00012
Stddev	.00005	.0019	.00000	.0130	.00040
%RSD	51.018	.03224	4.0609	44.65	338.22

#1	-.00006	6.0395	.00004	-.0384	.00040
#2	-.00013	6.0367	.00004	-.0200	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.01806	.02501	.30907	.00165
Stddev	.00001	.00004	.00097	.05264	.00039
%RSD	4.6384	.22761	3.8679	17.032	23.404

#1	.00027	.01809	.02570	.27185	.00138
#2	.00029	.01803	.02433	.34629	.00192

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-5-A Acquired: 10/31/2018 21:40:48 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3854	.00446	-.00034	2.0201	.01631
Stddev	.0044	.00007	.00013	.0076	.00036
%RSD	.31578	1.5079	37.863	.37807	2.2169

#1	1.3823	.00441	-.00025	2.0255	.01605
#2	1.3885	.00451	-.00044	2.0147	.01656

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00218	2.098	-.00097	-.00228	4.4159
Stddev	.00068	.011	.00165	.00311	.0107
%RSD	31.105	.4996	169.80	136.38	.24334

#1	.00266	2.105	.00019	-.00008	4.4083
#2	.00170	2.090	-.00214	-.00448	4.4235

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.07252	-.00015	.00055	.00022
Stddev	.00027	.00028	.00007	.00030	.00013
%RSD	139.12	.38185	44.738	55.491	58.140

#1	-.00000	.07271	-.00019	.00076	.00031
#2	-.00038	.07232	-.00010	.00033	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143813-A-5-A Acquired: 10/31/2018 21:40:48 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.31028**
 Stddev .00220
 %RSD .70953

#1 **.30872**
 #2 **.31183**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2758.4	4378.8	127800.	7757.5
Stddev	5.4	14.2	406.	3.5
%RSD	.19516	.32408	.31801	.04535

#1	2754.6	4368.7	128090.	7760.0
#2	2762.2	4388.8	127510.	7755.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.446%	106.15%	97.824%	97.983%
Range				

Sample Name: 480-143814-A-1-A Acquired: 10/31/2018 21:44:37 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.09602	.00433	.00178	.01792
Stddev	.00087	.03424	.00030	.00055	.00001
%RSD	1185.3	35.654	6.9944	30.965	.07180

#1	-.00069	.12023	.00411	.00139	.01791
#2	.00054	.07181	.00454	.00217	.01793

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	52.318	.00011	-.0107	.00053
Stddev	.00013	.016	.00003	.0252	.00013
%RSD	156.96	.03100	28.319	236.4	24.500

#1	-.00017	52.329	.00009	.0072	.00044
#2	.00001	52.306	.00013	-.0285	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00177	-.00115	1.3902	6.1979	.02264
Stddev	.00016	.00050	.0071	.0086	.00033
%RSD	8.8415	43.624	.50869	.13823	1.4542

#1	.00188	-.00080	1.3852	6.2040	.02287
#2	.00166	-.00150	1.3952	6.1919	.02241

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-1-A Acquired: 10/31/2018 21:44:37 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.756	.52248	.00438	6.8705	.00234
Stddev	.038	.00098	.00004	.0118	.00004
%RSD	.35460	.18666	.83281	.17205	1.7060

#1	10.783	.52317	.00440	6.8789	.00237
#2	10.729	.52179	.00435	6.8621	.00231

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00139	.2759	-.00123	-.00141	2.7006
Stddev	.00031	.0008	.00205	.00117	.0109
%RSD	22.396	.2796	167.40	82.753	.40488

#1	.00117	.2754	-.00268	-.00058	2.7083
#2	.00162	.2765	.00023	-.00223	2.6929

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	.22116	.00102	.00083	.00202
Stddev	.00038	.00022	.00006	.00088	.00036
%RSD	54.844	.10011	5.5684	105.70	17.758

#1	-.00042	.22131	.00098	.00146	.00176
#2	-.00095	.22100	.00107	.00021	.00227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-1-A Acquired: 10/31/2018 21:44:37 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00699**
 Stddev .00027
 %RSD 3.8805

#1 **.00680**
 #2 **.00719**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.9	4251.4	124450.	7612.3
Stddev	2.2	7.4	410.	.5
%RSD	.08402	.17423	.32914	.00701

#1	2638.3	4256.7	124160.	7612.7
#2	2641.5	4246.2	124730.	7611.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.218%	103.06%	95.257%	96.148%
Range				

Sample Name: 480-143814-A-2-A Acquired: 10/31/2018 21:48:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	.17829	.01803	.00214	.99225
Stddev	.00086	.00765	.00072	.00042	.00113
%RSD	108.63	4.2899	3.9705	19.557	.11346

#1	-.00018	.18370	.01753	.00184	.99145
#2	-.00140	.17288	.01854	.00243	.99305

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	F 1563.0	.00036	-.0149	.00139
Stddev	.00000	11.3	.00016	.0319	.00000
%RSD	1.1674	.72171	43.893	214.3	.19509

#1	-.00003	1555.0	.00047	-.0375	.00139
#2	-.00003	1571.0	.00025	.0077	.00139

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00052	-.00077	9.8544	25.254	.02045
Stddev	.00009	.00016	.0328	.078	.00012
%RSD	16.509	20.819	.33244	.30717	.56859

#1	.00046	-.00066	9.8312	25.199	.02037
#2	.00058	-.00089	9.8775	25.309	.02053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-2-A Acquired: 10/31/2018 21:48:25 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 648.50	6.4420	.00096	573.38	.02992
Stddev	4.51	.0316	.00004	.78	.00072
%RSD	.69538	.48976	4.5248	.13541	2.4018

#1	645.31	6.4197	.00093	572.84	.03042
#2	651.69	6.4644	.00099	573.93	.02941

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	450.00				
Low Limit	-.20000				

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00728	6.711	.00119	.00170	3.2034
Stddev	.00031	.008	.00140	.00014	.0034
%RSD	4.3124	.1155	117.25	7.9954	.10618

#1	-.00750	6.706	.00020	.00160	3.2010
#2	-.00706	6.717	.00218	.00180	3.2058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00292	F 9.8435	.00423	-.00597	-.00087
Stddev	.00144	.0767	.00039	.00255	.00058
%RSD	49.478	.77911	9.2590	42.754	65.910

#1	.00190	9.7892	.00450	-.00777	-.00047
#2	.00394	9.8977	.00395	-.00416	-.00128

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143814-A-2-A Acquired: 10/31/2018 21:48:25 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00359**
 Stddev .00055
 %RSD 15.264

#1 **.00398**
 #2 **.00320**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1897.5	3411.1	102960.	7052.4
Stddev	1.1	2.6	265.	41.6
%RSD	.05573	.07506	.25709	.58925

#1	1896.7	3412.9	103150.	7081.8
#2	1898.2	3409.3	102770.	7023.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.721%	82.690%	78.810%	89.076%
Range				

Sample Name: 480-143814-A-2-B MS Acquired: 10/31/2018 21:52:46 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05696	11.061	.22962	.19435	1.2360
Stddev	.00076	.018	.00429	.00049	.0014
%RSD	1.3325	.16205	1.8702	.25412	.11176

#1	.05749	11.074	.22659	.19400	1.2370
#2	.05642	11.048	.23266	.19470	1.2350

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20289	F 1618.7	.20841	-.0172	.20152
Stddev	.00053	4.1	.00046	.0041	.00108
%RSD	.26069	.25626	.21953	23.73	.53648

#1	.20251	1615.8	.20874	-.0143	.20228
#2	.20326	1621.6	.20809	-.0201	.20075

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20000	.22078	20.149	39.439	.27273
Stddev	.00011	.00007	.061	.055	.00059
%RSD	.05688	.03308	.30329	.14046	.21713

#1	.20008	.22072	20.106	39.399	.27231
#2	.19992	.22083	20.193	39.478	.27315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-2-B MS Acquired: 10/31/2018 21:52:46 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 681.87	6.9243	.17786	608.23	.24597
Stddev	.07	.0086	.00164	1.20	.00174
%RSD	.01086	.12444	.92063	.19781	.70843

#1	681.82	6.9304	.17902	609.08	.24720
#2	681.93	6.9182	.17670	607.38	.24473

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	450.00				
Low Limit	-.20000				

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18728	16.98	.20443	.24295	13.587
Stddev	.00183	.02	.00213	.00368	.042
%RSD	.97892	.1207	1.0415	1.5135	.30790

#1	.18599	16.99	.20593	.24555	13.557
#2	.18858	16.96	.20292	.24035	13.616

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20820	F 10.516	.21621	.17639	.21308
Stddev	.00107	.067	.00105	.00313	.00087
%RSD	.51533	.63838	.48447	1.7736	.40943

#1	.20896	10.564	.21695	.17861	.21370
#2	.20744	10.469	.21547	.17418	.21247

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143814-A-2-B MS Acquired: 10/31/2018 21:52:46 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.18323**
Stddev .00144
%RSD .78668

#1 **.18221**
#2 **.18425**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1874.6	3393.0	101770.	6993.2
Stddev	2.8	2.0	122.	3.5
%RSD	.14872	.05877	.11974	.05039

#1	1872.6	3391.6	101860.	6995.7
#2	1876.6	3394.5	101690.	6990.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	66.904%	82.253%	77.903%	88.328%
Range				

Sample Name: 480-143814-A-2-C MSD Acquired: 10/31/2018 21:56:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05529	10.729	.22866	.19316	1.1873
Stddev	.00014	.000	.00450	.00088	.0018
%RSD	.24968	.00372	1.9699	.45722	.15374

#1	.05519	10.730	.23185	.19378	1.1860
#2	.05538	10.729	.22548	.19254	1.1886

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19818	F 1563.5	.20620	-.0470	.19841
Stddev	.00075	6.0	.00059	.0037	.00029
%RSD	.37746	.38187	.28707	7.936	.14382

#1	.19765	1559.3	.20662	-.0496	.19861
#2	.19871	1567.8	.20578	-.0444	.19820

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19207	.21607	19.392	38.437	.26752
Stddev	.00090	.00050	.083	.046	.00017
%RSD	.46843	.22916	.42688	.12013	.06175

#1	.19144	.21642	19.333	38.404	.26763
#2	.19271	.21572	19.450	38.470	.26740

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-2-C MSD Acquired: 10/31/2018 21:56:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 656.10	6.6100	.17640	580.87	.24117
Stddev	1.12	.0336	.00074	1.14	.00000
%RSD	.17017	.50858	.41942	.19633	.00039

#1	655.31	6.5863	.17692	580.07	.24117
#2	656.89	6.6338	.17588	581.68	.24117

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	450.00				
Low Limit	-.20000				

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18522	16.78	.19822	.23525	13.179
Stddev	.00067	.08	.00267	.00567	.033
%RSD	.35913	.4508	1.3470	2.4112	.25239

#1	.18569	16.84	.20010	.23926	13.156
#2	.18475	16.73	.19633	.23124	13.203

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20552	F 9.9142	.21485	.17664	.20377
Stddev	.00045	.0294	.00088	.00274	.00181
%RSD	.22106	.29650	.41040	1.5508	.88664

#1	.20584	9.8934	.21547	.17858	.20249
#2	.20520	9.9350	.21423	.17470	.20505

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143814-A-2-C MSD Acquired: 10/31/2018 21:56:59 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.17975**
 Stddev .00314
 %RSD 1.7448

#1 **.17754**
 #2 **.18197**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1881.0	3392.3	103360.	7107.7
Stddev	1.0	12.1	76.	17.1
%RSD	.05570	.35755	.07336	.24099

#1	1880.3	3383.7	103420.	7119.9
#2	1881.7	3400.9	103310.	7095.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	67.132%	82.235%	79.120%	89.775%
Range				

Sample Name: 480-143814-A-5-A Acquired: 10/31/2018 22:01:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.08044	.00630	.01182	.02766
Stddev	.00016	.00329	.00147	.00013	.00009
%RSD	71.278	4.0892	23.392	1.0772	.31843

#1	-.00033	.07811	.00526	.01191	.02773
#2	-.00011	.08276	.00734	.01173	.02760

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	8.8342	.00024	.0214	.00618
Stddev	.00005	.0203	.00006	.0010	.00012
%RSD	86.801	.22939	24.701	4.581	1.9532

#1	-.00002	8.8198	.00029	.0221	.00626
#2	-.00009	8.8485	.00020	.0207	.00609

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.01206	52.832	2.4541	.00270
Stddev	.00004	.00012	.018	.0201	.00024
%RSD	10.013	.99528	.03502	.81752	9.0506

#1	.00043	.01198	52.819	2.4683	.00253
#2	.00037	.01215	52.845	2.4399	.00287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-5-A Acquired: 10/31/2018 22:01:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.2914	.85278	.00036	2.1219	.00442
Stddev	.0047	.00015	.00010	.0150	.00006
%RSD	.20627	.01704	28.655	.70590	1.3162

#1	2.2881	.85288	.00029	2.1325	.00446
#2	2.2948	.85268	.00043	2.1114	.00438

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00610	2.274	-.00118	-.00279	3.5173
Stddev	.00097	.004	.00053	.00014	.0194
%RSD	15.892	.1582	45.236	5.0057	.55045

#1	.00679	2.277	-.00155	-.00289	3.5036
#2	.00542	2.272	-.00080	-.00269	3.5310

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.04850	.00114	-.00114	.00070
Stddev	.00019	.00020	.00006	.00007	.00029
%RSD	281.21	.41149	5.6619	6.2854	41.856

#1	.00007	.04864	.00118	-.00120	.00090
#2	-.00020	.04836	.00109	-.00109	.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-5-A Acquired: 10/31/2018 22:01:12 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02404**
 Stddev .00028
 %RSD 1.1818

#1 **.02384**
 #2 **.02424**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2694.0	4283.1	126250.	7572.3
Stddev	7.7	5.9	29.	7.8
%RSD	.28664	.13682	.02272	.10288

#1	2699.4	4287.2	126270.	7566.8
#2	2688.5	4279.0	126230.	7577.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.147%	103.83%	96.636%	95.643%
Range				

Sample Name: 480-143814-A-4-A Acquired: 10/31/2018 22:04:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.22815	.00540	.00253	.02269
Stddev	.00016	.02118	.00055	.00005	.00003
%RSD	26.391	9.2815	10.213	1.9075	.12418

#1	.00070	.21318	.00579	.00256	.02267
#2	.00048	.24312	.00501	.00249	.02271

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	55.557	.00027	-.0081	.00098
Stddev	.00010	.084	.00003	.0253	.00033
%RSD	79.978	.15199	10.709	313.8	33.427

#1	-.00020	55.498	.00025	-.0259	.00075
#2	-.00006	55.617	.00029	.0098	.00121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00255	.00029	1.9579	6.8118	.02432
Stddev	.00037	.00029	.0047	.0757	.00026
%RSD	14.502	100.70	.24234	1.1119	1.0572

#1	.00229	.00049	1.9546	6.7582	.02450
#2	.00281	.00008	1.9613	6.8654	.02414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-4-A Acquired: 10/31/2018 22:04:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.473	.54820	.00478	7.5142	.00334
Stddev	.005	.00059	.00020	.0151	.00029
%RSD	.04270	.10741	4.2136	.20151	8.5274

#1	11.477	.54778	.00464	7.5249	.00314
#2	11.470	.54861	.00493	7.5035	.00354

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.3255	-.00074	-.00073	2.9495
Stddev	.00108	.0006	.00074	.00266	.0113
%RSD	471.14	.1790	98.759	363.62	.38425

#1	-.00053	.3251	-.00022	.00115	2.9415
#2	.00099	.3259	-.00126	-.00261	2.9575

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.25731	.00171	.00108	.00392
Stddev	.00020	.00029	.00007	.00089	.00022
%RSD	27.488	.11235	4.0938	82.427	5.5807

#1	.00059	.25752	.00176	.00170	.00407
#2	.00087	.25711	.00166	.00045	.00376

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-4-A Acquired: 10/31/2018 22:04:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.01736**
Stddev .00037
%RSD 2.1136

#1 **.01762**
#2 **.01710**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2624.1	4204.3	125420.	7651.2
Stddev	2.8	18.0	197.	.6
%RSD	.10805	.42900	.15726	.00725

#1	2626.1	4217.0	125560.	7650.8
#2	2622.1	4191.5	125280.	7651.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.652%	101.92%	96.006%	96.639%
Range				

Sample Name: 480-143814-A-3-A Acquired: 10/31/2018 22:08:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.02506	.00094	.01087	.01559
Stddev	.00020	.00959	.00007	.00035	.00002
%RSD	1459.2	38.246	7.2808	3.1939	.13432

#1	-.00013	.01828	.00099	.01063	.01560
#2	.00015	.03184	.00090	.01112	.01557

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	13.941	.00012	-.0084	.00011
Stddev	.00000	.010	.00007	.0162	.00038
%RSD	.69387	.07001	56.573	193.9	331.65

#1	-.00009	13.934	.00016	-.0198	.00038
#2	-.00009	13.948	.00007	.0031	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00091	.10988	1.4894	.00048
Stddev	.00006	.00013	.00407	.0033	.00023
%RSD	80.115	14.488	3.7085	.22124	46.902

#1	.00011	-.00100	.10700	1.4871	.00064
#2	.00003	-.00082	.11276	1.4917	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-3-A Acquired: 10/31/2018 22:08:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.2447	.88565	-.00034	1.8078	.00386
Stddev	.0153	.00102	.00015	.0052	.00015
%RSD	.67935	.11470	44.898	.28608	3.8810

#1	2.2555	.88637	-.00045	1.8114	.00397
#2	2.2339	.88493	-.00023	1.8041	.00375

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	1.844	-.00210	-.00111	2.9120
Stddev	.00060	.007	.00068	.00142	.0337
%RSD	254.20	.3618	32.314	128.72	1.1565

#1	-.00019	1.839	-.00162	-.00211	2.8882
#2	.00066	1.848	-.00258	-.00010	2.9359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.04943	.00118	.00065	.00001
Stddev	.00008	.00008	.00006	.00001	.00007
%RSD	14.742	.15985	4.9131	1.1101	863.54

#1	-.00060	.04938	.00122	.00065	.00006
#2	-.00049	.04949	.00114	.00066	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143814-A-3-A Acquired: 10/31/2018 22:08:47 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00522**
 Stddev .00026
 %RSD 4.9897

#1 **.00540**
 #2 **.00503**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2731.5	4300.7	127730.	7704.7
Stddev	2.1	.5	64.	1.8
%RSD	.07757	.01255	.05013	.02274

#1	2730.0	4301.1	127680.	7703.4
#2	2733.0	4300.3	127770.	7705.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.486%	104.26%	97.769%	97.315%
Range				

Sample Name: 480-143734-F-1-A Acquired: 10/31/2018 22:12:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	.01348	.09103	10.323	.65985
Stddev	.00035	.02733	.00165	.007	.00049
%RSD	59.337	202.73	1.8072	.06750	.07429

#1	-.00035	.03281	.09219	10.328	.65950
#2	-.00085	-.00585	.08987	10.318	.66019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	127.02	.00039	.0297	.01725
Stddev	.00001	.15	.00017	.0078	.00007
%RSD	9.1356	.11586	43.034	26.18	.41001

#1	-.00007	126.91	.00027	.0242	.01720
#2	-.00008	127.12	.00052	.0351	.01730

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04341	.00072	8.1615	406.50	.29420
Stddev	.00018	.00028	.0057	.16	.00175
%RSD	.41152	38.948	.06987	.03897	.59520

#1	.04354	.00052	8.1656	406.39	.29296
#2	.04328	.00091	8.1575	406.61	.29543

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143734-F-1-A Acquired: 10/31/2018 22:12:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	116.57	.27617	.00495	F 1121.5	.12419
Stddev	.07	.00000	.00007	1.5	.00011
%RSD	.06205	.00136	1.3832	.13575	.08902

#1	116.62	.27617	.00490	1120.4	.12427
#2	116.52	.27616	.00499	1122.6	.12411

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00065	24.50	.00222	-.00798	18.037
Stddev	.00029	.01	.00125	.00657	.005
%RSD	44.352	.0556	56.475	82.344	.02538

#1	.00085	24.51	.00133	-.00333	18.034
#2	.00044	24.49	.00310	-.01262	18.040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00777	1.0908	.04397	.00260	.02186
Stddev	.00100	.0015	.00031	.00048	.00011
%RSD	12.846	.13481	.69820	18.559	.52289

#1	.00706	1.0897	.04376	.00226	.02178
#2	.00847	1.0918	.04419	.00294	.02194

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143734-F-1-A Acquired: 10/31/2018 22:12:35 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00427**
 Stddev .00022
 %RSD 5.0818

#1 **.00442**
 #2 **.00412**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2093.9	3737.2	109300.	7262.8
Stddev	1.5	3.2	77.	10.1
%RSD	.07210	.08673	.07065	.13933

#1	2095.0	3734.9	109360.	7255.6
#2	2092.8	3739.5	109250.	7269.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.731%	90.595%	83.667%	91.733%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 22:16:32 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51359	24.942	F .44966	.45377	.50845	.50784	24.930
Stddev	.00040	.020	.00188	.00110	.00469	.00022	.019
%RSD	.07847	.08018	.41893	.24159	.92266	.04392	.07550

#1	.51388	24.956	.44833	.45455	.51177	.50768	24.917
#2	.51331	24.927	.45100	.45300	.50514	.50800	24.943

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.50000				
Range			-10.000%				

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46854	-.0429	.49430	.52597	.51249	25.715	25.924
Stddev	.00008	.0027	.00012	.00255	.00073	.008	.035
%RSD	.01672	6.400	.02391	.48410	.14149	.02980	.13664

#1	.46860	-.0410	.49439	.52777	.51198	25.721	25.949
#2	.46849	-.0448	.49422	.52417	.51301	25.710	25.899

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49621	24.847	.53695	.45962	26.658	.51937	.48397
Stddev	.00078	.046	.00021	.00097	.066	.00022	.00041
%RSD	.15680	.18553	.03910	.21110	.24631	.04260	.08563

#1	.49566	24.880	.53710	.46031	26.704	.51921	.48368
#2	.49676	24.814	.53680	.45894	26.611	.51952	.48427

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 22:16:32 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.82	.46729	.47913	24.730	.50086	.54995	.51182
Stddev	.03	.00086	.00015	.054	.00044	.00214	.00093
%RSD	.1112	.18442	.03188	.21731	.08743	.38997	.18136

#1	22.83	.46790	.47924	24.692	.50055	.55147	.51117
#2	22.80	.46668	.47902	24.768	.50117	.54844	.51248

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47492	.53228	.49729
Stddev	.00050	.00231	.00126
%RSD	.10462	.43425	.25238

#1	.47527	.53391	.49818
#2	.47457	.53064	.49640

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2550.8	4129.4	122180.	7393.7
Stddev	.6	2.0	325.	3.4
%RSD	.02535	.04924	.26635	.04535

#1	2551.3	4127.9	121950.	7391.3
#2	2550.3	4130.8	122410.	7396.1

Sample Name: CCB-4957862 Acquired: 10/31/2018 22:20:16 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.00411	.00197	.00479	-.00000	-.00010	.01885	.00008
Stddev	.00008	.02621	.00204	.00030	.00000	.00003	.00380	.00004
%RSD	25.710	638.00	103.42	6.3417	20.828	24.314	20.158	45.734

#1	-.00024	-.01442	.00053	.00501	-.00000	-.00009	.01616	.00005
#2	-.00035	.02264	.00341	.00458	-.00000	-.00012	.02153	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0090	.00002	.00035	-.00142	.00214	.14662	.00016	.00201
Stddev	.0037	.00013	.00016	.00008	.00037	.02433	.00036	.00112
%RSD	41.48	533.24	46.577	5.3339	17.162	16.592	220.83	55.587

#1	-.0116	-.00007	.00047	-.00148	.00240	.16382	-.00009	.00122
#2	-.0063	.00011	.00024	-.00137	.00188	.12942	.00041	.00280

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00039	.21754	.00009	.00014	.0074	-.00215	-.00183
Stddev	.00002	.00012	.01445	.00025	.00077	.0013	.00035	.00220
%RSD	21.046	30.480	6.6439	275.39	535.79	17.09	16.252	120.19

#1	.00007	.00031	.22776	-.00009	-.00040	.0065	-.00239	-.00339
#2	.00009	.00047	.20732	.00027	.00069	.0083	-.00190	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 22:20:16 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02766	-.00033	.00010	-.00013	-.00007	-.00057	.00061
Stddev	.00470	.00020	.00002	.00015	.00071	.00000	.00040
%RSD	17.003	60.991	15.422	118.55	973.08	.31191	65.473

#1	-.02433	-.00019	.00011	-.00002	-.00058	-.00057	.00090
#2	-.03098	-.00047	.00009	-.00023	.00043	-.00057	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2736.4	4318.6	127000.	7536.4
Stddev	.4	3.5	335.	56.7
%RSD	.01331	.08203	.26392	.75244

#1	2736.1	4316.1	127240.	7576.5
#2	2736.6	4321.1	126760.	7496.3

Sample Name: CCVL-4970377 Acquired: 10/31/2018 22:24:08 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00525	.20048	.01441	.02061	.00207	.00184	.51649	.00204
Stddev	.00031	.00763	.00070	.00034	.00001	.00012	.00080	.00014
%RSD	5.9580	3.8077	4.8774	1.6713	.39312	6.5785	.15488	7.0235
#1	.00548	.20588	.01391	.02085	.00208	.00193	.51592	.00194
#2	.00503	.19508	.01490	.02036	.00207	.00176	.51705	.00214

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0293	.00389	.00432	.00813	.05297	.53788	.02773	.20674
Stddev	.0119	.00013	.00019	.00014	.00290	.01997	.00016	.00017
%RSD	40.44	3.4678	4.4372	1.7529	5.4734	3.7126	.59075	.08413
#1	-.0377	.00379	.00418	.00803	.05502	.55200	.02785	.20662
#2	-.0210	.00398	.00445	.00823	.05092	.52376	.02762	.20687

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00332	.00850	1.1596	.01029	.01058	.1762	.01645	.02215
Stddev	.00007	.00004	.0105	.00004	.00100	.0015	.00143	.00094
%RSD	2.1027	.43109	.90580	.42595	9.4099	.8692	8.7026	4.2601
#1	.00327	.00847	1.1521	.01032	.00988	.1772	.01746	.02282
#2	.00337	.00852	1.1670	.01026	.01129	.1751	.01544	.02148

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 22:24:08 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43247	.00869	.00520	.00480	.01884	.00468	.01042
Stddev	.00158	.00044	.00000	.00029	.00019	.00006	.00005
%RSD	.36444	5.0173	.08899	6.1280	1.0288	1.2625	.44148
#1	.43358	.00900	.00520	.00459	.01871	.00473	.01039
#2	.43135	.00838	.00521	.00501	.01898	.00464	.01046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2730.5	4332.4	127170.	7568.9
Stddev	1.0	2.5	111.	42.6
%RSD	.03507	.05802	.08728	.56329
#1	2731.2	4330.7	127090.	7599.0
#2	2729.8	4334.2	127250.	7538.7

Sample Name: 480-143734-F-3-A Acquired: 10/31/2018 22:27:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.16801	.08738	13.676	.28041
Stddev	.00073	.02269	.00352	.008	.00028
%RSD	517.53	13.504	4.0236	.05662	.10011

#1	-.00038	.15197	.08987	13.670	.28061
#2	.00066	.18405	.08490	13.681	.28022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	33.370	.00034	.0044	.02926
Stddev	.00003	.037	.00013	.0073	.00005
%RSD	32.468	.11086	37.358	164.5	.18473

#1	-.00010	33.344	.00025	-.0007	.02930
#2	-.00006	33.396	.00043	.0096	.02922

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19871	.02523	2.8007	F 606.44	1.7831
Stddev	.00131	.00019	.0044	.25	.0004
%RSD	.65716	.74131	.15721	.04172	.02315

#1	.19779	.02536	2.7975	606.26	1.7828
#2	.19963	.02509	2.8038	606.62	1.7834

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				540.00	
Low Limit				-.50000	

Sample Name: 480-143734-F-3-A Acquired: 10/31/2018 22:27:59 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	58.005	.08679	.01414	F 1351.1	.34838
Stddev	.063	.00008	.00013	1.7	.00055
%RSD	.10942	.09511	.93159	.12440	.15767

#1	57.960	.08673	.01405	1352.3	.34877
#2	58.050	.08685	.01424	1349.9	.34799

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01514	24.92	.00752	-.00687	12.462
Stddev	.00068	.01	.00048	.00136	.047
%RSD	4.5036	.0238	6.4130	19.832	.38083

#1	.01562	24.92	.00786	-.00591	12.428
#2	.01466	24.92	.00718	-.00784	12.496

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06951	.60717	.18735	.00311	.04365
Stddev	.00225	.00071	.00044	.00001	.00023
%RSD	3.2322	.11659	.23535	.21055	.52146

#1	.06793	.60767	.18767	.00311	.04349
#2	.07110	.60667	.18704	.00312	.04381

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143734-F-3-A Acquired: 10/31/2018 22:27:59 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.15692**
 Stddev .00183
 %RSD 1.1659

#1 **.15562**
 #2 **.15821**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2080.3	3774.1	108200.	7171.9
Stddev	.7	1.1	140.	22.3
%RSD	.03301	.02883	.12907	.31035

#1	2079.9	3774.9	108300.	7156.2
#2	2080.8	3773.4	108100.	7187.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.247%	91.491%	82.820%	90.586%
Range				

Sample Name: MB 480-441229/1-A Acquired: 10/31/2018 22:31:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.04841	.00048	.01390	.00003
Stddev	.00060	.01346	.00113	.00134	.00000
%RSD	179.75	27.806	233.90	9.6692	14.722

#1	.00009	.05793	-.00032	.01485	.00003
#2	-.00076	.03889	.00128	.01295	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.02533	.00008	.0006	-.00001
Stddev	.00001	.00316	.00000	.0154	.00008
%RSD	6.0483	12.463	2.2142	2451.	819.68

#1	-.00015	.02756	.00008	-.0102	-.00006
#2	-.00016	.02310	.00008	.0115	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.00149	.00753	F .64407	-.00063
Stddev	.00006	.00008	.00013	.03678	.00084
%RSD	24.388	5.4477	1.6902	5.7105	133.80

#1	.00028	-.00154	.00762	.61806	-.00122
#2	.00020	-.00143	.00744	.67008	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				.50000	
Low Limit				-.50000	

Sample Name: MB 480-441229/1-A Acquired: 10/31/2018 22:31:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00325	.00056	-.00023	.48860	.00006
Stddev	.00147	.00005	.00010	.01448	.00025
%RSD	45.169	8.0964	41.844	2.9644	405.96

#1	.00429	.00059	-.00030	.49884	.00024
#2	.00221	.00053	-.00016	.47835	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.0116	-.00221	.00046	.01933
Stddev	.00105	.0002	.00068	.00339	.00462
%RSD	3003.0	1.531	30.545	735.46	23.886

#1	.00071	.0117	-.00269	-.00194	.01606
#2	-.00078	.0115	-.00174	.00286	.02259

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	-.00007	-.00021	.00086	-.00019
Stddev	.00016	.00005	.00013	.00049	.00031
%RSD	18.137	74.129	61.746	57.353	165.25

#1	-.00097	-.00003	-.00012	.00121	.00003
#2	-.00075	-.00010	-.00030	.00051	-.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441229/1-A Acquired: 10/31/2018 22:31:50 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00199**
 Stddev .00025
 %RSD 12.467

#1 **.00216**
 #2 **.00181**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2742.3	4353.0	128560.	7664.1
Stddev	.5	4.0	30.	2.9
%RSD	.01685	.09167	.02309	.03741

#1	2742.0	4355.8	128540.	7666.1
#2	2742.6	4350.2	128580.	7662.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.872%	105.52%	98.408%	96.802%
Range				

Sample Name: LCS 480-441229/2-A Acquired: 10/31/2018 22:35:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04839	9.8396	.17707	.18956	.20104
Stddev	.00035	.0515	.00300	.00047	.00083
%RSD	.71402	.52363	1.6953	.24709	.41519

#1	.04863	9.8760	.17919	.18989	.20163
#2	.04814	9.8032	.17495	.18923	.20045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20783	9.7137	.18606	-.0117	.19041
Stddev	.00067	.0517	.00023	.0027	.00001
%RSD	.32435	.53201	.12604	23.18	.00690

#1	.20735	9.6771	.18589	-.0097	.19042
#2	.20831	9.7502	.18622	-.0136	.19041

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20749	.19531	10.212	10.022	.19074
Stddev	.00021	.00003	.002	.023	.00001
%RSD	.10285	.01580	.01497	.23229	.00447

#1	.20764	.19529	10.213	10.005	.19074
#2	.20734	.19533	10.211	10.038	.19075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441229/2-A Acquired: 10/31/2018 22:35:41 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9168	.20705	.17418	10.276	.21074
Stddev	.0083	.00016	.00016	.015	.00011
%RSD	.08399	.07655	.09451	.14465	.05132

#1	9.9227	.20717	.17406	10.286	.21082
#2	9.9109	.20694	.17430	10.265	.21067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18984	8.794	.18174	.18760	9.3828
Stddev	.00019	.033	.00005	.00217	.0745
%RSD	.10132	.3794	.02876	1.1564	.79446

#1	.18971	8.770	.18171	.18914	9.3301
#2	.18998	8.817	.18178	.18607	9.4355

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19056	.21347	.19925	.18715	.20907
Stddev	.00041	.00044	.00239	.00069	.00194
%RSD	.21652	.20696	1.2013	.36614	.92679

#1	.19027	.21316	.19756	.18666	.21044
#2	.19085	.21378	.20094	.18763	.20770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441229/2-A Acquired: 10/31/2018 22:35:41 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20576**
 Stddev .00078
 %RSD .37723

#1 **.20631**
 #2 **.20521**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2659.2	4285.8	125320.	7598.8
Stddev	4.6	11.5	512.	35.1
%RSD	.17400	.26945	.40889	.46181

#1	2662.5	4294.0	124960.	7623.6
#2	2655.9	4277.7	125690.	7574.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.906%	103.90%	95.930%	95.978%
Range				

Sample Name: 480-143841-B-7-B Acquired: 10/31/2018 22:39:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00089	.11161	.00668	.00903	.05107
Stddev	.00030	.01909	.00370	.00006	.00002
%RSD	34.106	17.100	55.353	.62989	.04253

#1	-.00067	.12511	.00929	.00907	.05109
#2	-.00110	.09812	.00406	.00899	.05106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	190.13	.00026	-.0244	.00056
Stddev	.00002	.03	.00005	.0163	.00002
%RSD	17.512	.01806	19.752	66.71	2.9468

#1	-.00014	190.11	.00023	-.0129	.00055
#2	-.00011	190.16	.00030	-.0359	.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00065	-.00176	.92147	1.5517	.00181
Stddev	.00030	.00049	.00256	.0173	.00047
%RSD	46.755	27.998	.27766	1.1130	25.945

#1	.00043	-.00142	.92328	1.5395	.00148
#2	.00086	-.00211	.91966	1.5640	.00214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-7-B Acquired: 10/31/2018 22:39:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.64115	.51234	.00432	10.936	.00015
Stddev	.00157	.00039	.00005	.003	.00041
%RSD	.24443	.07552	1.0536	.02414	280.97

#1	.64004	.51262	.00435	10.934	-.00014
#2	.64226	.51207	.00429	10.938	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	F 159.5	-.00315	-.00132	1.9397
Stddev	.00027	.1	.00002	.00010	.0029
%RSD	43.962	.0777	.73647	7.7194	.15061

#1	-.00081	159.6	-.00313	-.00125	1.9418
#2	-.00042	159.5	-.00317	-.00139	1.9377

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.04929	-.00046	.00064	.00050
Stddev	.00024	.00018	.00020	.00000	.00031
%RSD	176.62	.36200	44.444	.11276	62.396

#1	.00003	.04917	-.00061	.00064	.00072
#2	-.00031	.04942	-.00032	.00064	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-7-B Acquired: 10/31/2018 22:39:21 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00197**
 Stddev .00087
 %RSD 44.193

#1 **.00258**
 #2 **.00135**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2530.7	4094.9	121960.	7500.0
Stddev	3.0	.0	129.	8.8
%RSD	.11821	.00084	.10581	.11797

#1	2532.8	4094.9	121870.	7506.3
#2	2528.6	4094.9	122050.	7493.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.321%	99.267%	93.356%	94.730%
Range				

Sample Name: 480-143841-B-8-B Acquired: 10/31/2018 22:43:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00146	.86517	.00529	.00807	.07077
Stddev	.00043	.01117	.00148	.00001	.00019
%RSD	29.232	1.2907	27.894	.06322	.26793

#1	-.00116	.87306	.00425	.00807	.07090
#2	-.00177	.85727	.00634	.00807	.07063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	329.27	.01236	.8781	.20318
Stddev	.00004	.41	.00005	.0153	.00014
%RSD	10.849	.12465	.37614	1.745	.07097

#1	.00035	328.98	.01233	.8673	.20329
#2	.00030	329.56	.01239	.8889	.20308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.03023	35.230	4.0361	.00414
Stddev	.00011	.00024	.088	.0041	.00027
%RSD	20.647	.79425	.25001	.10144	6.4307

#1	-.00060	.03040	35.292	4.0390	.00433
#2	-.00045	.03006	35.167	4.0332	.00395

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-8-B Acquired: 10/31/2018 22:43:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.81195	16.187	-.00021	53.752	.00289
Stddev	.00148	.022	.00014	.353	.00059
%RSD	.18268	.13326	67.384	.65641	20.282

#1	.81090	16.202	-.00011	54.001	.00330
#2	.81300	16.172	-.00031	53.502	.00248

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01099	F 345.3	-.00404	-.00199	5.0606
Stddev	.00064	.4	.00128	.00329	.0220
%RSD	5.7811	.1052	31.690	164.84	.43446

#1	.01144	345.0	-.00313	.00033	5.0761
#2	.01055	345.6	-.00494	-.00432	5.0450

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	.62744	-.00089	-.01032	.00019
Stddev	.00103	.00161	.00031	.00001	.00015
%RSD	271.12	.25644	35.176	.13338	80.276

#1	.00035	.62858	-.00111	-.01031	.00008
#2	-.00111	.62630	-.00067	-.01033	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-8-B Acquired: 10/31/2018 22:43:09 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03749**
 Stddev .00034
 %RSD .91395

#1 **.03725**
 #2 **.03773**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2399.3	4250.6	126740.	7876.4
Stddev	3.7	7.8	431.	14.6
%RSD	.15498	.18365	.33983	.18536

#1	2402.0	4256.1	126440.	7866.0
#2	2396.7	4245.1	127050.	7886.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.632%	103.04%	97.014%	99.483%
Range				

Sample Name: 480-143841-B-9-B Acquired: 10/31/2018 22:47:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	.06992	.07364	.02152	.03158
Stddev	.00035	.01279	.00035	.00026	.00011
%RSD	43.212	18.293	.47854	1.2049	.34677

#1	-.00056	.07897	.07339	.02134	.03166
#2	-.00105	.06088	.07389	.02170	.03151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	305.61	.00020	F -.0994	.00180
Stddev	.00011	3.13	.00025	.0032	.00021
%RSD	290.28	1.0244	126.28	3.226	11.527

#1	-.00011	307.83	.00038	-.0971	.00194
#2	.00004	303.40	.00002	-.1016	.00165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				1.500	
Low Limit				-.0500	

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00160	13.407	3.8138	.00214
Stddev	.00027	.00029	.015	.0044	.00055
%RSD	217.23	18.190	.11396	.11567	25.901

#1	-.00007	-.00180	13.418	3.8107	.00175
#2	.00032	-.00139	13.396	3.8169	.00253

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-9-B Acquired: 10/31/2018 22:47:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.4245	37.296	.00511	74.126	.00002
Stddev	.0071	.092	.00016	.232	.00052
%RSD	.11011	.24733	3.2218	.31271	3186.2

#1	6.4295	37.361	.00499	74.290	.00039
#2	6.4195	37.231	.00522	73.962	-.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00293	F 267.0	-.00253	.00759	7.1715
Stddev	.00176	.1	.00138	.00195	.0414
%RSD	60.089	.0427	54.816	25.650	.57719

#1	.00169	267.1	-.00350	.00897	7.1423
#2	.00418	267.0	-.00155	.00621	7.2008

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00159	.80761	-.00081	-.01461	.00030
Stddev	.00053	.00271	.00017	.00113	.00045
%RSD	33.142	.33494	21.394	7.7178	153.87

#1	-.00196	.80953	-.00069	-.01381	-.00003
#2	-.00122	.80570	-.00093	-.01540	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-9-B Acquired: 10/31/2018 22:47:07 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00397**
 Stddev .00011
 %RSD 2.8394

#1 **.00389**
 #2 **.00405**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2396.9	3978.0	118310.	7393.9
Stddev	2.3	4.2	148.	30.7
%RSD	.09724	.10454	.12480	.41490

#1	2395.3	3975.0	118420.	7372.2
#2	2398.6	3980.9	118210.	7415.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	85.546%	96.433%	90.563%	93.390%
Range				

Sample Name: 480-143841-B-10-A Acquired: 10/31/2018 22:51:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.02298	-.00101	.01389	.01940
Stddev	.00006	.00353	.00081	.00063	.00003
%RSD	536.56	15.348	79.913	4.5415	.15485

#1	-.00003	.02547	-.00158	.01433	.01943
#2	.00006	.02048	-.00044	.01344	.01938

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	14.127	.00036	-.0191	.00143
Stddev	.00002	.042	.00017	.0069	.00002
%RSD	39.851	.30019	46.328	36.20	1.0979

#1	-.00008	14.157	.00024	-.0142	.00144
#2	-.00004	14.097	.00048	-.0239	.00142

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00301	.07988	3.0165	.00355
Stddev	.00007	.00045	.00068	.0133	.00039
%RSD	51.056	15.038	.85483	.44110	10.852

#1	.00018	.00269	.08036	3.0259	.00382
#2	.00009	.00333	.07940	3.0071	.00328

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-10-A Acquired: 10/31/2018 22:51:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.4607	.38226	-.00033	42.084	.00334
Stddev	.0037	.00098	.00007	.285	.00028
%RSD	.15205	.25530	21.686	.67799	8.4523

#1	2.4581	.38295	-.00038	42.286	.00354
#2	2.4634	.38157	-.00028	41.882	.00314

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00259	4.795	-.00154	-.00133	5.7091
Stddev	.00036	.022	.00065	.00298	.0160
%RSD	13.815	.4505	42.408	223.78	.28051

#1	.00234	4.811	-.00108	.00078	5.7204
#2	.00285	4.780	-.00200	-.00344	5.6978

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.21493	-.00034	.00112	-.00034
Stddev	.00010	.00158	.00013	.00007	.00013
%RSD	30.928	.73594	39.469	6.3722	38.178

#1	-.00039	.21604	-.00043	.00107	-.00025
#2	-.00025	.21381	-.00024	.00117	-.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-10-A Acquired: 10/31/2018 22:51:06 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01428**
 Stddev .00001
 %RSD .06253

#1 **.01428**
 #2 **.01427**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2650.6	4226.7	125380.	7621.8
Stddev	1.6	9.4	328.	36.4
%RSD	.06061	.22345	.26162	.47745

#1	2649.5	4220.0	125150.	7596.1
#2	2651.7	4233.4	125620.	7647.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.599%	102.46%	95.975%	96.269%
Range				

Sample Name: 143841-B-10-Asd@5 Acquired: 10/31/2018 22:54:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00878	.00143	.00434	.00398
Stddev	.00038	.00704	.00026	.00012	.00002
%RSD	168.92	80.111	18.133	2.8018	.45566

#1	-.00049	.00381	.00125	.00442	.00399
#2	.00004	.01376	.00161	.00425	.00396

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	2.8831	.00004	.0142	.00029
Stddev	.00005	.0016	.00000	.0176	.00005
%RSD	50.022	.05629	7.6639	123.6	17.074

#1	-.00013	2.8842	.00004	.0266	.00026
#2	-.00006	2.8819	.00004	.0018	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.00083	.01618	.61464	.00092
Stddev	.00007	.00002	.00065	.04057	.00036
%RSD	33.904	2.6647	4.0189	6.6008	39.573

#1	-.00016	-.00081	.01573	.58595	.00117
#2	-.00025	-.00084	.01664	.64333	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-B-10-Asd@5 Acquired: 10/31/2018 22:54:54 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49766	.07852	-.00030	8.3743	.00064
Stddev	.00283	.00012	.00003	.0305	.00016
%RSD	.56787	.15508	10.535	.36423	25.635

#1	.49966	.07843	-.00027	8.3527	.00075
#2	.49566	.07860	-.00032	8.3959	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00120	.9707	-.00175	.00101	1.1010
Stddev	.00037	.0015	.00094	.00147	.0078
%RSD	31.068	.1558	53.994	146.22	.70935

#1	.00147	.9718	-.00108	-.00003	1.0955
#2	.00094	.9697	-.00242	.00205	1.1065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	.04362	-.00018	.00121	-.00027
Stddev	.00080	.00023	.00019	.00070	.00021
%RSD	172.93	.51939	105.10	57.821	79.264

#1	-.00103	.04346	-.00005	.00071	-.00042
#2	.00010	.04379	-.00031	.00170	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-B-10-Asd@5 Acquired: 10/31/2018 22:54:54 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00315**
 Stddev .00019
 %RSD 6.0150

#1 **.00302**
 #2 **.00329**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2729.1	4298.3	126020.	7556.7
Stddev	1.8	3.1	43.	36.3
%RSD	.06425	.07264	.03375	.47976

#1	2727.8	4296.1	125990.	7582.4
#2	2730.3	4300.5	126050.	7531.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.400%	104.20%	96.465%	95.446%
Range				

Sample Name: 480-143841-B-10-Apds Acquired: 10/31/2018 22:58:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05144	9.9830	.18970	.20017	.22076
Stddev	.00005	.0253	.00247	.00105	.00060
%RSD	.10347	.25314	1.3002	.52667	.27390

#1	.05148	9.9651	.18795	.19943	.22119
#2	.05141	10.001	.19144	.20092	.22034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21417	23.621	.19421	-.0150	.19934
Stddev	.00017	.026	.00101	.0040	.00052
%RSD	.07715	.10814	.51852	26.39	.26230

#1	.21429	23.603	.19350	-.0122	.19897
#2	.21405	23.640	.19492	-.0178	.19971

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21029	.20567	10.459	13.114	.20092
Stddev	.00017	.00009	.026	.049	.00064
%RSD	.07870	.04521	.24906	.37694	.31655

#1	.21041	.20560	10.478	13.079	.20137
#2	.21017	.20573	10.441	13.149	.20047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-10-Apds Acquired: 10/31/2018 22:58:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.508	.57888	.18227	50.607	.22123
Stddev	.014	.00037	.00090	.086	.00102
%RSD	.11424	.06373	.49484	.17074	.45986

#1	12.498	.57914	.18163	50.669	.22051
#2	12.518	.57862	.18290	50.546	.22195

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19909	13.93	.18808	.19412	15.295
Stddev	.00038	.02	.00095	.00184	.008
%RSD	.18965	.1210	.50619	.94992	.05161

#1	.19936	13.92	.18741	.19543	15.290
#2	.19883	13.94	.18876	.19282	15.301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20185	.42405	.20403	.19644	.21314
Stddev	.00120	.00046	.00031	.00011	.00035
%RSD	.59206	.10869	.15157	.05515	.16358

#1	.20101	.42372	.20425	.19651	.21339
#2	.20270	.42438	.20381	.19636	.21290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-10-Apds Acquired: 10/31/2018 22:58:43 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22130**
 Stddev .00047
 %RSD .21173

#1 **.22097**
 #2 **.22163**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2590.8	4208.7	124150.	7606.8
Stddev	7.8	14.9	59.	18.6
%RSD	.30139	.35449	.04731	.24452

#1	2596.3	4219.2	124100.	7620.0
#2	2585.3	4198.1	124190.	7593.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.466%	102.02%	95.028%	96.079%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 23:02:24 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51223	24.837	F .44738	F .44464	.50878	.50836	24.876
Stddev	.00142	.075	.00262	.00176	.00380	.00137	.030
%RSD	.27699	.30342	.58594	.39631	.74633	.26881	.12110

#1	.51324	24.784	.44923	.44589	.51146	.50932	24.898
#2	.51123	24.890	.44553	.44340	.50609	.50739	24.855

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46537	-.0243	.49414	.52584	.51065	25.543	25.677
Stddev	.00074	.0138	.00053	.00233	.00059	.064	.074
%RSD	.15907	56.87	.10732	.44356	.11604	.25028	.28662

#1	.46589	-.0341	.49451	.52749	.51023	25.588	25.625
#2	.46484	-.0145	.49376	.52419	.51107	25.498	25.729

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49521	24.825	.53711	.45655	26.320	.52096	.48644
Stddev	.00309	.050	.00027	.00094	.022	.00064	.00187
%RSD	.62469	.20136	.05080	.20525	.08193	.12253	.38479

#1	.49303	24.861	.53730	.45721	26.305	.52141	.48777
#2	.49740	24.790	.53691	.45589	26.335	.52051	.48512

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 23:02:24 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.77	.46481	.47488	24.265	.50264	.54791	.51223
Stddev	.06	.00006	.00177	.104	.00238	.00103	.00138
%RSD	.2728	.01375	.37349	.43032	.47385	.18716	.26937

#1	22.81	.46477	.47614	24.191	.50433	.54719	.51320
#2	22.72	.46486	.47363	24.339	.50096	.54864	.51125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47532	.53035	.49728
Stddev	.00283	.00126	.00076
%RSD	.59580	.23680	.15314

#1	.47732	.52946	.49674
#2	.47332	.53123	.49782

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2557.6	4160.1	122740.	7481.2
Stddev	.5	.9	215.	21.0
%RSD	.01946	.02188	.17550	.28095

#1	2557.2	4159.5	122890.	7466.4
#2	2557.9	4160.8	122590.	7496.1

Sample Name: CCB-4957862 Acquired: 10/31/2018 23:06:07 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	-.01189	.00197	.00156	.00001	-.00012	.00834	.00003
Stddev	.00008	.01821	.00268	.00027	.00000	.00005	.00071	.00001
%RSD	34.859	153.18	135.80	17.527	59.971	40.239	8.5129	31.881

#1	-.00028	.00099	.00387	.00137	.00000	-.00009	.00884	.00003
#2	-.00017	-.02476	.00008	.00176	.00001	-.00016	.00783	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0094	.00010	.00021	-.00163	-.00286	.03071	.00028	-.00211
Stddev	.0008	.00000	.00021	.00002	.00236	.01780	.00006	.00159
%RSD	8.467	4.7186	96.740	1.2183	82.577	57.965	19.699	75.053

#1	.0099	.00010	.00036	-.00164	-.00453	.01812	.00032	-.00323
#2	.0088	.00009	.00007	-.00162	-.00119	.04330	.00024	-.00099

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00028	.07269	-.00001	.00133	.0154	-.00156	-.00155
Stddev	.00002	.00006	.00175	.00016	.00053	.0017	.00035	.00136
%RSD	9.1235	20.069	2.4127	2690.5	39.340	10.82	22.544	87.511

#1	.00015	.00024	.07393	.00011	.00096	.0166	-.00132	-.00251
#2	.00018	.00032	.07145	-.00012	.00171	.0142	-.00181	-.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 23:06:07 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04289	-.00030	-.00008	-.00017	.00086	-.00068	.00080
Stddev	.00222	.00002	.00012	.00031	.00051	.00003	.00062
%RSD	5.1764	6.3931	162.46	181.15	59.201	4.3768	76.757

#1	-.04132	-.00029	.00001	.00005	.00050	-.00066	.00037
#2	-.04446	-.00032	-.00016	-.00039	.00122	-.00070	.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2737.7	4309.2	126970.	7563.8
Stddev	.1	1.7	246.	13.8
%RSD	.00259	.03893	.19374	.18293

#1	2737.7	4310.4	127150.	7554.0
#2	2737.6	4308.0	126800.	7573.6

Sample Name: CCVL-4970377 Acquired: 10/31/2018 23:09:59 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00542	.19745	.01379	.01845	.00205	.00188	.51487	.00204
Stddev	.00020	.02315	.00198	.00012	.00002	.00005	.00137	.00007
%RSD	3.7767	11.727	14.353	.63745	1.2169	2.7975	.26684	3.4309
#1	.00528	.18107	.01239	.01853	.00207	.00184	.51585	.00209
#2	.00557	.21382	.01519	.01836	.00203	.00191	.51390	.00199

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0060	.00387	.00413	.00814	.05336	.46742	.02802	.20247
Stddev	.0292	.00008	.00014	.00006	.00159	.01878	.00088	.00209
%RSD	484.5	2.0308	3.3985	.77694	2.9876	4.0168	3.1394	1.0326
#1	-.0267	.00393	.00403	.00818	.05223	.45414	.02740	.20100
#2	.0146	.00382	.00423	.00809	.05448	.48070	.02865	.20395

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00329	.00857	1.0442	.01030	.00953	.1881	.01556	.01914
Stddev	.00005	.00023	.0057	.00002	.00008	.0039	.00013	.00069
%RSD	1.3985	2.7015	.54695	.14903	.85161	2.068	.82457	3.6177
#1	.00325	.00841	1.0401	.01031	.00947	.1854	.01547	.01963
#2	.00332	.00873	1.0482	.01029	.00959	.1909	.01565	.01865

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 23:09:59 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42038	.00910	.00519	.00452	.01966	.00505	.01047
Stddev	.01190	.00040	.00004	.00017	.00074	.00028	.00001
%RSD	2.8307	4.3941	.86583	3.8591	3.7858	5.6340	.12168

#1	.41196	.00882	.00516	.00440	.01913	.00525	.01048
#2	.42879	.00939	.00522	.00465	.02018	.00485	.01046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2738.4	4333.2	126990.	7592.2
Stddev	1.2	2.9	16.	24.2
%RSD	.04360	.06774	.01270	.31877

#1	2737.6	4335.3	127000.	7575.1
#2	2739.3	4331.1	126970.	7609.3

Sample Name: 480-143841-B-10-B MS Acquired: 10/31/2018 23:13:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04925	9.9276	.18435	.19533	.22008
Stddev	.00021	.0134	.00370	.00043	.00001
%RSD	.43365	.13502	2.0095	.21974	.00463

#1	.04910	9.9371	.18173	.19564	.22008
#2	.04940	9.9182	.18697	.19503	.22007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21008	23.959	.18888	-.0234	.19471
Stddev	.00005	.041	.00033	.0081	.00044
%RSD	.02427	.17290	.17546	34.64	.22370

#1	.21005	23.988	.18865	-.0291	.19502
#2	.21012	23.929	.18912	-.0177	.19440

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20571	.20131	10.238	13.088	.19865
Stddev	.00083	.00029	.002	.008	.00057
%RSD	.40167	.14186	.02207	.05916	.28839

#1	.20512	.20151	10.240	13.083	.19824
#2	.20629	.20111	10.237	13.093	.19905

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-10-B MS Acquired: 10/31/2018 23:13:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.352	.58784	.17757	52.302	.21858
Stddev	.021	.00141	.00069	.349	.00055
%RSD	.17020	.23922	.38903	.66779	.25190

#1	12.337	.58684	.17708	52.549	.21819
#2	12.367	.58883	.17806	52.055	.21897

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19481	13.89	.18241	.18977	15.154
Stddev	.00023	.00	.00024	.00007	.026
%RSD	.11929	.0312	.13172	.03907	.17119

#1	.19498	13.89	.18258	.18972	15.172
#2	.19465	13.89	.18224	.18982	15.136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19658	.42985	.20007	.19146	.20952
Stddev	.00127	.00036	.00004	.00150	.00028
%RSD	.64626	.08468	.01979	.78254	.13373

#1	.19568	.43010	.20010	.19252	.20932
#2	.19748	.42959	.20004	.19040	.20972

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-10-B MS Acquired: 10/31/2018 23:13:50 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21886**
 Stddev .00151
 %RSD .68885

#1 **.21780**
 #2 **.21993**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2584.7	4205.1	123710.	7569.1
Stddev	2.7	7.9	91.	5.9
%RSD	.10305	.18864	.07323	.07808

#1	2586.6	4210.7	123770.	7564.9
#2	2582.8	4199.5	123650.	7573.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.246%	101.94%	94.695%	95.602%
Range				

Sample Name: 143841-B-10-C MSd Acquired: 10/31/2018 23:17:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04801	9.5746	.18252	.19219	.21498
Stddev	.00016	.0052	.00181	.00114	.00092
%RSD	.34249	.05408	.99149	.59217	.42879

#1	.04813	9.5709	.18124	.19300	.21433
#2	.04790	9.5782	.18380	.19139	.21563

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20545	23.731	.18574	.0068	.19059
Stddev	.00043	.073	.00003	.0239	.00007
%RSD	.20773	.30969	.01689	352.5	.03797

#1	.20576	23.783	.18576	.0237	.19054
#2	.20515	23.679	.18572	-.0101	.19065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20177	.19693	9.9889	12.884	.19407
Stddev	.00023	.00099	.0579	.062	.00046
%RSD	.11268	.50105	.57955	.47878	.23581

#1	.20193	.19623	10.030	12.928	.19375
#2	.20161	.19763	9.9479	12.841	.19439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-B-10-C MSd Acquired: 10/31/2018 23:17:29 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.163	.58344	.17485	51.743	.21143
Stddev	.020	.00031	.00015	.040	.00040
%RSD	.16097	.05303	.08517	.07798	.19129

#1	12.176	.58366	.17475	51.714	.21114
#2	12.149	.58322	.17496	51.771	.21171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19017	13.73	.17933	.18617	14.932
Stddev	.00103	.02	.00016	.00092	.027
%RSD	.53964	.1135	.08887	.49202	.17855

#1	.18944	13.72	.17921	.18552	14.951
#2	.19089	13.74	.17944	.18681	14.913

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19334	.42355	.19601	.18533	.20339
Stddev	.00028	.00157	.00015	.00012	.00105
%RSD	.14686	.37021	.07438	.06547	.51670

#1	.19354	.42466	.19591	.18541	.20265
#2	.19314	.42244	.19611	.18524	.20413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-B-10-C MSd Acquired: 10/31/2018 23:17:29 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21471**
 Stddev .00161
 %RSD .75115

#1 **.21585**
 #2 **.21357**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2585.9	4192.5	123860.	7641.8
Stddev	2.2	4.4	175.	5.0
%RSD	.08560	.10418	.14114	.06483

#1	2587.5	4195.6	123990.	7638.3
#2	2584.3	4189.4	123740.	7645.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.290%	101.63%	94.810%	96.521%
Range				

Sample Name: 480-143841-B-11-B Acquired: 10/31/2018 23:21:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.38156	.00301	.00283	.03153
Stddev	.00014	.00762	.00303	.00035	.00008
%RSD	71.475	1.9982	100.65	12.217	.24555

#1	-.00029	.38695	.00087	.00308	.03158
#2	-.00009	.37617	.00515	.00259	.03147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	123.31	.00016	-.0289	-.00020
Stddev	.00001	.07	.00004	.0137	.00003
%RSD	11.127	.05864	23.318	47.32	17.295

#1	-.00012	123.36	.00019	-.0386	-.00023
#2	-.00011	123.26	.00014	-.0192	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	-.00146	.53563	.53127	.00150
Stddev	.00006	.00081	.00182	.00187	.00102
%RSD	24.981	55.273	.34036	.35130	67.465

#1	.00021	-.00203	.53692	.52995	.00079
#2	.00029	-.00089	.53434	.53259	.00222

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-11-B Acquired: 10/31/2018 23:21:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04777	.37562	.00694	36.959	-.00030
Stddev	.00391	.00094	.00003	.120	.00025
%RSD	8.1885	.24894	.48404	.32459	84.169

#1	.05053	.37628	.00697	36.874	-.00047
#2	.04500	.37495	.00692	37.043	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00149	F 90.10	-.00099	-.00079	.54883
Stddev	.00059	.20	.00136	.00093	.01871
%RSD	39.731	.2248	137.51	118.45	3.4096

#1	.00107	89.96	-.00195	-.00144	.56206
#2	.00191	90.25	-.00003	-.00013	.53560

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00100	.02967	-.00073	.00145	-.00013
Stddev	.00019	.00010	.00023	.00156	.00021
%RSD	18.664	.33317	31.455	107.93	165.58

#1	-.00114	.02960	-.00056	.00034	-.00028
#2	-.00087	.02974	-.00089	.00256	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-11-B Acquired: 10/31/2018 23:21:08 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00288**
 Stddev .00047
 %RSD 16.302

#1 **.00321**
 #2 **.00255**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2555.9	4133.6	122030.	7517.9
Stddev	1.7	10.6	34.	1.4
%RSD	.06799	.25728	.02758	.01926

#1	2557.1	4141.1	122000.	7516.9
#2	2554.7	4126.1	122050.	7518.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.220%	100.21%	93.406%	94.955%
Range				

Sample Name: 480-143841-B-12-B Acquired: 10/31/2018 23:24:56 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.99967	.04930	.00754	.16740
Stddev	.00009	.00520	.00060	.00000	.00040
%RSD	16.184	.52026	1.2082	.06112	.24046

#1	-.00061	1.0033	.04888	.00755	.16712
#2	-.00048	.99599	.04972	.00754	.16769

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	89.501	.00045	.0774	.08888
Stddev	.00002	.040	.00007	.0246	.00028
%RSD	5.8356	.04435	15.607	31.77	.31041

#1	.00030	89.473	.00040	.0600	.08907
#2	.00028	89.529	.00050	.0947	.08868

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.00114	11.562	1.9547	.00169
Stddev	.00012	.00013	.002	.0295	.00036
%RSD	39.667	11.146	.01603	1.5084	21.458

#1	.00040	-.00105	11.560	1.9339	.00144
#2	.00023	-.00123	11.563	1.9756	.00195

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-12-B Acquired: 10/31/2018 23:24:56 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9846	3.7934	-.00032	69.301	.00429
Stddev	.0022	.0019	.00018	.136	.00035
%RSD	.10963	.05049	58.463	.19607	8.1265

#1	1.9862	3.7948	-.00045	69.397	.00404
#2	1.9831	3.7921	-.00019	69.204	.00453

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	81.39	-.00229	-.00169	5.3146
Stddev	.00083	.12	.00149	.00151	.0111
%RSD	182.46	.1486	65.128	89.419	.20924

#1	.00104	81.48	-.00124	-.00062	5.3067
#2	-.00013	81.31	-.00335	-.00276	5.3224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00092	.08615	-.00027	-.00066	.00028
Stddev	.00039	.00021	.00044	.00094	.00014
%RSD	43.004	.24879	162.47	142.36	50.426

#1	-.00119	.08630	.00004	-.00133	.00018
#2	-.00064	.08600	-.00059	.00000	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-12-B Acquired: 10/31/2018 23:24:56 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.08553**
 Stddev .00068
 %RSD .79773

#1 **.08601**
 #2 **.08505**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2549.4	4136.2	123110.	7542.7
Stddev	2.9	4.7	66.	17.3
%RSD	.11223	.11322	.05401	.22871

#1	2551.5	4139.5	123160.	7530.5
#2	2547.4	4132.9	123060.	7554.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.989%	100.27%	94.234%	95.269%
Range				

Sample Name: 480-143841-B-13-A Acquired: 10/31/2018 23:28:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	-.00171	.00219	.00020	.00005
Stddev	.00043	.00509	.00030	.00029	.00000
%RSD	247.42	297.85	13.841	143.62	.28621

#1	-.00048	-.00531	.00198	.00040	.00005
#2	.00013	.00189	.00240	-.00000	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.01700	.00007	-.0100	-.00004
Stddev	.00004	.00286	.00002	.0087	.00004
%RSD	37.989	16.825	32.924	86.73	108.82

#1	-.00013	.01498	.00005	-.0039	-.00001
#2	-.00007	.01903	.00009	-.0161	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00141	.00530	-.01192	.00007
Stddev	.00007	.00008	.00042	.03890	.00015
%RSD	45.574	5.4829	7.9858	326.23	216.59

#1	.00020	-.00136	.00500	-.03943	-.00004
#2	.00010	-.00147	.00559	.01558	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-13-A Acquired: 10/31/2018 23:28:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00177	.00023	-.00033	.05288	-.00000
Stddev	.00021	.00002	.00003	.00460	.00006
%RSD	11.595	7.7978	8.5602	8.6901	9838.1

#1	-.00163	.00021	-.00035	.05613	-.00004
#2	-.00192	.00024	-.00031	.04963	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	.0173	-.00134	.00046	-.05371
Stddev	.00003	.0004	.00086	.00162	.01431
%RSD	7.8905	2.564	64.404	349.92	26.643

#1	-.00047	.0177	-.00195	-.00068	-.06382
#2	-.00042	.0170	-.00073	.00161	-.04359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	-.00014	-.00015	-.00002	-.00014
Stddev	.00004	.00002	.00007	.00088	.00002
%RSD	6.8644	14.541	49.832	4121.0	15.043

#1	-.00054	-.00015	-.00020	.00060	-.00016
#2	-.00059	-.00012	-.00009	-.00065	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-B-13-A Acquired: 10/31/2018 23:28:42 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00306**
 Stddev .00064
 %RSD 20.978

#1 **.00261**
 #2 **.00351**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2737.9	4324.8	128220.	7700.6
Stddev	1.0	.8	784.	22.9
%RSD	.03630	.01796	.61115	.29769

#1	2737.2	4324.2	128780.	7716.8
#2	2738.6	4325.3	127670.	7684.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.714%	104.84%	98.149%	97.263%
Range				

Sample Name: 480-143880-B-2-A Acquired: 10/31/2018 23:32:34 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	.02136	.00147	.74460	.02112
Stddev	.00015	.00347	.00170	.00059	.00002
%RSD	38.243	16.227	116.14	.07876	.08902

#1	-.00029	.02381	.00026	.74419	.02111
#2	-.00051	.01891	.00267	.74502	.02114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	71.693	.00018	-.0032	-.00006
Stddev	.00002	.250	.00011	.0337	.00028
%RSD	18.860	.34932	61.372	1052.	431.47

#1	-.00014	71.870	.00026	-.0270	-.00026
#2	-.00011	71.516	.00010	.0206	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	-.00132	.42112	2.5348	.01446
Stddev	.00028	.00012	.00720	.0016	.00081
%RSD	52.190	9.2732	1.7093	.06353	5.6096

#1	.00074	-.00123	.42621	2.5337	.01503
#2	.00034	-.00141	.41603	2.5360	.01388

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-2-A Acquired: 10/31/2018 23:32:34 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	31.481	.03151	.03077	164.07	-.00001
Stddev	.037	.00014	.00009	1.16	.00012
%RSD	.11632	.43761	.30537	.70754	1539.1

#1	31.455	.03142	.03084	164.89	-.00009
#2	31.507	.03161	.03071	163.25	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00064	F 160.3	-.00157	-.00361	5.5204
Stddev	.00081	.1	.00049	.00243	.0445
%RSD	127.04	.0386	30.926	67.267	.80655

#1	.00121	160.3	-.00192	-.00533	5.5518
#2	.00007	160.2	-.00123	-.00189	5.4889

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00128	4.7733	-.00011	.00233	-.00018
Stddev	.00142	.0285	.00020	.00022	.00020
%RSD	111.09	.59769	184.80	9.4204	112.38

#1	-.00229	4.7935	-.00025	.00218	-.00032
#2	-.00027	4.7531	.00003	.00249	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-2-A Acquired: 10/31/2018 23:32:34 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00464**
 Stddev .00003
 %RSD .62208

#1 **.00466**
 #2 **.00462**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2459.0	4080.5	120670.	7482.4
Stddev	.6	2.1	4.	41.4
%RSD	.02383	.05230	.00333	.55395

#1	2458.6	4079.0	120680.	7453.1
#2	2459.4	4082.0	120670.	7511.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.762%	98.919%	92.370%	94.507%
Range				

Sample Name: 480-143880-B-3-A Acquired: 10/31/2018 23:36:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.08149	-.00078	.63610	.04866
Stddev	.00015	.00818	.00016	.00105	.00023
%RSD	532.38	10.037	20.971	.16463	.47723

#1	-.00013	.08727	-.00089	.63536	.04882
#2	.00008	.07570	-.00066	.63684	.04849

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	88.496	.00020	.0316	.00014
Stddev	.00006	.142	.00003	.0103	.00006
%RSD	45.092	.15993	16.740	32.61	44.685

#1	-.00008	88.396	.00018	.0243	.00018
#2	-.00016	88.596	.00022	.0389	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00116	-.00099	.07062	2.3162	.01060
Stddev	.00035	.00020	.00291	.0028	.00064
%RSD	30.370	20.271	4.1153	.12244	6.0452

#1	.00141	-.00085	.07267	2.3142	.01106
#2	.00091	-.00114	.06856	2.3182	.01015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-3-A Acquired: 10/31/2018 23:36:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.366	.02418	.01268	105.15	.00138
Stddev	.031	.00017	.00002	.03	.00014
%RSD	.10953	.71521	.16189	.03277	9.9264

#1	28.388	.02430	.01270	105.17	.00148
#2	28.344	.02406	.01267	105.12	.00128

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00122	F 93.22	-.00123	-.00468	5.8899
Stddev	.00145	.02	.00089	.00069	.0071
%RSD	118.80	.0226	72.982	14.666	.12063

#1	-.00225	93.21	-.00059	-.00517	5.8849
#2	-.00020	93.24	-.00186	-.00420	5.8949

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00119	2.1818	.00097	.00100	-.00024
Stddev	.00153	.0071	.00002	.00058	.00014
%RSD	128.34	.32601	2.4078	58.062	55.694

#1	-.00227	2.1768	.00095	.00141	-.00034
#2	-.00011	2.1868	.00098	.00059	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-3-A Acquired: 10/31/2018 23:36:27 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00281**
 Stddev .00094
 %RSD 33.243

#1 **.00348**
 #2 **.00215**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2495.6	4098.0	121250.	7517.9
Stddev	2.8	2.6	628.	5.7
%RSD	.11231	.06291	.51771	.07560

#1	2493.6	4096.1	120800.	7522.0
#2	2497.5	4099.8	121690.	7513.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.066%	99.342%	92.809%	94.956%
Range				

Sample Name: 480-143880-B-4-A Acquired: 10/31/2018 23:40:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.22812	.00398	1.1897	.04410
Stddev	.00048	.00750	.00097	.0033	.00016
%RSD	264.15	3.2895	24.388	.27491	.36381

#1	-.00052	.23343	.00467	1.1920	.04398
#2	.00016	.22281	.00330	1.1874	.04421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	10.120	.00001	-.0098	.00002
Stddev	.00002	.046	.00005	.0030	.00007
%RSD	22.237	.45025	371.84	30.50	295.67

#1	-.00008	10.088	-.00002	-.0119	.00007
#2	-.00011	10.152	.00005	-.0077	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	-.00124	.30525	1.3709	.00783
Stddev	.00012	.00032	.00104	.0278	.00034
%RSD	24.505	25.837	.34195	2.0243	4.3579

#1	.00041	-.00102	.30598	1.3513	.00808
#2	.00058	-.00147	.30451	1.3905	.00759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-4-A Acquired: 10/31/2018 23:40:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.1694	.00973	.14192	130.25	.00012
Stddev	.0001	.00004	.00026	.12	.00015
%RSD	.00280	.37258	.18008	.09317	122.09

#1	4.1695	.00976	.14174	130.16	.00023
#2	4.1693	.00971	.14210	130.33	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00112	.1176	-.00248	-.00181	5.6298
Stddev	.00029	.0002	.00105	.00171	.0212
%RSD	25.855	.1811	42.205	94.227	.37735

#1	.00091	.1177	-.00174	-.00060	5.6148
#2	.00132	.1174	-.00323	-.00302	5.6448

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00074	.44538	.00285	-.00022	-.00022
Stddev	.00012	.00102	.00013	.00005	.00013
%RSD	15.656	.22918	4.5185	22.023	58.163

#1	.00082	.44466	.00294	-.00019	-.00013
#2	.00066	.44610	.00276	-.00026	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-4-A Acquired: 10/31/2018 23:40:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00434
Stddev .00040
%RSD 9.1730

#1 .00463
#2 .00406

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2550.0	4199.8	122540.	7568.2
Stddev	4.9	10.5	22.	13.7
%RSD	.19198	.24976	.01796	.18068

#1	2546.6	4192.4	122560.	7577.9
#2	2553.5	4207.2	122530.	7558.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.010%	101.81%	93.800%	95.591%
Range				

Sample Name: 480-143880-C-5-A Acquired: 10/31/2018 23:44:02 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.01051	.00049	.67163	.05514
Stddev	.00013	.00707	.00000	.00137	.00001
%RSD	47.270	67.227	.00563	.20471	.01803

#1	-.00038	.01551	.00049	.67260	.05515
#2	-.00019	.00551	.00049	.67065	.05514

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	14.062	.00003	-.0299	-.00021
Stddev	.00002	.049	.00004	.0186	.00008
%RSD	18.194	.34891	114.33	62.26	37.894

#1	-.00009	14.027	.00001	-.0167	-.00015
#2	-.00011	14.097	.00006	-.0430	-.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00162	.06862	1.0793	.00581
Stddev	.00006	.00006	.00214	.0134	.00034
%RSD	73.754	3.4251	3.1129	1.2369	5.8600

#1	.00004	-.00166	.07013	1.0698	.00605
#2	.00011	-.00158	.06711	1.0887	.00557

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-5-A Acquired: 10/31/2018 23:44:02 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.1854	.01353	.18347	65.761	.00014
Stddev	.0164	.00018	.00003	.285	.00019
%RSD	.31622	1.3073	.01838	.43305	134.03

#1	5.1738	.01340	.18349	65.560	.00027
#2	5.1970	.01365	.18345	65.963	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.1407	-.00179	-.00502	5.6401
Stddev	.00085	.0022	.00127	.00110	.0356
%RSD	136.86	1.549	70.857	21.901	.63052

#1	.00002	.1392	-.00269	-.00425	5.6149
#2	.00122	.1422	-.00089	-.00580	5.6652

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	.54542	.00014	.00026	-.00055
Stddev	.00123	.00146	.00004	.00098	.00020
%RSD	151.41	.26805	26.058	380.96	36.638

#1	.00006	.54439	.00012	.00095	-.00041
#2	-.00169	.54645	.00017	-.00044	-.00069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-5-A Acquired: 10/31/2018 23:44:02 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00250**
 Stddev .00116
 %RSD 46.518

#1 **.00168**
 #2 **.00332**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2597.5	4209.9	123540.	7575.9
Stddev	1.4	2.9	336.	39.0
%RSD	.05353	.06950	.27199	.51474

#1	2598.5	4207.8	123780.	7603.4
#2	2596.5	4211.9	123300.	7548.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.704%	102.05%	94.563%	95.688%
Range				

Sample Name: CCV-4954075 Acquired: 10/31/2018 23:47:51 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51372	25.013	.45037	F .44641	.51435	.50931	24.980
Stddev	.00024	.070	.00175	.00009	.00087	.00020	.001
%RSD	.04583	.28055	.38896	.02115	.16971	.03839	.00315

#1	.51388	24.963	.45161	.44648	.51373	.50917	24.981
#2	.51355	25.062	.44913	.44634	.51496	.50945	24.980

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46794	-.0335	.49558	.52927	.51170	25.677	25.652
Stddev	.00082	.0367	.00066	.00018	.00080	.021	.038
%RSD	.17509	109.3	.13305	.03391	.15545	.08038	.14725

#1	.46736	-.0595	.49511	.52940	.51226	25.692	25.625
#2	.46852	-.0076	.49605	.52915	.51114	25.662	25.679

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49701	24.901	.53880	.45870	26.411	.52289	.48619
Stddev	.00055	.042	.00003	.00041	.008	.00069	.00159
%RSD	.11110	.16686	.00603	.08912	.03043	.13225	.32763

#1	.49740	24.931	.53882	.45841	26.417	.52240	.48506
#2	.49662	24.872	.53878	.45899	26.406	.52338	.48732

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 10/31/2018 23:47:51 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.84	.46618	.47707	24.369	.50519	.54847	.51233
Stddev	.01	.00124	.00262	.045	.00243	.00017	.00011
%RSD	.0547	.26568	.54941	.18553	.48090	.03142	.02177

#1	22.83	.46706	.47892	24.337	.50347	.54835	.51225
#2	22.84	.46531	.47521	24.400	.50691	.54860	.51240

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47535	.53548	.49741
Stddev	.00146	.00045	.00378
%RSD	.30610	.08371	.75900

#1	.47432	.53580	.50008
#2	.47638	.53517	.49474

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2550.3	4145.5	121930.	7403.7
Stddev	.1	.8	299.	18.9
%RSD	.00232	.02034	.24542	.25557

#1	2550.4	4144.9	122140.	7417.1
#2	2550.3	4146.1	121720.	7390.3

Sample Name: CCB-4957862 Acquired: 10/31/2018 23:51:33 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00941	.00071	.00048	.00000	-.00008	.00752	.00011
Stddev	.00019	.01744	.00076	.00023	.00001	.00007	.00019	.00007
%RSD	332.39	185.29	105.82	48.106	860.26	88.822	2.5189	68.390

#1	.00008	.02174	.00018	.00065	-.00001	-.00003	.00739	.00016
#2	-.00019	-.00292	.00125	.00032	.00001	-.00013	.00765	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085	.00015	.00043	-.00182	-.00012	.01917	.00119	-.00294
Stddev	.0261	.00004	.00024	.00014	.00088	.01920	.00022	.00333
%RSD	307.9	24.196	55.332	7.9144	723.97	100.17	18.464	113.34

#1	-.0100	.00018	.00059	-.00172	.00050	.03275	.00135	-.00058
#2	.0269	.00013	.00026	-.00192	-.00074	.00559	.00104	-.00529

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00035	.06800	.00006	.00094	.0158	-.00198	-.00210
Stddev	.00001	.00026	.00243	.00024	.00010	.0013	.00005	.00357
%RSD	12.347	72.899	3.5777	373.44	10.177	8.358	2.4339	169.59

#1	.00006	.00053	.06972	.00023	.00101	.0168	-.00195	.00042
#2	.00007	.00017	.06628	-.00010	.00088	.0149	-.00202	-.00463

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 10/31/2018 23:51:33 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04020	-.00048	-.00019	.00004	.00083	-.00011	.00040
Stddev	.01033	.00021	.00004	.00038	.00017	.00018	.00057
%RSD	25.709	43.864	19.653	991.91	20.083	166.36	141.67

#1	-.04751	-.00033	-.00016	-.00023	.00094	.00002	.00081
#2	-.03289	-.00063	-.00021	.00031	.00071	-.00023	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2731.5	4312.6	126200.	7529.7
Stddev	2.3	8.8	487.	38.4
%RSD	.08270	.20321	.38566	.51016

#1	2733.1	4318.8	125860.	7556.8
#2	2729.9	4306.4	126550.	7502.5

Sample Name: CCVL-4970377 Acquired: 10/31/2018 23:55:26 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00562	.20225	.01304	.01852	.00207	.00202	.51477	.00191
Stddev	.00003	.00681	.00119	.00025	.00001	.00000	.00522	.00008
%RSD	.46926	3.3680	9.1345	1.3353	.63130	.08349	1.0137	4.4570
#1	.00560	.19743	.01220	.01835	.00207	.00202	.51108	.00185
#2	.00564	.20707	.01388	.01870	.00208	.00201	.51846	.00197

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0155	.00390	.00426	.00785	.05187	.46099	.02865	.20206
Stddev	.0268	.00007	.00006	.00009	.00104	.00557	.00053	.00191
%RSD	172.4	1.8982	1.3661	1.1992	2.0098	1.2083	1.8343	.94730
#1	-.0034	.00395	.00422	.00791	.05261	.46493	.02903	.20341
#2	.0345	.00385	.00430	.00778	.05113	.45706	.02828	.20070

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00325	.00859	1.0470	.01039	.01048	.1876	.01559	.02128
Stddev	.00003	.00027	.0030	.00014	.00039	.0014	.00135	.00274
%RSD	.93581	3.1565	.29027	1.3061	3.7194	.7369	8.6282	12.858
#1	.00327	.00878	1.0449	.01048	.01021	.1886	.01654	.01934
#2	.00323	.00840	1.0492	.01029	.01076	.1866	.01464	.02321

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 10/31/2018 23:55:26 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41209	.00943	.00534	.00442	.01876	.00501	.01099
Stddev	.00301	.00006	.00010	.00003	.00046	.00013	.00007
%RSD	.72982	.62502	1.8087	.69011	2.4734	2.6395	.63326

#1	.41421	.00947	.00540	.00444	.01843	.00492	.01094
#2	.40996	.00938	.00527	.00440	.01909	.00511	.01104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2738.0	4338.1	126770.	7547.0
Stddev	4.8	11.3	87.	41.9
%RSD	.17350	.26115	.06829	.55578

#1	2734.6	4330.1	126830.	7576.6
#2	2741.3	4346.1	126710.	7517.3

Sample Name: 480-143880-B-6-A Acquired: 10/31/2018 23:59:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	-.00275	.00259	.66173	.02553
Stddev	.00012	.00510	.00291	.00038	.00014
%RSD	28.028	185.71	112.09	.05671	.56042

#1	-.00034	.00086	.00465	.66199	.02542
#2	-.00050	-.00635	.00054	.66146	.02563

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	10.839	.00015	-.0155	-.00006
Stddev	.00002	.045	.00012	.0213	.00021
%RSD	17.343	.41383	81.303	137.1	373.27

#1	-.00013	10.808	.00023	-.0005	.00009
#2	-.00010	10.871	.00006	-.0306	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00044	.14082	1.2398	.00558
Stddev	.00021	.00011	.00414	.0098	.00017
%RSD	192.77	24.109	2.9368	.78989	3.0796

#1	.00026	-.00052	.13789	1.2328	.00546
#2	-.00004	-.00037	.14374	1.2467	.00571

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-6-A Acquired: 10/31/2018 23:59:17 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.3770	.00984	.24252	66.036	.00022
Stddev	.0016	.00001	.00002	.792	.00007
%RSD	.03707	.10266	.00963	1.1989	33.450

#1	4.3781	.00983	.24250	65.476	.00027
#2	4.3758	.00984	.24253	66.595	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.1254	-.00230	.00072	5.2538
Stddev	.00109	.0029	.00053	.00269	.0299
%RSD	202.64	2.312	23.088	375.37	.56881

#1	.00023	.1234	-.00193	-.00118	5.2327
#2	-.00131	.1275	-.00268	.00262	5.2750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.82783	-.00008	.00104	-.00062
Stddev	.00093	.00569	.00007	.00008	.00018
%RSD	447.28	.68772	85.209	7.4400	29.651

#1	-.00087	.82380	-.00003	.00098	-.00049
#2	.00045	.83186	-.00013	.00109	-.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-6-A Acquired: 10/31/2018 23:59:17 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00239**
 Stddev .00105
 %RSD 43.657

#1 **.00313**
 #2 **.00166**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2604.5	4217.9	124200.	7645.5
Stddev	2.7	8.8	213.	54.5
%RSD	.10177	.20963	.17155	.71223

#1	2606.4	4224.2	124350.	7684.0
#2	2602.6	4211.7	124050.	7607.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.954%	102.25%	95.071%	96.567%
Range				

Sample Name: 480-143880-B-7-A Acquired: 11/1/2018 0:03:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00072	.01948	.00028	.67698	.03408
Stddev	.00016	.02743	.00155	.00072	.00005
%RSD	22.173	140.82	555.32	.10572	.13874

#1	-.00083	.00008	-.00082	.67647	.03411
#2	-.00061	.03887	.00138	.67749	.03404

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	12.042	.00014	.0229	-.00017
Stddev	.00001	.031	.00015	.0192	.00005
%RSD	10.558	.25435	112.09	83.84	27.569

#1	-.00012	12.064	.00003	.0093	-.00014
#2	-.00014	12.021	.00024	.0365	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.00162	.15021	1.4692	.00607
Stddev	.00011	.00012	.00446	.0225	.00065
%RSD	51.066	7.3125	2.9696	1.5301	10.743

#1	.00029	-.00170	.14706	1.4533	.00561
#2	.00014	-.00154	.15336	1.4851	.00653

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-7-A Acquired: 11/1/2018 0:03:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.8592	.01086	.26146	70.474	.00004
Stddev	.0013	.00001	.00020	.198	.00022
%RSD	.02714	.06830	.07654	.28059	587.66

#1	4.8601	.01085	.26161	70.614	.00020
#2	4.8582	.01086	.26132	70.335	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	.4136	-.00128	-.00233	5.2758
Stddev	.00049	.0024	.00065	.00220	.0209
%RSD	88.968	.5736	50.913	94.662	.39628

#1	-.00089	.4152	-.00174	-.00077	5.2906
#2	-.00020	.4119	-.00082	-.00389	5.2610

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00076	.77313	-.00005	.00098	-.00056
Stddev	.00030	.00055	.00024	.00009	.00003
%RSD	39.586	.07080	459.34	9.0911	6.1433

#1	-.00055	.77352	.00012	.00091	-.00054
#2	-.00097	.77275	-.00022	.00104	-.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-7-A Acquired: 11/1/2018 0:03:04 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00170**
 Stddev .00025
 %RSD 14.440

#1 **.00187**
 #2 **.00152**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2592.1	4198.8	123320.	7564.4
Stddev	1.0	4.5	554.	13.0
%RSD	.03717	.10746	.44941	.17241

#1	2591.4	4195.6	122930.	7555.2
#2	2592.8	4202.0	123710.	7573.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.512%	101.79%	94.394%	95.543%
Range				

Sample Name: 480-143880-B-8-A Acquired: 11/1/2018 0:06:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.00468	.00428	.70358	.02980
Stddev	.00009	.00646	.00062	.00073	.00011
%RSD	16.349	137.93	14.496	.10351	.36041

#1	-.00046	.00925	.00472	.70307	.02988
#2	-.00058	.00012	.00384	.70410	.02973

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	9.4004	.00014	-.0172	-.00020
Stddev	.00000	.0130	.00001	.0034	.00001
%RSD	2.2287	.13771	7.2569	19.46	5.1033

#1	-.00011	9.4096	.00013	-.0149	-.00020
#2	-.00010	9.3913	.00014	-.0196	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00166	.26361	1.2851	.00533
Stddev	.00008	.00030	.00529	.0024	.00027
%RSD	161.39	18.044	2.0069	.18289	5.1130

#1	.00010	-.00145	.26735	1.2867	.00514
#2	-.00001	-.00187	.25987	1.2834	.00552

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-8-A Acquired: 11/1/2018 0:06:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.8779	.00777	.25099	77.276	.00026
Stddev	.0051	.00004	.00000	.034	.00011
%RSD	.13163	.46166	.00141	.04396	44.171

#1	3.8743	.00780	.25099	77.300	.00018
#2	3.8815	.00774	.25098	77.251	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	.1007	-.00244	-.00142	4.8869
Stddev	.00079	.0036	.00080	.00438	.0095
%RSD	145.11	3.544	32.643	308.77	.19422

#1	.00110	.0982	-.00301	.00168	4.8936
#2	-.00001	.1033	-.00188	-.00451	4.8801

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	1.0267	-.00007	.00114	-.00058
Stddev	.00047	.0035	.00002	.00228	.00015
%RSD	341.50	.34101	34.404	199.63	26.193

#1	-.00047	1.0242	-.00005	-.00047	-.00068
#2	.00020	1.0292	-.00009	.00275	-.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-8-A Acquired: 11/1/2018 0:06:52 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00183**
 Stddev .00111
 %RSD 60.494

#1 **.00105**
 #2 **.00261**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2588.0	4211.7	123310.	7560.6
Stddev	3.6	5.5	213.	.9
%RSD	.13767	.13084	.17244	.01254

#1	2585.5	4207.8	123160.	7561.2
#2	2590.5	4215.6	123460.	7559.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.365%	102.10%	94.387%	95.495%
Range				

Sample Name: 480-143880-C-9-A Acquired: 11/1/2018 0:10:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.03412	.00170	.67351	.03012
Stddev	.00066	.00100	.00012	.00027	.00009
%RSD	125.29	2.9209	7.3347	.03976	.30534

#1	-0.00006	.03482	.00161	.67332	.03006
#2	-0.00100	.03341	.00179	.67370	.03019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	9.6297	.00005	.0005	.00004
Stddev	.00004	.0473	.00013	.0087	.00009
%RSD	63.342	.49155	243.55	1661.	244.41

#1	-0.00010	9.5963	-0.00004	.0067	-0.00003
#2	-0.00004	9.6632	.00014	-.0056	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00132	.07272	1.1363	.00563
Stddev	.00001	.00021	.00141	.0013	.00168
%RSD	15.193	16.192	1.9394	.11698	29.930

#1	-0.00011	-.00147	.07372	1.1373	.00444
#2	-0.00009	-.00117	.07173	1.1354	.00682

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-9-A Acquired: 11/1/2018 0:10:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.8038	.00549	.24682	71.221	.00064
Stddev	.0111	.00003	.00017	.124	.00004
%RSD	.29276	.50169	.06694	.17398	5.5814

#1	3.7960	.00547	.24694	71.309	.00066
#2	3.8117	.00551	.24670	71.134	.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.1226	-.00293	-.00498	5.0792
Stddev	.00008	.0010	.00223	.00211	.0010
%RSD	20.045	.7955	75.886	42.345	.01981

#1	.00034	.1233	-.00136	-.00647	5.0799
#2	.00045	.1219	-.00451	-.00349	5.0785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.78220	.00001	.00093	-.00083
Stddev	.00081	.00127	.00012	.00003	.00050
%RSD	2304.2	.16295	1007.6	3.4369	59.887

#1	.00061	.78130	-.00008	.00091	-.00048
#2	-.00054	.78310	.00010	.00095	-.00118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-9-A Acquired: 11/1/2018 0:10:39 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00233**
 Stddev .00077
 %RSD 33.135

#1 **.00178**
 #2 **.00287**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2600.5	4221.4	123820.	7583.4
Stddev	.4	4.8	347.	1.5
%RSD	.01691	.11367	.28002	.01946

#1	2600.2	4218.0	124060.	7582.4
#2	2600.8	4224.8	123570.	7584.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.810%	102.33%	94.775%	95.783%
Range				

Sample Name: 480-143880-C-10-A Acquired: 11/1/2018 0:14:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.00824	.00222	.68946	.04101
Stddev	.00003	.01337	.00283	.00010	.00022
%RSD	21.783	162.17	127.77	.01454	.54846

#1	-.00010	.01770	.00021	.68953	.04117
#2	-.00014	-.00121	.00422	.68939	.04085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	12.860	.00009	-.0072	-.00007
Stddev	.00009	.024	.00009	.0058	.00009
%RSD	109.78	.18769	90.795	80.37	137.41

#1	-.00002	12.843	.00003	-.0031	-.00013
#2	-.00015	12.877	.00016	-.0113	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00129	.13036	1.6506	.00657
Stddev	.00015	.00007	.00034	.0251	.00025
%RSD	335.06	5.1394	.26117	1.5234	3.8289

#1	.00015	-.00134	.13060	1.6328	.00640
#2	-.00006	-.00124	.13012	1.6684	.00675

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-10-A Acquired: 11/1/2018 0:14:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.2228	.01178	.07104	80.735	.00042
Stddev	.0059	.00009	.00029	.174	.00016
%RSD	.11369	.76494	.40941	.21506	37.319

#1	5.2270	.01185	.07125	80.612	.00053
#2	5.2186	.01172	.07084	80.858	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00094	.0827	-.00137	-.00278	5.0254
Stddev	.00001	.0007	.00035	.00039	.0037
%RSD	.92975	.7972	25.772	14.108	.07452

#1	.00094	.0831	-.00162	-.00305	5.0280
#2	.00093	.0822	-.00112	-.00250	5.0227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00064	1.1901	-.00025	-.00021	-.00047
Stddev	.00079	.0029	.00004	.00033	.00002
%RSD	123.29	.24019	16.912	154.70	3.9918

#1	-.00008	1.1880	-.00022	-.00045	-.00048
#2	-.00120	1.1921	-.00028	.00002	-.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-10-A Acquired: 11/1/2018 0:14:26 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00277**
 Stddev .00071
 %RSD 25.665

#1 **.00327**
 #2 **.00227**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2581.4	4198.8	123170.	7525.3
Stddev	5.9	1.9	257.	30.8
%RSD	.22815	.04584	.20869	.40884

#1	2585.5	4200.1	122980.	7547.0
#2	2577.2	4197.4	123350.	7503.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.128%	101.79%	94.277%	95.049%
Range				

Sample Name: 480-143880-C-11-A Acquired: 11/1/2018 0:18:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00522	.00091	.61085	.02712
Stddev	.00031	.01575	.00096	.00156	.00004
%RSD	140.85	301.71	105.76	.25608	.16569

#1	-.00043	.01636	.00023	.61195	.02708
#2	-.00000	-.00592	.00159	.60974	.02715

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	13.906	.00008	-.0289	.00006
Stddev	.00017	.044	.00006	.0244	.00010
%RSD	102.14	.31329	74.456	84.55	176.20

#1	-.00029	13.875	.00004	-.0116	.00013
#2	-.00005	13.937	.00013	-.0461	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.00110	.07999	1.2960	.00635
Stddev	.00004	.00017	.00184	.0303	.00031
%RSD	155.49	15.550	2.3054	2.3417	4.8569

#1	.00005	-.00122	.07868	1.2746	.00613
#2	-.00000	-.00098	.08129	1.3175	.00657

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-11-A Acquired: 11/1/2018 0:18:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.1214	.01301	.04060	74.291	-.00002
Stddev	.0066	.00001	.00008	.242	.00014
%RSD	.12851	.10555	.18649	.32543	576.03

#1	5.1168	.01302	.04055	74.462	-.00012
#2	5.1261	.01300	.04066	74.120	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	1.523	-.00244	-.00164	5.0789
Stddev	.00142	.006	.00045	.00220	.0066
%RSD	1295.2	.3875	18.307	134.01	.12978

#1	-.00090	1.527	-.00276	-.00319	5.0835
#2	.00112	1.519	-.00212	-.00009	5.0742

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00083	.99494	.00021	.00061	-.00019
Stddev	.00025	.00100	.00043	.00075	.00049
%RSD	29.998	.10058	209.12	122.79	260.81

#1	-.00066	.99565	.00051	.00008	.00016
#2	-.00101	.99423	-.00010	.00114	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-C-11-A Acquired: 11/1/2018 0:18:14 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00208**
 Stddev .00054
 %RSD 26.133

#1 **.00246**
 #2 **.00169**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2598.9	4201.1	123510.	7548.2
Stddev	.8	1.4	19.	52.6
%RSD	.03093	.03437	.01545	.69683

#1	2599.5	4200.1	123520.	7585.4
#2	2598.4	4202.1	123500.	7511.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.755%	101.84%	94.540%	95.338%
Range				

Sample Name: 480-143880-B-12-A Acquired: 11/1/2018 0:22:03 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.00655	.00086	.76917	.05407
Stddev	.00027	.02052	.00071	.00176	.00015
%RSD	51.504	313.21	82.055	.22888	.27763

#1	-.00033	-.00796	.00136	.76792	.05418
#2	-.00071	.02107	.00036	.77041	.05397

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	14.162	.00002	-.0019	-.00016
Stddev	.00006	.027	.00009	.0055	.00008
%RSD	62.597	.19368	503.36	294.7	50.079

#1	-.00005	14.181	-.00004	.0020	-.00021
#2	-.00014	14.142	.00008	-.0058	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00145	.25762	1.4438	.00549
Stddev	.00004	.00028	.00230	.0013	.00031
%RSD	64.341	18.979	.89146	.08749	5.6905

#1	.00004	-.00165	.25600	1.4429	.00527
#2	.00010	-.00126	.25925	1.4447	.00571

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-12-A Acquired: 11/1/2018 0:22:03 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.4841	.01392	.09790	69.343	.00053
Stddev	.0157	.00003	.00022	.084	.00018
%RSD	.28682	.23398	.22254	.12173	33.388

#1	5.4953	.01395	.09775	69.283	.00041
#2	5.4730	.01390	.09805	69.402	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.1376	-.00173	-.00415	5.4020
Stddev	.00005	.0001	.00060	.00087	.0164
%RSD	6.6533	.0691	34.668	21.031	.30264

#1	.00074	.1375	-.00215	-.00477	5.3904
#2	.00082	.1377	-.00130	-.00354	5.4135

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.63135	-.00016	.00104	-.00044
Stddev	.00021	.00128	.00009	.00132	.00019
%RSD	30.059	.20235	53.579	126.91	42.966

#1	-.00084	.63045	-.00022	.00011	-.00058
#2	-.00054	.63225	-.00010	.00198	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-12-A Acquired: 11/1/2018 0:22:03 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00428**
 Stddev .00002
 %RSD .53201

#1 **.00426**
 #2 **.00429**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2591.6	4191.9	123500.	7537.4
Stddev	1.4	3.4	634.	6.4
%RSD	.05243	.08209	.51341	.08531

#1	2592.5	4194.3	123060.	7542.0
#2	2590.6	4189.5	123950.	7532.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.492%	101.62%	94.537%	95.202%
Range				

Sample Name: 480-143880-B-13-A Acquired: 11/1/2018 0:25:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.14018	.00106	.67109	.03639
Stddev	.00001	.00275	.00347	.00046	.00005
%RSD	10.970	1.9625	327.59	.06810	.14014

#1	.00011	.14213	.00351	.67141	.03643
#2	.00009	.13824	-.00139	.67076	.03636

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	11.049	.00014	-.0060	.00006
Stddev	.00009	.016	.00004	.0041	.00016
%RSD	58.200	.14334	28.636	68.14	248.65

#1	-.00021	11.038	.00011	-.0031	.00018
#2	-.00009	11.061	.00017	-.0089	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	-.00129	.20878	1.3500	.00521
Stddev	.00034	.00028	.00330	.0049	.00078
%RSD	83.195	21.609	1.5808	.36557	14.946

#1	.00017	-.00109	.20645	1.3535	.00576
#2	.00064	-.00148	.21112	1.3465	.00466

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-13-A Acquired: 11/1/2018 0:25:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.6818	.00794	.11956	65.694	.00054
Stddev	.0023	.00001	.00004	.074	.00007
%RSD	.04941	.08972	.02964	.11211	12.271

#1	4.6835	.00795	.11958	65.746	.00049
#2	4.6802	.00794	.11953	65.642	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	.8812	-.00174	-.00298	5.2780
Stddev	.00075	.0020	.00140	.00107	.0165
%RSD	92.804	.2220	80.639	35.840	.31354

#1	-.00134	.8826	-.00075	-.00222	5.2663
#2	-.00028	.8799	-.00273	-.00373	5.2897

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	1.1807	.00242	.00078	-.00012
Stddev	.00011	.0000	.00014	.00015	.00005
%RSD	18.880	.00357	5.6298	19.603	44.486

#1	-.00068	1.1807	.00252	.00067	-.00008
#2	-.00052	1.1807	.00233	.00089	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-13-A Acquired: 11/1/2018 0:25:51 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00212**
 Stddev .00003
 %RSD 1.2632

#1 **.00214**
 #2 **.00210**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2608.0	4228.4	123650.	7549.6
Stddev	2.9	10.3	44.	2.3
%RSD	.11223	.24452	.03581	.02991

#1	2605.9	4221.1	123680.	7551.2
#2	2610.0	4235.7	123620.	7548.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.078%	102.50%	94.649%	95.356%
Range				

Sample Name: 480-143880-B-14-A Acquired: 11/1/2018 0:29:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00056	.01374	.00249	.76022	.02683
Stddev	.00015	.01258	.00042	.00052	.00000
%RSD	26.475	91.498	16.816	.06783	.01336

#1	-.00067	.02264	.00219	.75985	.02683
#2	-.00046	.00485	.00279	.76058	.02683

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	12.594	.00008	-.0056	-.00012
Stddev	.00001	.043	.00010	.0155	.00005
%RSD	4.3543	.34338	127.95	278.0	43.241

#1	-.00018	12.564	.00015	-.0165	-.00016
#2	-.00019	12.625	.00001	.0054	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00922	.05269	3.6374	.00571
Stddev	.00006	.00065	.00150	.0044	.00081
%RSD	12.571	7.0595	2.8421	.12095	14.176

#1	.00041	.00968	.05163	3.6405	.00628
#2	.00049	.00876	.05375	3.6343	.00514

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-14-A Acquired: 11/1/2018 0:29:39 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.7853	.02190	.18911	79.269	-.00009
Stddev	.0023	.00004	.00013	.036	.00042
%RSD	.06166	.16224	.06671	.04566	474.47

#1	3.7869	.02187	.18920	79.243	-.00038
#2	3.7836	.02192	.18902	79.294	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00136	.5605	-.00132	-.00268	5.0733
Stddev	.00056	.0001	.00020	.00299	.0208
%RSD	41.085	.0222	15.042	111.39	.41078

#1	.00096	.5606	-.00118	-.00479	5.0586
#2	.00175	.5604	-.00146	-.00057	5.0881

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.49736	.00031	.00111	.00028
Stddev	.00076	.00024	.00016	.00082	.00025
%RSD	257.39	.04769	53.130	73.970	89.679

#1	-.00083	.49719	.00019	.00053	.00046
#2	.00024	.49753	.00042	.00169	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-B-14-A Acquired: 11/1/2018 0:29:39 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01454**
 Stddev .00020
 %RSD 1.3477

#1 **.01467**
 #2 **.01440**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2582.3	4209.3	123150.	7553.6
Stddev	2.9	2.7	308.	9.3
%RSD	.11225	.06454	.24974	.12288

#1	2584.3	4211.2	123360.	7560.2
#2	2580.2	4207.4	122930.	7547.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.160%	102.04%	94.262%	95.407%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 0:33:28 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51632	25.367	.45086	F .44543	.51379	.51407	25.111
Stddev	.00032	.137	.00220	.00129	.00124	.00151	.059
%RSD	.06123	.54001	.48828	.28970	.24066	.29364	.23350

#1	.51654	25.464	.45242	.44452	.51292	.51514	25.153
#2	.51609	25.270	.44930	.44634	.51466	.51301	25.070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46721	-.0172	.49630	.53275	.51270	25.943	25.809
Stddev	.00078	.0155	.00032	.00085	.00001	.112	.113
%RSD	.16774	89.75	.06398	.15934	.00282	.42990	.43602

#1	.46665	-.0282	.49608	.53335	.51271	26.022	25.889
#2	.46776	-.0063	.49652	.53215	.51269	25.864	25.730

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50134	25.076	.54188	.45895	26.728	.52397	.48864
Stddev	.00141	.037	.00022	.00095	.112	.00220	.00264
%RSD	.28199	.14593	.04038	.20605	.41819	.42024	.53940

#1	.50234	25.102	.54204	.45962	26.807	.52242	.49050
#2	.50034	25.050	.54173	.45828	26.649	.52553	.48677

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 11/1/2018 0:33:28 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.88	.46533	.47672	24.631	.50215	F .55832	.51428
Stddev	.04	.00235	.00147	.010	.00101	.00264	.00014
%RSD	.1712	.50505	.30763	.03953	.20095	.47334	.02804

#1	22.91	.46700	.47776	24.637	.50286	.56019	.51418
#2	22.85	.46367	.47568	24.624	.50144	.55646	.51439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						.50000	
Range						10.000%	

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47446	.53874	.50359
Stddev	.00239	.00042	.00062
%RSD	.50444	.07710	.12224

#1	.47277	.53844	.50315
#2	.47616	.53903	.50402

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2557.1	4160.6	121930.	7372.2
Stddev	1.4	6.3	256.	43.1
%RSD	.05627	.15199	.21015	.58406

#1	2556.0	4156.2	122110.	7341.8
#2	2558.1	4165.1	121740.	7402.7

Sample Name: CCB-4957862 Acquired: 11/1/2018 0:37:11 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.00439	.00062	.00098	-.00001	-.00015	.00876	.00006
Stddev	.00020	.00611	.00074	.00027	.00000	.00004	.00222	.00002
%RSD	58.285	139.14	119.31	27.692	46.753	29.233	25.337	23.794

#1	-.00020	.00007	.00010	.00117	-.00001	-.00012	.00719	.00005
#2	-.00047	.00871	.00115	.00079	-.00000	-.00018	.01033	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0047	.00014	-.00010	-.00134	.00011	.00950	.00076	-.00214
Stddev	.0016	.00005	.00053	.00011	.00113	.01470	.00054	.00243
%RSD	34.80	36.377	514.72	8.0324	1003.2	154.75	70.798	113.59

#1	-.0059	.00011	.00027	-.00141	.00092	.01990	.00038	-.00385
#2	-.0036	.00018	-.00048	-.00126	-.00069	-.00090	.00114	-.00042

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.00044	.06194	.00018	.00047	.0094	-.00204	.00010
Stddev	.00007	.00003	.00808	.00007	.00070	.0006	.00060	.00089
%RSD	61.294	7.5929	13.050	36.020	150.44	6.801	29.359	873.88

#1	.00018	.00042	.05623	.00023	-.00003	.0099	-.00247	-.00053
#2	.00007	.00046	.06766	.00014	.00096	.0090	-.00162	.00073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 0:37:11 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04657	-.00064	-.00010	.00021	.00097	.00005	.00078
Stddev	.00598	.00029	.00004	.00032	.00092	.00015	.00042
%RSD	12.832	46.107	43.055	153.24	95.214	305.31	53.307

#1	-.04234	-.00043	-.00013	-.00002	.00032	.00016	.00108
#2	-.05079	-.00085	-.00007	.00043	.00162	-.00006	.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2727.4	4297.3	127220.	7566.7
Stddev	.7	.9	77.	10.2
%RSD	.02614	.02013	.06039	.13478

#1	2727.9	4296.7	127280.	7559.5
#2	2726.9	4297.9	127170.	7573.9

Sample Name: CCVL-4970377 Acquired: 11/1/2018 0:41:04 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00589	.18128	.01526	.01834	.00206	.00206	.51082	.00201
Stddev	.00032	.02929	.00035	.00036	.00001	.00004	.00070	.00000
%RSD	5.4598	16.156	2.3084	1.9536	.46426	1.9515	.13781	.01890

#1	.00612	.16057	.01551	.01809	.00205	.00203	.51032	.00201
#2	.00567	.20199	.01501	.01859	.00207	.00209	.51132	.00201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0108	.00402	.00413	.00777	.05229	.45342	.02816	.20366
Stddev	.0197	.00005	.00004	.00000	.00251	.00546	.00002	.00024
%RSD	182.9	1.2048	1.0002	.01664	4.8037	1.2049	.06867	.11561

#1	-.0247	.00406	.00416	.00777	.05051	.44956	.02815	.20349
#2	.0032	.00399	.00410	.00777	.05406	.45729	.02817	.20383

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00321	.00866	1.0278	.01044	.01029	.1791	.01653	.01861
Stddev	.00003	.00019	.0024	.00032	.00086	.0045	.00019	.00215
%RSD	1.0744	2.2325	.23264	3.1077	8.3918	2.509	1.1722	11.545

#1	.00318	.00879	1.0261	.01067	.01090	.1759	.01639	.01709
#2	.00323	.00852	1.0295	.01021	.00968	.1822	.01667	.02013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 11/1/2018 0:41:04 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.44651	.00959	.00520	.00441	.01947	.00497	.01012
Stddev	.00249	.00063	.00000	.00003	.00049	.00025	.00064
%RSD	.55787	6.6201	.07853	.75809	2.5389	5.0663	6.2806

#1	.44475	.00914	.00519	.00443	.01912	.00479	.00967
#2	.44827	.01004	.00520	.00438	.01982	.00515	.01057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.9	4336.5	127060.	7534.4
Stddev	.2	3.2	199.	14.9
%RSD	.00896	.07479	.15671	.19720

#1	2735.1	4334.2	127200.	7523.9
#2	2734.7	4338.8	126920.	7544.9

Sample Name: LCSD 480-441229/25-A Acquired: 11/1/2018 0:44:55 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04852	9.8087	.18074	.18083	.19923
Stddev	.00007	.0329	.00201	.00051	.00029
%RSD	.13627	.33539	1.1117	.28280	.14777

#1	.04857	9.7855	.17932	.18119	.19943
#2	.04848	9.8320	.18216	.18047	.19902

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20471	9.6409	.18483	-.0306	.18883
Stddev	.00029	.0422	.00054	.0173	.00044
%RSD	.14092	.43811	.29039	56.46	.23345

#1	.20491	9.6111	.18521	-.0184	.18852
#2	.20451	9.6708	.18445	-.0428	.18915

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20461	.19258	10.036	9.5557	.18698
Stddev	.00051	.00026	.039	.0527	.00055
%RSD	.25012	.13312	.38812	.55143	.29324

#1	.20425	.19276	10.009	9.5185	.18660
#2	.20497	.19240	10.064	9.5930	.18737

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCSD 480-441229/25-A Acquired: 11/1/2018 0:44:55 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8056	.20433	.17449	9.8994	.20836
Stddev	.0385	.00025	.00151	.0020	.00039
%RSD	.39293	.12051	.86687	.01994	.18507

#1	9.8329	.20451	.17556	9.9008	.20809
#2	9.7784	.20416	.17342	9.8980	.20863

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18741	8.803	.17906	.18653	9.3453
Stddev	.00104	.050	.00000	.00075	.0649
%RSD	.55403	.5661	.00093	.40312	.69504

#1	.18667	8.838	.17906	.18600	9.2994
#2	.18814	8.768	.17907	.18706	9.3913

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19324	.21006	.19629	.18818	.20385
Stddev	.00004	.00055	.00140	.00192	.00059
%RSD	.02317	.26003	.71285	1.0180	.28707

#1	.19321	.20967	.19728	.18953	.20426
#2	.19327	.21044	.19531	.18682	.20343

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCSD 480-441229/25-A Acquired: 11/1/2018 0:44:55 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20671**
 Stddev .00002
 %RSD .00733

#1 **.20670**
 #2 **.20672**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2661.0	4270.0	125860.	7623.4
Stddev	1.9	10.9	262.	38.7
%RSD	.07048	.25486	.20854	.50808

#1	2659.7	4262.3	125670.	7650.8
#2	2662.4	4277.7	126040.	7596.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.971%	103.51%	96.337%	96.289%
Range				

Sample Name: LB 480-442254/1-B Acquired: 11/1/2018 0:48:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.01227	.00396	.00922	.00315
Stddev	.00027	.00182	.00251	.00013	.00000
%RSD	77.064	14.827	63.268	1.3635	.05170

#1	-.00054	.01099	.00574	.00930	.00315
#2	-.00016	.01356	.00219	.00913	.00315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.08714	-.00005	-.0015	.00006
Stddev	.00001	.00093	.00006	.0276	.00022
%RSD	11.914	1.0717	103.18	1858.	363.06

#1	-.00010	.08648	-.00001	-.0210	.00021
#2	-.00009	.08780	-.00010	.0180	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00132	-.00085	.00429	.41138	.00224
Stddev	.00013	.00019	.00260	.06548	.00049
%RSD	9.5071	21.922	60.522	15.918	22.064

#1	.00141	-.00099	.00245	.36508	.00189
#2	.00124	-.00072	.00612	.45769	.00259

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LB 480-442254/1-B Acquired: 11/1/2018 0:48:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01248	.00145	.00006	F 1238.0	-.00006
Stddev	.00075	.00001	.00014	.0	.00016
%RSD	6.0443	.45363	215.49	.00304	282.00

#1	.01301	.00144	.00016	1237.9	-.00017
#2	.01194	.00145	-.00003	1238.0	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				1.0000	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.0184	-.00072	-.00210	-.03859
Stddev	.00096	.0002	.00169	.00060	.01095
%RSD	355.28	1.340	234.88	28.441	28.384

#1	-.00041	.0186	.00048	-.00168	-.03085
#2	.00094	.0182	-.00192	-.00252	-.04634

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00145	.00038	-.00011	.00116	-.00063
Stddev	.00026	.00009	.00006	.00041	.00009
%RSD	17.693	22.523	54.102	35.706	14.949

#1	.00127	.00032	-.00007	.00087	-.00056
#2	.00163	.00044	-.00015	.00146	-.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LB 480-442254/1-B Acquired: 11/1/2018 0:48:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00472
Stddev .00002
%RSD .50034

#1 .00474
#2 .00471

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2204.4	3905.9	111350.	7241.9
Stddev	4.0	11.9	27.	11.7
%RSD	.18225	.30440	.02395	.16131

#1	2207.3	3914.3	111330.	7233.6
#2	2201.6	3897.5	111370.	7250.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.675%	94.686%	85.233%	91.470%
Range				

Sample Name: MB 480-442494/2-A Acquired: 11/1/2018 0:52:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00132	.00016	.00031	-.00000
Stddev	.00012	.01385	.00068	.00013	.00001
%RSD	53.954	1052.0	426.17	41.552	2419.0

#1	-.00014	.01111	.00064	.00039	-.00001
#2	-.00031	-.00848	-.00032	.00022	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.01554	-.00004	-.0029	.00009
Stddev	.00002	.00193	.00008	.0097	.00006
%RSD	13.100	12.403	189.78	337.7	67.936

#1	-.00013	.01417	.00001	-.0098	.00013
#2	-.00011	.01690	-.00010	.0040	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	-.00150	-.00044	.05765	.00033
Stddev	.00048	.00030	.00016	.00144	.00018
%RSD	166.99	19.825	35.337	2.4973	54.468

#1	.00063	-.00129	-.00033	.05664	.00046
#2	-.00005	-.00171	-.00055	.05867	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-442494/2-A Acquired: 11/1/2018 0:52:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00322	.00134	-.00026	.29394	.00024
Stddev	.00296	.00000	.00005	.01422	.00035
%RSD	91.989	.01624	18.443	4.8386	148.19

#1	-.00112	.00134	-.00030	.30400	-.00001
#2	-.00531	.00134	-.00023	.28388	.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	.0061	-.00113	-.00188	-.06277
Stddev	.00089	.0017	.00045	.00098	.00685
%RSD	142.39	27.20	40.136	52.061	10.908

#1	-.00125	.0050	-.00081	-.00119	-.06761
#2	.00000	.0073	-.00145	-.00258	-.05792

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00093	-.00012	.00002	.00057	-.00057
Stddev	.00047	.00004	.00000	.00031	.00009
%RSD	50.194	29.817	19.865	53.894	15.460

#1	-.00060	-.00014	.00002	.00035	-.00051
#2	-.00126	-.00009	.00002	.00078	-.00063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-442494/2-A Acquired: 11/1/2018 0:52:33 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00294**
 Stddev .00026
 %RSD 8.8878

#1 **.00313**
 #2 **.00276**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.8	4343.6	128410.	7670.9
Stddev	2.7	1.0	405.	26.4
%RSD	.09911	.02256	.31539	.34378

#1	2745.7	4344.3	128700.	7689.6
#2	2741.9	4343.0	128130.	7652.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.925%	105.30%	98.293%	96.888%
Range				

Sample Name: LCS 480-442494/3-A Acquired: 11/1/2018 0:56:24 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0553	.00317	.94533	.00716	.96839
Stddev	.0019	.01897	.00165	.00006	.00200
%RSD	.17758	597.86	.17468	.89047	.20661

#1	1.0540	.01658	.94650	.00711	.96980
#2	1.0566	-.01024	.94416	.00720	.96697

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0108	.09072	.94877	-.0341	.98744
Stddev	.0015	.00135	.00015	.0041	.00067
%RSD	.14695	1.4854	.01567	12.14	.06765

#1	1.0098	.09168	.94866	-.0312	.98696
#2	1.0119	.08977	.94887	-.0371	.98791

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0187	.98722	.00514	.49985	.00256
Stddev	.0022	.00088	.00078	.07677	.00010
%RSD	.21539	.08929	15.151	15.360	3.9488

#1	1.0202	.98659	.00569	.44556	.00263
#2	1.0171	.98784	.00459	.55413	.00248

Check ?	Chk Pass	Chk Pass	None	None	None
High Limit					
Low Limit					

Sample Name: LCS 480-442494/3-A Acquired: 11/1/2018 0:56:24 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00286	.98360	.85609	1248.6	1.0718
Stddev	.00066	.00045	.00059	.1	.0024
%RSD	22.942	.04573	.06893	.00464	.22064

#1	-.00239	.98328	.85651	1248.6	1.0701
#2	-.00332	.98392	.85568	1248.7	1.0734

Check ?	None	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0123	F .0191	.89892	.99606	-.03651
Stddev	.0027	.0036	.00180	.00324	.00370
%RSD	.26937	18.69	.20076	.32542	10.131

#1	1.0143	.0166	.90020	.99376	-.03913
#2	1.0104	.0217	.89764	.99835	-.03390

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None
High Limit		1.200			
Low Limit		.8000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00094	1.0471	.00058	.90209	1.0513
Stddev	.00040	.0018	.00036	.00153	.0020
%RSD	42.588	.17560	61.203	.16934	.18667

#1	.00066	1.0484	.00033	.90101	1.0499
#2	.00122	1.0458	.00083	.90317	1.0527

Check ?	None	None	None	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-442494/3-A Acquired: 11/1/2018 0:56:24 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.0356**
 Stddev .0016
 %RSD .15800

#1 1.0345
 #2 1.0368

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2197.1	3907.1	110750.	7236.4
Stddev	1.9	5.8	3.	20.9
%RSD	.08613	.14857	.00270	.28908

#1	2195.8	3903.0	110760.	7251.2
#2	2198.5	3911.2	110750.	7221.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.414%	94.714%	84.776%	91.400%
Range				

Sample Name: 480-143927-B-1-C Acquired: 11/1/2018 1:00:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.07533	.00230	.11735	.34442
Stddev	.00022	.00552	.00116	.00017	.00058
%RSD	61.052	7.3259	50.561	.14896	.16747

#1	-.00021	.07923	.00148	.11747	.34482
#2	-.00053	.07143	.00312	.11723	.34401

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	356.77	.01067	.0254	.02116
Stddev	.00004	.13	.00002	.0002	.00005
%RSD	89.779	.03731	.22337	.8125	.23243

#1	-.00002	356.68	.01065	.0255	.02113
#2	-.00008	356.87	.01069	.0252	.02120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00361	3.4149	7.1894	3.0618	.04073
Stddev	.00052	.0078	.0096	.0656	.00001
%RSD	14.473	.22950	.13382	2.1432	.03432

#1	.00398	3.4204	7.1826	3.0154	.04074
#2	.00324	3.4093	7.1962	3.1082	.04072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143927-B-1-C Acquired: 11/1/2018 1:00:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.1815	3.8713	.00171	F 1388.0	.21435
Stddev	.0195	.0025	.00014	.7	.00105
%RSD	.21228	.06460	7.9458	.05017	.49080

#1	9.1952	3.8731	.00162	1387.5	.21509
#2	9.1677	3.8696	.00181	1388.5	.21360

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03817	.7367	.00405	-.00702	1.8368
Stddev	.00160	.0060	.00038	.00164	.0138
%RSD	4.1979	.8166	9.2607	23.385	.75189

#1	.03704	.7409	.00378	-.00818	1.8270
#2	.03930	.7324	.00431	-.00586	1.8466

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.88553	-.00113	-.00014	-.00015
Stddev	.00029	.00083	.00021	.00135	.00002
%RSD	44.912	.09317	18.413	989.13	12.748

#1	.00084	.88495	-.00128	-.00109	-.00016
#2	.00044	.88611	-.00098	.00082	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143927-B-1-C Acquired: 11/1/2018 1:00:14 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.2234**
 Stddev .0041
 %RSD .33844

#1 1.2263
 #2 1.2205

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2056.3	3711.2	107370.	7137.7
Stddev	2.6	1.8	201.	11.7
%RSD	.12427	.04888	.18757	.16432

#1	2058.1	3712.5	107230.	7146.0
#2	2054.5	3709.9	107520.	7129.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.390%	89.967%	82.189%	90.153%
Range				

Sample Name: 480-144035-A-1-B Acquired: 11/1/2018 1:04:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.04984	.00559	.02629	.03472
Stddev	.00005	.00592	.00083	.00040	.00004
%RSD	20.071	11.871	14.906	1.5259	.11798

#1	.00020	.05402	.00500	.02658	.03475
#2	.00027	.04566	.00618	.02601	.03469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	1.1234	.00043	.0000	.00024
Stddev	.00010	.0039	.00006	.0280	.00005
%RSD	83.542	.35043	14.007	292000.	20.272

#1	-.00018	1.1206	.00039	.0198	.00021
#2	-.00005	1.1262	.00048	-.0198	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00371	.00157	.05030	1.2247	.00237
Stddev	.00007	.00009	.00091	.0797	.00032
%RSD	1.8206	5.7557	1.7994	6.5074	13.442

#1	.00366	.00163	.04966	1.1683	.00214
#2	.00375	.00151	.05094	1.2810	.00260

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-B Acquired: 11/1/2018 1:04:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19112	.01395	.00082	F 1313.0	.01190
Stddev	.00279	.00015	.00018	2.3	.00018
%RSD	1.4615	1.0918	22.345	.17323	1.5058

#1	.18915	.01406	.00069	1314.6	.01177
#2	.19310	.01384	.00095	1311.4	.01203

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07263	.2701	.00250	-.00315	.22592
Stddev	.00057	.0014	.00011	.00056	.00287
%RSD	.78394	.5145	4.4966	17.843	1.2722

#1	.07222	.2711	.00258	-.00275	.22388
#2	.07303	.2691	.00242	-.00355	.22795

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00075	.00215	-.00023	-.00094	-.00044
Stddev	.00036	.00002	.00008	.00136	.00023
%RSD	48.197	.97978	33.398	144.46	52.339

#1	.00100	.00217	-.00029	-.00191	-.00028
#2	.00049	.00214	-.00018	.00002	-.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-B Acquired: 11/1/2018 1:04:12 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 118.40**
 Stddev .18
 %RSD .15209

#1 118.53
 #2 118.27

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2150.3	3843.5	110640.	7244.4
Stddev	1.9	5.0	102.	17.5
%RSD	.08708	.12906	.09177	.24089

#1	2151.6	3847.0	110570.	7232.1
#2	2148.9	3840.0	110710.	7256.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.742%	93.173%	84.690%	91.502%
Range				

Sample Name: 480-144035-A-1-Bsd@5 Acquired: 11/1/2018 1:08:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.02289	.00029	.00561	.00736
Stddev	.00019	.04713	.00046	.00027	.00002
%RSD	615.64	205.86	162.63	4.7956	.21605

#1	-.00016	-.01043	.00061	.00542	.00737
#2	.00010	.05622	-.00004	.00580	.00735

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.26735	.00005	-.0093	.00001
Stddev	.00005	.00651	.00002	.0009	.00001
%RSD	46.685	2.4356	36.905	9.950	163.51

#1	-.00015	.26274	.00004	-.0086	.00002
#2	-.00007	.27195	.00007	-.0100	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00081	-.00100	.01405	.29749	.00103
Stddev	.00022	.00039	.00063	.01903	.00149
%RSD	27.075	39.261	4.5076	6.3983	145.08

#1	.00096	-.00072	.01450	.28403	-.00003
#2	.00065	-.00128	.01360	.31095	.00208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-Bsd@5 Acquired: 11/1/2018 1:08:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04176	.00284	.00007	262.98	.00245
Stddev	.00284	.00000	.00018	.44	.00027
%RSD	6.8064	.11847	239.69	.16588	11.041

#1	.04377	.00284	-.00005	263.29	.00226
#2	.03975	.00285	.00020	262.67	.00264

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01466	.0600	-.00100	-.00239	-.01040
Stddev	.00218	.0012	.00055	.00113	.00673
%RSD	14.866	1.996	55.253	47.247	64.644

#1	.01311	.0609	-.00061	-.00319	-.01516
#2	.01620	.0592	-.00139	-.00159	-.00565

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00052	-.00039	.00098	-.00053
Stddev	.00013	.00000	.00028	.00010	.00008
%RSD	99.139	.63036	72.642	9.7002	14.404

#1	-.00004	.00051	-.00059	.00105	-.00047
#2	-.00022	.00052	-.00019	.00092	-.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-Bsd@5 Acquired: 11/1/2018 1:08:07 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg F **28.006**
 Stddev .096
 %RSD .34261

#1 27.938
 #2 28.073

Check ? Chk Fail
 High Limit 18.000
 Low Limit -.01000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2422.1	4114.3	118930.	7349.8
Stddev	.5	4.5	442.	34.0
%RSD	.01934	.10980	.37192	.46268

#1	2421.8	4111.1	119240.	7325.7
#2	2422.5	4117.5	118620.	7373.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.446%	99.738%	91.035%	92.832%
Range				

Sample Name: 480-144035-A-1-Bpds Acquired: 11/1/2018 1:12:03 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0681	.03322	.94098	.02380	1.0161
Stddev	.0001	.00367	.00288	.00055	.0017
%RSD	.01070	11.041	.30577	2.2928	.16763

#1	1.0682	.03062	.94302	.02418	1.0149
#2	1.0680	.03581	.93895	.02341	1.0173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0154	1.1185	.96028	-.0112	1.0130
Stddev	.0009	.0047	.00191	.0207	.0006
%RSD	.08697	.42044	.19936	184.2	.05857

#1	1.0161	1.1152	.96163	.0034	1.0126
#2	1.0148	1.1218	.95892	-.0258	1.0134

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0497	1.0349	.05215	.99303	.00319
Stddev	.0014	.0037	.00032	.06720	.00046
%RSD	.12990	.35798	.61879	6.7669	14.498

#1	1.0506	1.0323	.05193	.94551	.00352
#2	1.0487	1.0375	.05238	1.0405	.00286

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-Bpds Acquired: 11/1/2018 1:12:03 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18034	1.0689	.86363	F 1313.6	1.0828
Stddev	.00308	.0007	.00201	.5	.0001
%RSD	1.7091	.06402	.23256	.03719	.00780

#1	.18252	1.0694	.86505	1313.3	1.0828
#2	.17816	1.0685	.86221	1314.0	1.0829

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1076	.2676	.90526	1.0273	.18983
Stddev	.0031	.0002	.00574	.0026	.01248
%RSD	.27822	.0772	.63436	.25536	6.5750

#1	1.1098	.2677	.90932	1.0292	.18100
#2	1.1054	.2674	.90120	1.0255	.19865

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00140	.00222	.00040	.91893	1.0670
Stddev	.00008	.00005	.00027	.00166	.0004
%RSD	5.8827	2.3118	67.532	.18064	.04083

#1	.00146	.00225	.00021	.92011	1.0667
#2	.00134	.00218	.00060	.91776	1.0674

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-Bpds Acquired: 11/1/2018 1:12:03 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 118.63**
 Stddev .22
 %RSD .18764

#1 118.47
 #2 118.79

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2156.5	3877.6	110180.	7196.1
Stddev	3.2	12.0	4.	15.2
%RSD	.14724	.31067	.00341	.21108

#1	2154.2	3869.1	110180.	7206.8
#2	2158.7	3886.1	110180.	7185.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.965%	93.999%	84.339%	90.891%
Range				

Sample Name: 480-144035-A-1-C MS Acquired: 11/1/2018 1:16:00 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0910	.05473	.99550	.02381	1.0318
Stddev	.0017	.00820	.00624	.00021	.0061
%RSD	.15864	14.976	.62642	.87799	.59450

#1	1.0922	.06053	.99991	.02395	1.0362
#2	1.0898	.04894	.99109	.02366	1.0275

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0469	1.1130	.98213	-.0316	1.0351
Stddev	.0006	.0006	.00071	.0006	.0000
%RSD	.06075	.05800	.07267	2.036	.00062

#1	1.0464	1.1125	.98264	-.0311	1.0351
#2	1.0473	1.1134	.98163	-.0320	1.0351

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0496	1.0348	.04727	1.0711	.00348
Stddev	.0060	.0004	.00039	.0703	.00107
%RSD	.56861	.04118	.82555	6.5601	30.762

#1	1.0538	1.0345	.04699	1.0214	.00272
#2	1.0453	1.0351	.04755	1.1208	.00424

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-C MS Acquired: 11/1/2018 1:16:00 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.17920	1.0312	.89584	F 1288.5	1.1219
Stddev	.00041	.0043	.00130	6.8	.0011
%RSD	.22969	.42027	.14492	.52725	.09927

#1	.17891	1.0342	.89676	1293.3	1.1227
#2	.17949	1.0281	.89493	1283.7	1.1212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1273	.2711	.93709	1.0636	.20891
Stddev	.0008	.0002	.00272	.0085	.00542
%RSD	.06666	.0828	.28978	.79538	2.5943

#1	1.1278	.2709	.93901	1.0696	.20507
#2	1.1267	.2712	.93517	1.0576	.21274

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00181	1.0821	.00007	.94108	1.0752
Stddev	.00021	.0024	.00013	.00589	.0043
%RSD	11.344	.22567	178.28	.62596	.40338

#1	.00195	1.0839	-.00002	.94524	1.0783
#2	.00166	1.0804	.00017	.93691	1.0722

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-C MS Acquired: 11/1/2018 1:16:00 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **F 116.53**
Stddev .60
%RSD .51862

#1 116.96
#2 116.10

Check ? **Chk Fail**
High Limit **18.000**
Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2152.0	3841.3	110720.	7229.9
Stddev	.8	1.6	816.	6.1
%RSD	.03597	.04066	.73693	.08424

#1	2151.5	3840.1	110150.	7225.6
#2	2152.6	3842.4	111300.	7234.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	76.805%	93.119%	84.754%	91.318%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 1:19:55 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51449	24.956	F .44719	F .44109	.51053	.51097	25.048
Stddev	.00095	.078	.00243	.00050	.00383	.00282	.166
%RSD	.18495	.31103	.54400	.11322	.75067	.55205	.66092

#1	.51381	24.901	.44891	.44145	.50782	.50897	24.931
#2	.51516	25.010	.44547	.44074	.51324	.51296	25.166

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46525	-.0061	.49400	.52824	.51136	25.652	25.834
Stddev	.00160	.0197	.00072	.00094	.00013	.105	.052
%RSD	.34374	321.2	.14544	.17709	.02498	.40970	.20030

#1	.46638	.0078	.49451	.52758	.51127	25.578	25.797
#2	.46412	-.0200	.49349	.52890	.51145	25.727	25.870

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49652	24.987	.53929	.45849	26.793	.52138	.48569
Stddev	.00089	.014	.00003	.00173	.031	.00024	.00032
%RSD	.17836	.05517	.00495	.37709	.11703	.04514	.06544

#1	.49715	24.997	.53928	.45971	26.771	.52121	.48591
#2	.49589	24.977	.53931	.45727	26.815	.52154	.48547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 11/1/2018 1:19:55 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.66	.46942	.47644	24.198	.50322	.54777	.51323
Stddev	.04	.00054	.00152	.060	.00087	.00110	.00138
%RSD	.1583	.11513	.31930	.24826	.17307	.20094	.26885
#1	22.68	.46904	.47751	24.155	.50384	.54699	.51421
#2	22.63	.46980	.47536	24.240	.50261	.54855	.51226

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.47371	.53326	.50216
Stddev	.00272	.00145	.00214
%RSD	.57437	.27204	.42629
#1	.47563	.53223	.50367
#2	.47178	.53429	.50064

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.1	4163.9	122140.	7392.6
Stddev	.2	8.0	564.	26.4
%RSD	.00777	.19295	.46168	.35763
#1	2559.0	4158.3	122540.	7411.3
#2	2559.2	4169.6	121740.	7373.9

Sample Name: CCB-4957862 Acquired: 11/1/2018 1:23:37 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.00244	.00038	-.00023	.00001	-.00004	.00860	-.00004
Stddev	.00010	.00319	.00043	.00019	.00000	.00009	.00090	.00009
%RSD	297.44	130.71	111.19	78.923	25.360	236.76	10.453	260.20

#1	-.00004	-.00469	.00008	-.00010	.00001	.00002	.00923	.00003
#2	.00010	-.00018	.00068	-.00037	.00001	-.00010	.00796	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0162	.00005	.00009	-.00180	.00261	.00083	.00094	-.00229
Stddev	.0024	.00000	.00038	.00009	.00357	.02841	.00062	.00180
%RSD	14.67	7.1228	430.75	5.0481	136.58	3422.7	66.235	78.873

#1	-.0179	.00004	.00036	-.00187	.00514	.02092	.00050	-.00356
#2	-.0145	.00005	-.00018	-.00174	.00009	-.01926	.00138	-.00101

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00082	.36594	.00017	-.00053	.0103	-.00140	.00069
Stddev	.00008	.00018	.00349	.00007	.00064	.0002	.00009	.00037
%RSD	82.644	21.931	.95311	39.153	120.79	1.637	6.6039	53.744

#1	.00015	.00069	.36840	.00021	-.00008	.0102	-.00147	.00096
#2	.00004	.00095	.36347	.00012	-.00099	.0104	-.00134	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 1:23:37 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.04232	-0.00032	-0.00008	-0.00022	.00032	-0.00035	.00120
Stddev	.00983	.00015	.00014	.00028	.00100	.00012	.00004
%RSD	23.237	45.458	164.48	126.15	313.65	34.860	3.3987

#1	-0.03536	-0.00022	-0.00018	-0.00002	.00102	-0.00043	.00117
#2	-0.04927	-0.00043	.00001	-0.00041	-0.00039	-0.00026	.00123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2722.5	4306.2	125550.	7393.5
Stddev	2.5	.7	520.	1.7
%RSD	.09178	.01595	.41401	.02364

#1	2724.3	4306.7	125920.	7394.7
#2	2720.7	4305.8	125190.	7392.3

Sample Name: CCVL-4970377 Acquired: 11/1/2018 1:27:29 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00597	.21070	.01335	.01799	.00205	.00196	.51306	.00198
Stddev	.00040	.02646	.00059	.00027	.00001	.00004	.00099	.00008
%RSD	6.7267	12.559	4.4044	1.4905	.57423	2.1883	.19246	3.9516
#1	.00569	.22941	.01377	.01818	.00205	.00199	.51236	.00193
#2	.00626	.19199	.01294	.01780	.00204	.00193	.51376	.00204

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0068	.00399	.00424	.00832	.05071	.51037	.02811	.20217
Stddev	.0383	.00022	.00003	.00009	.00227	.02098	.00037	.00050
%RSD	565.6	5.4598	.78597	1.0309	4.4822	4.1112	1.3100	.24547
#1	.0203	.00415	.00426	.00838	.04910	.49553	.02785	.20252
#2	-.0339	.00384	.00421	.00826	.05232	.52521	.02837	.20182

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00327	.00885	1.2336	.01055	.01018	.1812	.01702	.02283
Stddev	.00004	.00010	.0039	.00003	.00033	.0013	.00037	.00233
%RSD	1.2179	1.1659	.31633	.28779	3.2863	.7178	2.1859	10.201
#1	.00324	.00892	1.2364	.01053	.00994	.1821	.01729	.02448
#2	.00330	.00878	1.2309	.01058	.01041	.1803	.01676	.02119

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 11/1/2018 1:27:29 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43399	.00896	.00517	.00474	.01835	.00474	.01112
Stddev	.00518	.00015	.00005	.00009	.00064	.00019	.00037
%RSD	1.1945	1.7047	1.0537	1.8009	3.4966	4.0511	3.3478
#1	.43766	.00885	.00513	.00468	.01880	.00460	.01085
#2	.43032	.00907	.00521	.00481	.01790	.00487	.01138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2729.5	4308.1	126960.	7508.8
Stddev	2.6	3.4	50.	16.2
%RSD	.09620	.07929	.03933	.21559
#1	2731.3	4310.6	127000.	7520.2
#2	2727.6	4305.7	126920.	7497.3

Sample Name: 480-144035-A-1-D MSD Acquired: 11/1/2018 1:31:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0628	.03260	.95880	.02297	1.0046
Stddev	.0018	.00875	.00086	.00043	.0029
%RSD	.17109	26.827	.08964	1.8858	.28730

#1	1.0615	.02642	.95819	.02328	1.0066
#2	1.0641	.03878	.95941	.02267	1.0025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0175	1.3434	.95218	.0027	1.0078
Stddev	.0012	.0039	.00046	.0131	.0008
%RSD	.12020	.28802	.04841	476.8	.08256

#1	1.0166	1.3461	.95251	-.0065	1.0083
#2	1.0184	1.3407	.95186	.0120	1.0072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0307	1.0024	.08412	.61357	.00422
Stddev	.0017	.0010	.00004	.03832	.00063
%RSD	.15976	.09725	.04870	6.2457	14.869

#1	1.0295	1.0017	.08409	.58647	.00466
#2	1.0318	1.0031	.08415	.64067	.00377

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-D MSD Acquired: 11/1/2018 1:31:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21488	1.0224	.86747	F 1254.9	1.0934
Stddev	.00456	.0022	.00176	2.0	.0006
%RSD	2.1202	.21662	.20243	.16169	.05571

#1	.21166	1.0208	.86872	1256.3	1.0929
#2	.21810	1.0239	.86623	1253.5	1.0938

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0980	.2598	.90452	1.0197	.21236
Stddev	.0012	.0012	.00455	.0029	.00869
%RSD	.11039	.4548	.50322	.27960	4.0925

#1	1.0971	.2589	.90774	1.0218	.21850
#2	1.0988	.2606	.90130	1.0177	.20621

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00073	1.0526	.00012	.92040	1.0578
Stddev	.00040	.0028	.00015	.00129	.0029
%RSD	54.599	.26970	125.10	.14003	.27915

#1	.00045	1.0546	.00001	.91949	1.0558
#2	.00102	1.0506	.00023	.92131	1.0599

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144035-A-1-D MSD Acquired: 11/1/2018 1:31:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **F 115.48**
Stddev .17
%RSD .14467

#1 115.37
#2 115.60

Check ? **Chk Fail**
High Limit **18.000**
Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2166.1	3872.9	110500.	7237.9
Stddev	.4	4.5	43.	6.5
%RSD	.01967	.11655	.03883	.09036

#1	2165.8	3869.7	110530.	7242.5
#2	2166.4	3876.0	110470.	7233.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.306%	93.884%	84.582%	91.419%
Range				

Sample Name: 480-144100-A-1-D Acquired: 11/1/2018 1:35:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.12655	.00347	.01147	.86373
Stddev	.00023	.01930	.00135	.00044	.00371
%RSD	27.485	15.250	38.885	3.8223	.42910

#1	-.00068	.11290	.00443	.01116	.86635
#2	-.00100	.14020	.00252	.01178	.86111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	160.28	.00107	-.0155	.26906
Stddev	.00009	.59	.00010	.0154	.00035
%RSD	33.854	.36754	9.2769	99.60	.12897

#1	.00032	160.70	.00114	-.0046	.26931
#2	.00019	159.86	.00100	-.0264	.26882

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01909	.00442	21.079	14.780	.01894
Stddev	.00041	.00025	.134	.034	.00042
%RSD	2.1525	5.5613	.63488	.23129	2.1951

#1	.01938	.00425	21.174	14.804	.01924
#2	.01880	.00460	20.984	14.755	.01865

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-1-D Acquired: 11/1/2018 1:35:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.242	7.7382	.00408	F 1279.1	.13252
Stddev	.059	.0199	.00015	4.1	.00059
%RSD	.22500	.25769	3.5942	.32325	.44393

#1	26.200	7.7241	.00419	1282.0	.13211
#2	26.283	7.7523	.00398	1276.1	.13294

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00229	.5237	.00285	-.00352	4.1923
Stddev	.00016	.0006	.00014	.00117	.0553
%RSD	6.8616	.1109	4.8276	33.087	1.3179

#1	.00241	.5241	.00275	-.00270	4.2314
#2	.00218	.5233	.00294	-.00435	4.1532

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.54011	.00084	-.00298	.00005
Stddev	.00009	.00298	.00074	.00111	.00011
%RSD	36.369	.55241	87.364	37.415	223.74

#1	-.00018	.54222	.00136	-.00219	-.00003
#2	-.00030	.53800	.00032	-.00377	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-1-D Acquired: 11/1/2018 1:35:12 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.15241**
 Stddev .00164
 %RSD 1.0778

#1 **.15125**
 #2 **.15357**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2099.8	3769.2	109030.	7130.2
Stddev	3.0	.7	102.	25.7
%RSD	.14494	.01856	.09376	.36065

#1	2097.6	3768.7	109100.	7112.0
#2	2101.9	3769.7	108950.	7148.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.940%	91.371%	83.454%	90.059%
Range				

Sample Name: 480-144100-A-2-D Acquired: 11/1/2018 1:39:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	.19042	.00069	.03475	.75202
Stddev	.00030	.00337	.00110	.00031	.00097
%RSD	58.954	1.7718	159.96	.87818	.12856

#1	-.00029	.18804	.00146	.03497	.75271
#2	-.00072	.19281	-.00009	.03453	.75134

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	153.09	.00120	.0236	.07712
Stddev	.00007	.26	.00013	.0040	.00008
%RSD	23.689	.16937	10.717	17.08	.10914

#1	.00037	153.28	.00129	.0208	.07718
#2	.00026	152.91	.00111	.0265	.07706

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00478	.00060	5.2451	13.136	.01616
Stddev	.00025	.00017	.0108	.013	.00094
%RSD	5.1675	27.853	.20582	.09541	5.8425

#1	.00495	.00048	5.2527	13.127	.01549
#2	.00460	.00071	5.2374	13.144	.01683

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-2-D Acquired: 11/1/2018 1:39:16 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.287	7.5498	.00008	F 1356.2	.07735
Stddev	.032	.0037	.00019	3.5	.00004
%RSD	.12286	.04894	238.60	.25704	.05286

#1	26.264	7.5472	.00022	1358.6	.07732
#2	26.310	7.5524	-.00006	1353.7	.07738

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00249	2.138	-.00002	-.00701	7.6460
Stddev	.00185	.013	.00087	.00214	.0109
%RSD	74.342	.6181	5244.7	30.558	.14195

#1	.00118	2.128	.00060	-.00549	7.6383
#2	.00379	2.147	-.00063	-.00852	7.6537

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.55318	.00170	-.00212	-.00011
Stddev	.00120	.00113	.00008	.00077	.00035
%RSD	1667.7	.20341	4.6124	36.127	326.06

#1	.00092	.55397	.00165	-.00158	.00014
#2	-.00077	.55238	.00176	-.00266	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-2-D Acquired: 11/1/2018 1:39:16 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.07264**
 Stddev .00045
 %RSD .62191

#1 **.07232**
 #2 **.07296**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2101.0	3775.3	108840.	7160.1
Stddev	1.4	6.2	365.	33.8
%RSD	.06670	.16291	.33525	.47179

#1	2100.0	3779.6	109100.	7136.2
#2	2102.0	3770.9	108580.	7183.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.984%	91.520%	83.312%	90.436%
Range				

Sample Name: 480-144100-A-5-D Acquired: 11/1/2018 1:43:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	.11895	.00275	.01399	.56457
Stddev	.00009	.01058	.00513	.00002	.00083
%RSD	19.465	8.8942	186.52	.14525	.14706

#1	-.00054	.12643	.00638	.01397	.56398
#2	-.00041	.11147	-.00088	.01400	.56516

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	117.88	.00097	.0115	.06055
Stddev	.00008	.35	.00009	.0127	.00008
%RSD	26.412	.29731	9.7520	110.4	.13104

#1	.00023	118.12	.00090	.0025	.06049
#2	.00034	117.63	.00103	.0205	.06061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00704	.00013	4.5192	9.6622	.00889
Stddev	.00050	.00043	.0152	.0097	.00113
%RSD	7.1153	319.94	.33713	.10042	12.773

#1	.00739	.00044	4.5299	9.6690	.00969
#2	.00669	-.00017	4.5084	9.6553	.00808

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-5-D Acquired: 11/1/2018 1:43:21 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	32.438	4.8110	-0.00001	F 1352.3	.04534
Stddev	.064	.0391	.00009	7.9	.00042
%RSD	.19853	.81269	1235.0	.58272	.91954

#1	32.483	4.7833	-0.00007	1357.9	.04505
#2	32.392	4.8386	.00006	1346.8	.04564

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00145	1.255	.00001	-.00390	3.2151
Stddev	.00247	.000	.00124	.00391	.0326
%RSD	170.77	.0325	11195.	100.25	1.0145

#1	.00320	1.255	-0.00086	-.00114	3.2381
#2	-.00030	1.255	.00089	-.00667	3.1920

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.28324	-0.00030	-.00095	.00019
Stddev	.00077	.00114	.00051	.00092	.00002
%RSD	116.82	.40074	170.00	96.814	10.029

#1	.00121	.28405	-0.00066	-.00030	.00018
#2	.00011	.28244	.00006	-.00159	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-5-D Acquired: 11/1/2018 1:43:21 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.05118**
 Stddev .00023
 %RSD .45601

#1 .05134
 #2 .05101

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2115.1	3818.5	110060.	7246.0
Stddev	.5	.6	136.	27.6
%RSD	.02515	.01666	.12362	.38100

#1	2115.5	3818.9	110160.	7226.5
#2	2114.7	3818.0	109970.	7265.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	75.488%	92.566%	84.249%	91.522%
Range				

Sample Name: 480-144103-A-1-B Acquired: 11/1/2018 1:47:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.11539	.00476	1.2733	.04006
Stddev	.00004	.00638	.00043	.0010	.00004
%RSD	12.992	5.5310	9.0488	.08245	.10590

#1	-.00037	.11991	.00507	1.2740	.04009
#2	-.00031	.11088	.00446	1.2725	.04003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	1.0481	-.00013	-.0093	12.778
Stddev	.00002	.0011	.00004	.0203	.027
%RSD	30.899	.10248	34.154	217.2	.21082

#1	-.00005	1.0489	-.00016	.0050	12.797
#2	-.00008	1.0474	-.00010	-.0237	12.759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01316	.00169	.09643	1.4041	.00211
Stddev	.00005	.00035	.00209	.0876	.00028
%RSD	.35806	20.948	2.1683	6.2359	13.278

#1	.01319	.00144	.09791	1.3422	.00230
#2	.01312	.00194	.09495	1.4660	.00191

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144103-A-1-B Acquired: 11/1/2018 1:47:26 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.09409	.00415	-.00010	F 1528.0	.17141
Stddev	.00543	.00003	.00015	1.7	.00054
%RSD	5.7748	.60586	147.12	.11187	.31793

#1	.09025	.00413	.00000	1529.3	.17179
#2	.09793	.00416	-.00021	1526.8	.17102

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00160	.0196	.00033	-.00166	.97598
Stddev	.00136	.0009	.00130	.00401	.00252
%RSD	85.331	4.851	392.87	241.84	.25828

#1	-.00063	.0203	.00125	-.00449	.97776
#2	-.00256	.0189	-.00059	.00118	.97419

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.01654	.35109	-.00525	-.00023
Stddev	.00012	.00013	.00081	.00269	.00006
%RSD	24.109	.79500	.23163	51.257	23.909

#1	.00057	.01645	.35051	-.00715	-.00019
#2	.00040	.01663	.35166	-.00335	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144103-A-1-B Acquired: 11/1/2018 1:47:26 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02085**
 Stddev .00128
 %RSD 6.1415

#1 **.01995**
 #2 **.02176**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2167.1	3853.4	109620.	7195.3
Stddev	2.0	1.2	178.	1.3
%RSD	.09408	.03120	.16259	.01801

#1	2165.6	3852.6	109490.	7194.4
#2	2168.5	3854.3	109740.	7196.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.342%	93.413%	83.906%	90.881%
Range				

Sample Name: 480-144149-A-1-D Acquired: 11/1/2018 1:51:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.12336	.00257	.04823	.31737
Stddev	.00055	.02228	.00044	.00019	.00044
%RSD	598.67	18.060	17.098	.39689	.13860

#1	.00030	.13912	.00289	.04810	.31706
#2	-.00048	.10761	.00226	.04837	.31768

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	273.71	.00088	.0255	.02349
Stddev	.00000	.45	.00013	.0049	.00052
%RSD	4.0709	.16598	14.710	19.32	2.2131

#1	.00008	274.03	.00079	.0290	.02385
#2	.00007	273.39	.00097	.0220	.02312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.00169	.05280	4.3646	.00806
Stddev	.00012	.00012	.00035	.0508	.00023
%RSD	19.789	6.9013	.66439	1.1631	2.7943

#1	.00069	.00161	.05255	4.3287	.00822
#2	.00052	.00177	.05305	4.4005	.00790

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144149-A-1-D Acquired: 11/1/2018 1:51:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	104.86	3.6625	-0.00022	F 1470.0	.01368
Stddev	.09	.0031	.00024	.3	.00012
%RSD	.08856	.08318	110.11	.01988	.87103

#1	104.92	3.6646	-0.00039	1470.2	.01359
#2	104.79	3.6603	-0.00005	1469.8	.01376

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	1.460	-0.00054	-0.00390	1.7841
Stddev	.00083	.007	.00254	.00243	.0253
%RSD	297.85	.4564	474.74	62.315	1.4197

#1	.00086	1.465	.00126	-.00218	1.7662
#2	-.00031	1.456	-.00233	-.00562	1.8020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.36532	.00051	.00062	-0.00069
Stddev	.00066	.00019	.00004	.00078	.00030
%RSD	91.879	.05315	8.4302	124.71	43.582

#1	.00118	.36519	.00054	.00007	-.00048
#2	.00025	.36546	.00048	.00117	-.00090

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144149-A-1-D Acquired: 11/1/2018 1:51:20 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.04599**
 Stddev .00042
 %RSD .91790

#1 **.04569**
 #2 **.04629**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2050.8	3697.7	107040.	7107.4
Stddev	2.8	5.0	81.	19.1
%RSD	.13817	.13490	.07536	.26839

#1	2048.8	3694.2	107100.	7093.9
#2	2052.8	3701.2	106990.	7120.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	73.193%	89.639%	81.937%	89.771%
Range				

Sample Name: 480-144163-B-1-C Acquired: 11/1/2018 1:55:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.04058	.00388	.03948	.51437
Stddev	.00047	.00002	.00011	.00037	.00205
%RSD	67.474	.05420	2.8457	.94946	.39862

#1	-.00103	.04056	.00380	.03921	.51582
#2	-.00036	.04060	.00396	.03974	.51292

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	629.85	.00575	-.0171	.02026
Stddev	.00005	.46	.00014	.0097	.00020
%RSD	161.98	.07262	2.4137	56.35	.97512

#1	-.00007	630.17	.00585	-.0103	.02040
#2	.00000	629.52	.00566	-.0240	.02012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00096	.02618	.14317	3.3214	.00743
Stddev	.00020	.00020	.00380	.1041	.00028
%RSD	21.463	.75703	2.6510	3.1353	3.7045

#1	.00081	.02604	.14585	3.2477	.00763
#2	.00110	.02632	.14049	3.3950	.00724

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144163-B-1-C Acquired: 11/1/2018 1:55:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	52.715	1.2058	.00103	F 1517.9	.01831
Stddev	.012	.0007	.00010	1.9	.00010
%RSD	.02197	.05956	9.6926	.12194	.53417

#1	52.723	1.2063	.00096	1519.2	.01838
#2	52.707	1.2053	.00110	1516.6	.01824

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00290	1.040	.00035	-.00588	.83494
Stddev	.00070	.001	.00210	.00080	.01130
%RSD	24.246	.0954	596.84	13.557	1.3535

#1	-.00340	1.039	-.00113	-.00645	.82695
#2	-.00240	1.040	.00184	-.00532	.84294

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00146	1.8651	-.00065	.00049	-.00063
Stddev	.00029	.0045	.00029	.00095	.00016
%RSD	19.883	.23993	45.043	195.81	25.298

#1	.00126	1.8682	-.00044	-.00019	-.00074
#2	.00167	1.8619	-.00085	.00116	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144163-B-1-C Acquired: 11/1/2018 1:55:14 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.77922**
 Stddev .00400
 %RSD .51360

#1 **.78205**
 #2 **.77639**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2003.7	3627.0	105540.	6995.1
Stddev	3.6	11.9	46.	9.7
%RSD	.17876	.32897	.04389	.13883

#1	2001.1	3618.6	105570.	6988.3
#2	2006.2	3635.4	105500.	7002.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	71.510%	87.924%	80.783%	88.353%
Range				

Sample Name: 480-144284-A-1-C Acquired: 11/1/2018 1:59:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.01017	.01551	.14826	.04474
Stddev	.00016	.03617	.00096	.00028	.00022
%RSD	36.764	355.84	6.1830	.18638	.48412

#1	-.00054	.03575	.01483	.14845	.04489
#2	-.00032	-.01541	.01619	.14806	.04458

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	713.25	.00028	-.0173	.00681
Stddev	.00009	4.59	.00013	.0166	.00004
%RSD	81.140	.64366	47.260	95.98	.59727

#1	-.00018	710.00	.00037	-.0055	.00678
#2	-.00005	716.49	.00018	-.0290	.00683

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.00239	.01009	1.5296	.00854
Stddev	.00003	.00066	.00020	.0720	.00034
%RSD	3.9639	27.602	1.9923	4.7096	3.9342

#1	.00065	.00285	.00995	1.4787	.00877
#2	.00069	.00192	.01023	1.5805	.00830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144284-A-1-C Acquired: 11/1/2018 1:59:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.928	3.0329	.00177	F 1502.4	.06126
Stddev	.012	.0020	.00009	1.0	.00015
%RSD	.07288	.06582	5.0256	.06756	.24798

#1	15.936	3.0314	.00171	1503.1	.06115
#2	15.919	3.0343	.00183	1501.7	.06137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00296	15.10	.00102	-.00652	6.1825
Stddev	.00082	.03	.00015	.00409	.0239
%RSD	27.776	.1876	14.293	62.836	.38737

#1	-.00355	15.12	.00112	-.00362	6.1656
#2	-.00238	15.08	.00092	-.00941	6.1995

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.45238	-.00129	-.00032	-.00005
Stddev	.00020	.00031	.00027	.00004	.00040
%RSD	30.880	.06748	20.924	11.502	768.05

#1	.00077	.45259	-.00149	-.00030	.00023
#2	.00050	.45216	-.00110	-.00035	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144284-A-1-C Acquired: 11/1/2018 1:59:19 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01344**
 Stddev .00124
 %RSD 9.2260

#1 **.01257**
 #2 **.01432**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2019.2	3637.6	107420.	7204.9
Stddev	1.3	2.0	359.	7.3
%RSD	.06428	.05576	.33414	.10177

#1	2020.1	3639.0	107680.	7210.1
#2	2018.3	3636.1	107170.	7199.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.064%	88.180%	82.226%	91.002%
Range				

Sample Name: 480-144100-A-6-D Acquired: 11/1/2018 2:03:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	.55855	.00389	.03313	.70331
Stddev	.00002	.04377	.00030	.00058	.00014
%RSD	5.1143	7.8359	7.7332	1.7641	.02061

#1	-.00036	.52760	.00411	.03271	.70342
#2	-.00039	.58950	.00368	.03354	.70321

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ba4554-2	Be3130	Ca3179	Cd2288	**Ce4040
Line	455.403 { 74}2	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}
IS Ref	(Y_3600)	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.68091	.00031	262.29	.00134	.0222
Stddev	.00267	.00005	.00	.00000	.0120
%RSD	.39188	17.385	.00101	.32446	53.99

#1	.68280	.00034	262.29	.00133	.0307
#2	.67903	.00027	262.29	.00134	.0137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.25890	.07866	.30123	26.351	9.4115
Stddev	.00019	.00053	.00079	.006	.0050
%RSD	.07195	.67978	.26169	.02387	.05272

#1	.25903	.07828	.30068	26.347	9.4150
#2	.25877	.07904	.30179	26.356	9.4080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-6-D Acquired: 11/1/2018 2:03:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183
Line	670.784 { 50}	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}
IS Ref	(Y_3774)	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01441	24.658	3.1747	.01039	F 1430.5
Stddev	.00014	.033	.0031	.00006	.7
%RSD	.96834	.13237	.09827	.54879	.04578

#1	.01432	24.635	3.1725	.01043	1430.1
#2	.01451	24.681	3.1769	.01035	1431.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					900.00
Low Limit					-1.0000

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.16191	.00110	4.701	-.00124	-.00869
Stddev	.00015	.00175	.001	.00074	.00331
%RSD	.09478	158.50	.0121	59.221	38.167

#1	.16201	-.00013	4.701	-.00176	-.01103
#2	.16180	.00234	4.700	-.00072	-.00634

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Si2881	Sn1899	Sr4077	Ti3349	Tl1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.216	.00060	.66643	.00183	-.00076
Stddev	.281	.00075	.00097	.00007	.00061
%RSD	1.5436	126.06	.14482	3.9555	80.907

#1	18.414	.00113	.66712	.00178	-.00032
#2	18.017	.00006	.66575	.00188	-.00119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144100-A-6-D Acquired: 11/1/2018 2:03:18 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	-.00026	.26814
Stddev	.00004	.00124
%RSD	15.439	.46381

#1	-.00023	.26902
#2	-.00029	.26726

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2092.7	3799.7	110080.	7299.4
Stddev	.8	.4	287.	9.0
%RSD	.04020	.00982	.26106	.12334

#1	2092.1	3800.0	110290.	7293.0
#2	2093.3	3799.5	109880.	7305.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	74.688%	92.112%	84.264%	92.196%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 2:07:14 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50238	24.451	F .44072	F .43504	.50172	.49756	24.305
Stddev	.00034	.135	.00102	.00013	.00323	.00117	.082
%RSD	.06767	.55272	.23142	.02894	.64354	.23580	.33591

#1	.50262	24.547	.44144	.43495	.50400	.49839	24.362
#2	.50214	24.356	.44000	.43513	.49943	.49673	24.247

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45615	.0012	.48402	.51370	.50237	24.813	25.536
Stddev	.00083	.0259	.00120	.00039	.00037	.056	.043
%RSD	.18303	2235.	.24841	.07645	.07373	.22419	.16921

#1	.45556	-.0171	.48317	.51342	.50263	24.852	25.566
#2	.45674	.0195	.48487	.51398	.50211	24.774	25.505

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49093	24.298	.52548	F .44848	26.662	.51102	.47536
Stddev	.00185	.013	.00020	.00060	.085	.00198	.00286
%RSD	.37638	.05471	.03735	.13337	.31965	.38754	.60162

#1	.49224	24.308	.52561	.44806	26.723	.50962	.47334
#2	.48963	24.289	.52534	.44890	26.602	.51242	.47738

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Sample Name: CCV-4954075 Acquired: 11/1/2018 2:07:14 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.41	.45701	.46795	23.672	.49168	.54149	.50153
Stddev	.02	.00083	.00083	.121	.00113	.00073	.00058
%RSD	.0718	.18096	.17657	.51163	.23062	.13483	.11605

#1	22.42	.45642	.46736	23.757	.49249	.54200	.50194
#2	22.39	.45759	.46853	23.586	.49088	.54097	.50112

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	-10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46338	.52210	.48280
Stddev	.00060	.00021	.00048
%RSD	.12867	.04041	.09995

#1	.46296	.52195	.48246
#2	.46380	.52224	.48314

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2621.7	4256.9	126020.	7630.9
Stddev	.8	1.8	144.	20.7
%RSD	.03071	.04328	.11440	.27125

#1	2622.2	4255.6	126130.	7616.2
#2	2621.1	4258.2	125920.	7645.5

Sample Name: CCB-4957862 Acquired: 11/1/2018 2:10:57 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00665	-.00015	-.00035	-.00001	-.00001	.01154	.00006
Stddev	.00016	.01982	.00247	.00014	.00000	.00013	.00273	.00004
%RSD	281.73	298.00	1600.4	39.532	44.275	1781.8	23.690	68.895

#1	.00017	-.02066	.00159	-.00045	-.00001	.00009	.01347	.00009
#2	-.00005	.00736	-.00190	-.00025	-.00001	-.00010	.00960	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015	.00003	.00012	-.00210	.00218	.03818	.00061	-.00241
Stddev	.0067	.00015	.00013	.00045	.00384	.01765	.00170	.00263
%RSD	436.5	542.94	107.84	21.613	176.12	46.234	280.46	109.25

#1	-.0032	.00013	.00021	-.00242	-.00053	.02570	-.00060	-.00055
#2	.0063	-.00008	.00003	-.00177	.00489	.05066	.00181	-.00427

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00036	.50015	.00015	.00022	.0124	-.00102	-.00119
Stddev	.00007	.00004	.00164	.00019	.00013	.0014	.00021	.00040
%RSD	74.564	10.085	.32752	125.94	60.745	11.23	20.633	33.278

#1	.00013	.00039	.49900	.00002	.00031	.0134	-.00117	-.00147
#2	.00004	.00034	.50131	.00028	.00012	.0114	-.00088	-.00091

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 2:10:57 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03326	-.00114	-.00004	.00006	-.00019	.00007	.00075
Stddev	.00910	.00024	.00000	.00006	.00023	.00008	.00019
%RSD	27.374	21.286	7.8183	94.918	124.01	108.68	25.022

#1	-.02682	-.00131	-.00004	.00002	-.00036	.00002	.00061
#2	-.03970	-.00097	-.00005	.00010	-.00002	.00013	.00088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2774.6	4362.5	128690.	7631.8
Stddev	.0	8.5	390.	47.3
%RSD	.00107	.19380	.30293	.61976

#1	2774.6	4368.4	128970.	7598.4
#2	2774.7	4356.5	128420.	7665.3

Sample Name: CCVL-4970377 Acquired: 11/1/2018 2:14:49 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00603	.18549	.01487	.01779	.00204	.00188	.50382
Stddev	.00002	.01938	.00009	.00061	.00003	.00007	.00208
%RSD	.31543	10.446	.57882	3.4063	1.4892	3.7539	.41301
#1	.00604	.19919	.01481	.01822	.00206	.00193	.50529
#2	.00601	.17179	.01493	.01736	.00201	.00183	.50235

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00203	-.0177	.00389	.00431	.00804	.05200	.48026
Stddev	.00003	.0103	.00004	.00002	.00027	.00059	.02587
%RSD	1.6403	57.81	.90540	.52028	3.3837	1.1331	5.3857
#1	.00205	-.0105	.00392	.00429	.00824	.05158	.49855
#2	.00200	-.0250	.00387	.00433	.00785	.05241	.46197

Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02771	.20106	.00323	.00873	W 1.3741	.01041	.01064
Stddev	.00029	.00062	.00003	.00014	.0149	.00011	.00098
%RSD	1.0544	.30892	.88536	1.5690	1.0812	1.0675	9.1900
#1	.02791	.20150	.00325	.00864	1.3846	.01049	.01133
#2	.02750	.20063	.00321	.00883	1.3636	.01033	.00995

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn 1.0000 30.000%	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 11/1/2018 2:14:49 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1828	.01687	.02240	.42119	.00910	.00506	.00448
Stddev	.0042	.00128	.00132	.01105	.00036	.00008	.00016
%RSD	2.317	7.6001	5.8699	2.6229	3.9926	1.5683	3.5041
#1	.1858	.01777	.02333	.41337	.00935	.00500	.00437
#2	.1798	.01596	.02147	.42900	.00884	.00511	.00459

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.01911	.00484	.01072
Stddev	.00009	.00011	.00063
%RSD	.46767	2.2208	5.9171
#1	.01917	.00491	.01027
#2	.01905	.00476	.01117

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.8	4364.3	129040.	7676.7
Stddev	3.2	3.3	341.	7.8
%RSD	.11537	.07555	.26408	.10200
#1	2765.5	4361.9	129280.	7682.2
#2	2770.0	4366.6	128800.	7671.1

Sample Name: MB 480-442160/1-A Acquired: 11/1/2018 2:18:40 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.04234	-.00081	-.00007	.00011
Stddev	.00001	.01691	.00023	.00012	.00000
%RSD	4.5929	39.940	28.757	171.40	1.5337

#1	-.00020	.03038	-.00065	-.00015	.00011
#2	-.00022	.05430	-.00098	.00001	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.01241	.00005	-.0002	.00006
Stddev	.00002	.00290	.00010	.0140	.00014
%RSD	13.254	23.399	178.39	7700.	248.59

#1	-.00014	.01446	-.00001	.0097	.00015
#2	-.00011	.01036	.00012	-.0101	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00168	.00216	-.00999	.00050
Stddev	.00001	.00003	.00179	.00716	.00000
%RSD	7.7906	2.0792	82.984	71.647	.40965

#1	.00017	-.00166	.00342	-.01505	.00050
#2	.00015	-.00171	.00089	-.00493	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-442160/1-A Acquired: 11/1/2018 2:18:40 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00320	.00030	-.00022	.34247	-.00014
Stddev	.00170	.00001	.00004	.00331	.00010
%RSD	53.287	3.4264	17.640	.96576	70.285

#1	-.00199	.00029	-.00025	.34481	-.00007
#2	-.00440	.00031	-.00019	.34013	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00072	.0138	-.00228	.00109	-.04738
Stddev	.00078	.0009	.00070	.00122	.01499
%RSD	108.55	6.892	30.806	111.84	31.631

#1	.00127	.0131	-.00278	.00195	-.05797
#2	.00017	.0144	-.00179	.00023	-.03678

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00088	-.00016	.00007	.00019	-.00035
Stddev	.00007	.00002	.00017	.00034	.00018
%RSD	8.0826	14.045	235.77	180.47	52.822

#1	-.00083	-.00014	.00019	-.00005	-.00022
#2	-.00093	-.00018	-.00005	.00042	-.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-442160/1-A Acquired: 11/1/2018 2:18:40 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00198**
 Stddev .00028
 %RSD 14.016

#1 **.00218**
 #2 **.00179**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2777.3	4377.6	129930.	7726.0
Stddev	.1	2.8	37.	6.9
%RSD	.00443	.06440	.02861	.08952

#1	2777.4	4375.6	129910.	7730.9
#2	2777.2	4379.6	129960.	7721.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.121%	106.12%	99.457%	97.585%
Range				

Sample Name: LCS 480-442160/2-A Acquired: 11/1/2018 2:22:32 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04851	9.8041	.17728	.18198	.20126
Stddev	.00056	.0784	.00197	.00036	.00034
%RSD	1.1478	.80005	1.1126	.19918	.16717

#1	.04812	9.8595	.17589	.18224	.20103
#2	.04890	9.7486	.17868	.18172	.20150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20056	9.4475	.18356	-.0052	.18635
Stddev	.00080	.0248	.00004	.0137	.00056
%RSD	.39731	.26242	.02190	266.3	.29888

#1	.20113	9.4651	.18354	-.0149	.18675
#2	.20000	9.4300	.18359	.0046	.18596

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20177	.19094	9.7603	9.6614	.19049
Stddev	.00061	.00042	.0201	.0124	.00264
%RSD	.30355	.22088	.20637	.12792	1.3861

#1	.20221	.19124	9.7746	9.6701	.19235
#2	.20134	.19065	9.7461	9.6526	.18862

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-442160/2-A Acquired: 11/1/2018 2:22:32 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.6561	.20091	.17317	10.267	.20496
Stddev	.0027	.00042	.00007	.023	.00013
%RSD	.02791	.20731	.04187	.22307	.06457

#1	9.6580	.20062	.17312	10.283	.20505
#2	9.6542	.20120	.17322	10.251	.20486

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18518	8.773	.17798	.18550	9.1858
Stddev	.00222	.001	.00030	.00248	.0136
%RSD	1.1968	.0085	.17110	1.3372	.14817

#1	.18675	8.773	.17777	.18374	9.1762
#2	.18361	8.774	.17820	.18725	9.1954

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19019	.21234	.19274	.18483	.20384
Stddev	.00104	.00092	.00056	.00106	.00076
%RSD	.54469	.43436	.29256	.57360	.37120

#1	.18945	.21299	.19234	.18558	.20331
#2	.19092	.21169	.19314	.18408	.20438

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-442160/2-A Acquired: 11/1/2018 2:22:32 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.19920**
Stddev .00177
%RSD .88916

#1 **.20045**
#2 **.19794**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2692.4	4301.3	127100.	7691.6
Stddev	1.5	5.8	117.	28.1
%RSD	.05605	.13387	.09194	.36537

#1	2691.3	4297.2	127190.	7671.7
#2	2693.4	4305.4	127020.	7711.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.090%	104.27%	97.292%	97.149%
Range				

Sample Name: 460-166941-E-10-D Acquired: 11/1/2018 2:26:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	.00455	.00152	1.1529	.41090
Stddev	.00014	.01707	.00086	.0053	.00063
%RSD	21.041	375.35	56.191	.45718	.15382

#1	-.00079	.01662	.00092	1.1567	.41135
#2	-.00058	-.00752	.00213	1.1492	.41046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	427.19	.00022	-.0086	-.00036
Stddev	.00005	1.37	.00006	.0099	.00015
%RSD	57.349	.32111	25.254	115.6	41.596

#1	.00013	428.16	.00026	-.0156	-.00046
#2	.00006	426.22	.00018	-.0016	-.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	-.00092	2.0642	18.221	.03701
Stddev	.00004	.00014	.0093	.004	.00024
%RSD	6.8175	15.382	.45141	.02372	.65822

#1	.00064	-.00102	2.0708	18.224	.03718
#2	.00058	-.00082	2.0576	18.218	.03684

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-10-D Acquired: 11/1/2018 2:26:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	144.76	2.5920	.00029	F 1408.1	-.00011
Stddev	.26	.0094	.00021	9.2	.00012
%RSD	.17882	.36273	71.272	.65380	103.88

#1	144.58	2.5853	.00043	1414.6	-.00020
#2	144.94	2.5986	.00014	1401.5	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	11.24	-.00025	-.00984	16.516
Stddev	.00053	.06	.00036	.00002	.049
%RSD	67.193	.5122	142.32	.17906	.29660

#1	-.00042	11.28	.00000	-.00983	16.551
#2	-.00117	11.20	-.00051	-.00985	16.481

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00098	5.7676	-.00060	.00083	-.00090
Stddev	.00178	.0143	.00021	.00203	.00015
%RSD	181.23	.24725	34.243	244.22	16.636

#1	.00028	5.7777	-.00046	.00227	-.00101
#2	-.00224	5.7575	-.00075	-.00061	-.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-10-D Acquired: 11/1/2018 2:26:12 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00243**
 Stddev .00121
 %RSD 49.966

#1 **.00329**
 #2 **.00157**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2033.9	3669.5	107080.	7103.0
Stddev	1.0	17.3	411.	18.7
%RSD	.04736	.47197	.38361	.26361

#1	2034.6	3657.3	107370.	7089.8
#2	2033.2	3681.8	106790.	7116.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.589%	88.956%	81.968%	89.716%
Range				

Sample Name: 480-144049-B-2-A Acquired: 11/1/2018 2:30:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.08922	.01784	.02716	.02194
Stddev	.00013	.00061	.00081	.00019	.00000
%RSD	35.252	.68207	4.5343	.68189	.00130

#1	-.00027	.08965	.01841	.02729	.02194
#2	-.00045	.08879	.01727	.02703	.02194

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	38.657	.00021	-.0303	.00136
Stddev	.00014	.018	.00008	.0027	.00001
%RSD	126.64	.04633	36.392	8.911	.52475

#1	-.00021	38.644	.00016	-.0322	.00136
#2	-.00001	38.669	.00026	-.0284	.00137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00038	-.00096	.98662	4.6490	.00162
Stddev	.00035	.00023	.00225	.0302	.00051
%RSD	92.618	24.285	.22843	.64906	31.385

#1	.00013	-.00080	.98503	4.6703	.00198
#2	.00062	-.00113	.98821	4.6276	.00126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-2-A Acquired: 11/1/2018 2:30:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.2962	.80510	.00010	12.067	.00131
Stddev	.0052	.00058	.00004	.042	.00021
%RSD	.15771	.07146	39.675	.34949	16.277

#1	3.2925	.80551	.00012	12.037	.00146
#2	3.2998	.80469	.00007	12.097	.00116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	8.169	-.00176	-.00029	5.1770
Stddev	.00085	.003	.00114	.00179	.0041
%RSD	305.25	.0366	64.992	619.83	.07873

#1	-.00032	8.171	-.00095	-.00156	5.1799
#2	.00088	8.167	-.00256	.00098	5.1741

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00049	.13560	.00003	.00085	.00029
Stddev	.00021	.00065	.00019	.00109	.00044
%RSD	43.281	.47814	643.84	128.33	152.62

#1	-.00034	.13515	-.00011	.00008	.00060
#2	-.00064	.13606	.00017	.00163	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-2-A Acquired: 11/1/2018 2:30:18 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00281**
 Stddev .00043
 %RSD 15.388

#1 **.00251**
 #2 **.00312**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2682.6	4247.4	127310.	7657.7
Stddev	.3	2.5	100.	11.6
%RSD	.01176	.05969	.07867	.15186

#1	2682.8	4245.6	127240.	7649.5
#2	2682.3	4249.2	127380.	7666.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.740%	102.96%	97.453%	96.722%
Range				

Sample Name: 480-144049-B-3-A Acquired: 11/1/2018 2:34:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00242	.00308	.11404	.05429
Stddev	.00042	.01388	.00184	.00011	.00003
%RSD	534.43	574.25	59.824	.09971	.06171

#1	-.00022	-.00740	.00439	.11396	.05427
#2	.00038	.01223	.00178	.11412	.05432

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	38.641	.00036	-.0122	.00300
Stddev	.00000	.005	.00014	.0169	.00026
%RSD	5.8151	.01356	39.855	138.8	8.5483

#1	-.00006	38.645	.00046	-.0241	.00318
#2	-.00006	38.637	.00026	-.0002	.00281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00026	.21356	11.571	.00156
Stddev	.00010	.00017	.00175	.022	.00001
%RSD	38.297	65.418	.81814	.18644	.63227

#1	.00019	.00037	.21232	11.587	.00155
#2	.00032	.00014	.21479	11.556	.00156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-A Acquired: 11/1/2018 2:34:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.4685	.58584	.00540	71.040	.00364
Stddev	.0295	.00262	.00008	.370	.00045
%RSD	.84997	.44668	1.5619	.52030	12.258

#1	3.4893	.58769	.00546	70.779	.00396
#2	3.4476	.58399	.00534	71.301	.00333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	6.889	-.00147	-.00379	3.1951
Stddev	.00106	.016	.00020	.00013	.0086
%RSD	729.11	.2352	13.585	3.3994	.26828

#1	.00089	6.900	-.00162	-.00370	3.2011
#2	-.00060	6.877	-.00133	-.00388	3.1890

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.14451	-.00045	.00131	.00048
Stddev	.00056	.00066	.00000	.00100	.00042
%RSD	228.68	.45635	.54525	76.647	87.260

#1	.00015	.14404	-.00045	.00060	.00077
#2	-.00064	.14497	-.00045	.00202	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-A Acquired: 11/1/2018 2:34:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.01485**
Stddev .00004
%RSD .29261

#1 **.01482**
#2 **.01488**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2602.7	4220.1	124140.	7600.3
Stddev	4.2	12.6	822.	32.0
%RSD	.15967	.29877	.66189	.42103

#1	2599.8	4211.1	123560.	7622.9
#2	2605.7	4229.0	124720.	7577.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.891%	102.30%	95.021%	95.996%
Range				

Sample Name: 480-144049-B-3-Asd@5 Acquired: 11/1/2018 2:37:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.01014	.00088	.02207	.01093
Stddev	.00004	.00940	.00179	.00034	.00002
%RSD	9.9345	92.666	203.18	1.5244	.15976

#1	-.00040	.01679	.00215	.02183	.01094
#2	-.00034	.00350	-.00038	.02230	.01092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	7.8205	.00006	-.0147	.00077
Stddev	.00003	.0367	.00008	.0098	.00008
%RSD	34.606	.46904	132.48	66.16	10.367

#1	-.00006	7.8465	.00000	-.0078	.00083
#2	-.00010	7.7946	.00011	-.0216	.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	-.00102	.04332	2.1985	.00061
Stddev	.00003	.00021	.00005	.0166	.00071
%RSD	63.986	20.941	.11368	.75451	116.01

#1	-.00003	-.00117	.04328	2.2102	.00011
#2	-.00008	-.00087	.04335	2.1867	.00111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-Asd@5 Acquired: 11/1/2018 2:37:53 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.69388	.11902	.00096	14.241	.00079
Stddev	.00318	.00005	.00029	.059	.00013
%RSD	.45835	.04600	29.931	.41281	16.374

#1	.69163	.11898	.00116	14.283	.00089
#2	.69613	.11906	.00076	14.199	.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00097	1.335	-.00177	-.00168	.60741
Stddev	.00042	.002	.00064	.00329	.00459
%RSD	43.616	.1538	36.245	195.63	.75587

#1	.00127	1.336	-.00222	-.00400	.61065
#2	.00067	1.333	-.00131	.00064	.60416

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.02868	-.00046	.00028	-.00002
Stddev	.00050	.00003	.00036	.00145	.00031
%RSD	180.36	.10175	78.212	524.04	1376.6

#1	.00008	.02870	-.00072	-.00075	.00019
#2	-.00063	.02866	-.00021	.00130	-.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-Asd@5 Acquired: 11/1/2018 2:37:53 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00375**
 Stddev .00004
 %RSD 1.1666

#1 **.00372**
 #2 **.00378**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2732.9	4328.7	127290.	7582.5
Stddev	2.8	6.0	183.	33.0
%RSD	.10138	.13841	.14372	.43579

#1	2730.9	4324.5	127160.	7559.1
#2	2734.8	4332.9	127420.	7605.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.536%	104.93%	97.436%	95.771%
Range				

Sample Name: 480-144049-B-3-Apds Acquired: 11/1/2018 2:41:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04941	9.7726	.18542	.29359	.24989
Stddev	.00024	.0837	.00144	.00024	.00083
%RSD	.48297	.85670	.77796	.08165	.33371

#1	.04925	9.8318	.18440	.29342	.25048
#2	.04958	9.7134	.18644	.29376	.24930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20445	46.999	.18553	-.0247	.19303
Stddev	.00104	.057	.00008	.0034	.00009
%RSD	.50957	.12046	.04240	13.87	.04820

#1	.20372	46.959	.18547	-.0223	.19309
#2	.20519	47.039	.18558	-.0272	.19296

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20279	.19451	10.007	21.583	.19897
Stddev	.00109	.00009	.010	.126	.00176
%RSD	.53639	.04648	.10111	.58565	.88399

#1	.20356	.19445	9.9999	21.494	.19772
#2	.20202	.19457	10.014	21.673	.20021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-Apds Acquired: 11/1/2018 2:41:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.979	.76579	.17933	79.336	.21295
Stddev	.011	.00068	.00003	.293	.00103
%RSD	.08154	.08826	.01911	.36894	.48410

#1	12.971	.76627	.17936	79.543	.21367
#2	12.986	.76531	.17931	79.129	.21222

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18910	15.70	.17890	.18701	12.844
Stddev	.00011	.00	.00114	.00130	.015
%RSD	.05968	.0172	.63558	.69651	.11552

#1	.18902	15.70	.17971	.18609	12.834
#2	.18918	15.70	.17810	.18793	12.855

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19416	.35196	.19586	.18635	.20691
Stddev	.00021	.00022	.00002	.00084	.00165
%RSD	.10712	.06348	.01184	.45260	.79775

#1	.19402	.35212	.19584	.18695	.20808
#2	.19431	.35180	.19587	.18576	.20574

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-Apds Acquired: 11/1/2018 2:41:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.21260**
Stddev .00220
%RSD 1.0351

#1 **.21415**
#2 **.21104**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2558.8	4211.8	123460.	7536.2
Stddev	2.6	.8	422.	5.5
%RSD	.10252	.02005	.34155	.07307

#1	2557.0	4211.2	123170.	7540.1
#2	2560.7	4212.4	123760.	7532.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.324%	102.10%	94.506%	95.187%
Range				

Sample Name: 480-144049-B-3-B MS Acquired: 11/1/2018 2:45:22 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04953	9.7882	.17849	.30215	.25500
Stddev	.00045	.0561	.00100	.00114	.00033
%RSD	.91222	.57292	.55827	.37699	.12815

#1	.04921	9.7486	.17778	.30295	.25477
#2	.04985	9.8279	.17919	.30134	.25523

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19975	48.919	.18086	-.0058	.18848
Stddev	.00003	.092	.00016	.0086	.00001
%RSD	.01368	.18848	.08826	148.7	.00596

#1	.19977	48.854	.18075	-.0119	.18847
#2	.19973	48.984	.18097	.0003	.18849

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19695	.18947	9.7193	22.328	.20148
Stddev	.00089	.00027	.0249	.030	.00032
%RSD	.45234	.14109	.25638	.13310	.15878

#1	.19632	.18966	9.7017	22.307	.20170
#2	.19758	.18928	9.7370	22.349	.20125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-B MS Acquired: 11/1/2018 2:45:22 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.888	.79234	.17569	82.712	.20702
Stddev	.014	.00147	.00011	.084	.00030
%RSD	.11080	.18592	.06258	.10177	.14331

#1	12.878	.79130	.17561	82.653	.20681
#2	12.898	.79338	.17576	82.772	.20723

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18405	16.09	.17591	.18408	12.563
Stddev	.00055	.01	.00147	.00135	.034
%RSD	.30050	.0525	.83527	.73409	.27235

#1	.18366	16.10	.17487	.18504	12.539
#2	.18444	16.09	.17695	.18313	12.588

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19514	.35887	.19051	.18254	.20138
Stddev	.00067	.00075	.00055	.00076	.00085
%RSD	.34190	.20963	.28670	.41527	.42285

#1	.19467	.35834	.19012	.18200	.20078
#2	.19562	.35940	.19089	.18307	.20198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-B MS Acquired: 11/1/2018 2:45:22 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21037**
 Stddev .00000
 %RSD .00003

#1 **.21037**
 #2 **.21037**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2550.2	4200.1	123090.	7544.6
Stddev	3.1	2.9	34.	19.6
%RSD	.12336	.07011	.02763	.26001

#1	2552.4	4198.0	123120.	7558.5
#2	2548.0	4202.2	123070.	7530.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.015%	101.82%	94.221%	95.293%
Range				

Sample Name: 480-144049-B-3-C MSD Acquired: 11/1/2018 2:49:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04760	9.5434	.18025	.29677	.24928
Stddev	.00020	.0078	.00063	.00000	.00017
%RSD	.41102	.08145	.34983	.00001	.06845

#1	.04746	9.5379	.17981	.29677	.24941
#2	.04774	9.5489	.18070	.29677	.24916

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20036	47.969	.18232	-.0240	.19020
Stddev	.00001	.059	.00042	.0149	.00014
%RSD	.00691	.12353	.22831	62.02	.07233

#1	.20036	47.927	.18262	-.0345	.19010
#2	.20037	48.011	.18203	-.0135	.19030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19887	.19103	9.7847	21.773	.19621
Stddev	.00061	.00060	.0325	.038	.00065
%RSD	.30919	.31156	.33247	.17677	.33146

#1	.19931	.19061	9.7617	21.745	.19575
#2	.19844	.19145	9.8077	21.800	.19667

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-C MSD Acquired: 11/1/2018 2:49:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.898	.78056	.17707	80.807	.20851
Stddev	.012	.00000	.00043	.368	.00007
%RSD	.09454	.00060	.24063	.45535	.03133

#1	12.890	.78055	.17737	80.547	.20856
#2	12.907	.78056	.17677	81.067	.20847

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18547	15.82	.17792	.18384	12.191
Stddev	.00037	.07	.00021	.00078	.046
%RSD	.19931	.4488	.11768	.42555	.37884

#1	.18520	15.87	.17777	.18329	12.158
#2	.18573	15.77	.17807	.18439	12.223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19042	.35064	.19147	.18399	.20210
Stddev	.00012	.00094	.00116	.00182	.00058
%RSD	.06270	.26669	.60561	.99133	.28538

#1	.19051	.34998	.19229	.18528	.20250
#2	.19034	.35130	.19065	.18270	.20169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-3-C MSD Acquired: 11/1/2018 2:49:01 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21325**
 Stddev .00077
 %RSD .36340

#1 **.21380**
 #2 **.21270**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2553.2	4197.7	123630.	7570.4
Stddev	2.6	2.6	277.	14.3
%RSD	.10368	.06177	.22412	.18940

#1	2555.0	4195.9	123440.	7560.3
#2	2551.3	4199.5	123830.	7580.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	91.121%	101.76%	94.635%	95.619%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 2:52:41 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49764	24.176	F .43733	F .43170	.49549	.49122	24.120
Stddev	.00026	.083	.00143	.00067	.00011	.00085	.047
%RSD	.05162	.34153	.32768	.15631	.02220	.17220	.19485

#1	.49745	24.118	.43835	.43122	.49541	.49062	24.087
#2	.49782	24.234	.43632	.43218	.49556	.49181	24.153

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45287	.0052	.47978	.51184	.49500	24.540	25.121
Stddev	.00009	.0278	.00065	.00085	.00040	.051	.078
%RSD	.02076	536.8	.13448	.16647	.08004	.20717	.31142

#1	.45293	.0248	.47932	.51244	.49528	24.504	25.066
#2	.45280	-.0145	.48024	.51123	.49472	24.576	25.176

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48507	24.154	.52182	F .44538	25.978	.50551	.47163
Stddev	.00027	.028	.00044	.00063	.002	.00070	.00106
%RSD	.05609	.11430	.08444	.14040	.00924	.13909	.22377

#1	.48526	24.173	.52151	.44582	25.976	.50502	.47088
#2	.48488	24.134	.52213	.44494	25.979	.50601	.47238

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Sample Name: CCV-4954075 Acquired: 11/1/2018 2:52:41 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.13	.45228	.46222	23.471	.48622	.53514	.49597
Stddev	.02	.00125	.00035	.107	.00034	.00027	.00006
%RSD	.1054	.27640	.07529	.45464	.06899	.05037	.01150

#1	22.11	.45316	.46198	23.395	.48646	.53533	.49601
#2	22.15	.45140	.46247	23.546	.48598	.53495	.49593

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	-10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46206	.51712	.48686
Stddev	.00225	.00186	.00020
%RSD	.48800	.35991	.04147

#1	.46047	.51843	.48700
#2	.46366	.51580	.48671

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2629.8	4267.5	125600.	7549.3
Stddev	.7	1.0	139.	9.4
%RSD	.02600	.02280	.11044	.12444

#1	2630.3	4266.8	125700.	7542.7
#2	2629.3	4268.2	125500.	7556.0

Sample Name: CCB-4957862 Acquired: 11/1/2018 2:56:24 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	-.02080	.00124	-.00002	-.00000	-.00015	.01270	.00004
Stddev	.00004	.00359	.00035	.00017	.00000	.00008	.00558	.00004
%RSD	11.573	17.245	28.426	998.12	4992.6	53.109	43.943	108.63

#1	-.00031	-.01826	.00099	.00011	.00000	-.00021	.00875	.00001
#2	-.00037	-.02333	.00149	-.00014	-.00000	-.00010	.01664	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0029	.00013	-.00014	-.00127	.00100	-.00194	.00064	-.00326
Stddev	.0099	.00012	.00028	.00012	.00498	.04351	.00033	.00261
%RSD	342.9	88.991	207.11	9.6748	498.52	2246.5	51.644	80.174

#1	.0041	.00021	.00006	-.00118	-.00252	.02883	.00041	-.00141
#2	-.0099	.00005	-.00033	-.00135	.00452	-.03270	.00087	-.00511

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00029	.19783	.00005	.00037	.0084	-.00184	-.00055
Stddev	.00004	.00009	.00867	.00004	.00124	.0017	.00058	.00055
%RSD	70.734	31.704	4.3842	79.727	339.17	20.87	31.340	99.657

#1	.00003	.00022	.20397	.00007	.00124	.0096	-.00225	-.00093
#2	.00009	.00035	.19170	.00002	-.00051	.0071	-.00143	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 2:56:24 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.05208	-.00055	-.00009	-.00028	.00017	-.00008	-.00016
Stddev	.02628	.00072	.00001	.00011	.00022	.00017	.00021
%RSD	50.466	131.44	5.5984	39.734	128.73	207.64	127.73

#1	-.03350	-.00106	-.00010	-.00036	.00002	-.00020	-.00031
#2	-.07067	-.00004	-.00009	-.00020	.00033	.00004	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2777.0	4374.6	128820.	7560.7
Stddev	1.3	4.3	289.	5.8
%RSD	.04828	.09888	.22429	.07668

#1	2777.9	4371.6	128620.	7564.8
#2	2776.0	4377.7	129030.	7556.6

Sample Name: CCVL-4970377 Acquired: 11/1/2018 3:00:17 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00593	.19752	.01335	.01785	.00204	.00198	.49760	.00195
Stddev	.00103	.00193	.00144	.00009	.00002	.00004	.00479	.00004
%RSD	17.314	.97662	10.784	.49278	1.0476	2.2621	.96297	2.0288

#1	.00666	.19616	.01436	.01779	.00206	.00195	.49421	.00198
#2	.00520	.19889	.01233	.01791	.00203	.00201	.50099	.00192

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0099	.00392	.00407	.00804	.04933	.48497	.02791	.19723
Stddev	.0083	.00014	.00008	.00019	.00018	.00503	.00028	.00327
%RSD	83.83	3.6401	1.8504	2.3407	.35968	1.0367	.98552	1.6565

#1	-.0158	.00382	.00412	.00818	.04920	.48141	.02810	.19492
#2	-.0040	.00402	.00401	.00791	.04945	.48852	.02771	.19954

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00313	.00854	1.1683	.01042	.01047	.1805	.01656	.02291
Stddev	.00005	.00007	.0040	.00033	.00061	.0062	.00051	.00255
%RSD	1.7351	.86932	.33830	3.1375	5.7944	3.431	3.0864	11.112

#1	.00316	.00859	1.1711	.01065	.01090	.1761	.01692	.02471
#2	.00309	.00849	1.1655	.01019	.01004	.1849	.01620	.02111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 11/1/2018 3:00:17 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40827	.00890	.00512	.00479	.01984	.00491	.00955
Stddev	.01025	.00029	.00001	.00020	.00063	.00011	.00059
%RSD	2.5109	3.2044	.20024	4.1074	3.1699	2.3348	6.1646
#1	.40102	.00910	.00511	.00493	.01940	.00499	.00913
#2	.41552	.00870	.00513	.00465	.02029	.00483	.00996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2776.4	4368.5	129310.	7689.2
Stddev	3.3	3.2	461.	23.3
%RSD	.11874	.07371	.35669	.30249
#1	2778.7	4370.8	128990.	7672.7
#2	2774.0	4366.2	129640.	7705.6

Sample Name: 480-144049-B-4-A Acquired: 11/1/2018 3:04:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	-.01138	.30028	7.4500	.26727
Stddev	.00025	.04287	.00338	.0064	.00023
%RSD	47.069	376.68	1.1260	.08597	.08527

#1	-.00035	-.04170	.30267	7.4545	.26743
#2	-.00070	.01893	.29789	7.4455	.26711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	85.784	.00053	-.0272	.00117
Stddev	.00003	.184	.00011	.0102	.00009
%RSD	40.867	.21431	20.280	37.49	7.2595

#1	-.00005	85.654	.00061	-.0200	.00111
#2	-.00009	85.914	.00046	-.0345	.00123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	-.00140	12.427	69.874	.00443
Stddev	.00000	.00035	.008	.184	.00035
%RSD	.29238	24.921	.06381	.26395	7.8792

#1	.00061	-.00164	12.433	70.005	.00419
#2	.00061	-.00115	12.422	69.744	.00468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-4-A Acquired: 11/1/2018 3:04:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.953	.72501	.00135	166.00	.02543
Stddev	.051	.00121	.00001	.09	.00013
%RSD	.17560	.16700	.64150	.05480	.51722

#1	28.989	.72587	.00135	165.94	.02552
#2	28.917	.72415	.00136	166.07	.02533

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	10.62	-.00020	-.00373	11.517
Stddev	.00028	.02	.00080	.00069	.052
%RSD	35.276	.2022	401.54	18.535	.44951

#1	.00060	10.64	.00037	-.00324	11.480
#2	.00101	10.61	-.00077	-.00422	11.553

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.43311	.00008	.00135	.00197
Stddev	.00065	.00075	.00009	.00028	.00017
%RSD	158.45	.17339	119.07	20.676	8.4660

#1	-.00005	.43364	.00014	.00116	.00185
#2	.00086	.43258	.00001	.00155	.00209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-4-A Acquired: 11/1/2018 3:04:08 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00157**
Stddev .00002
%RSD 1.4794

#1 **.00156**
#2 **.00159**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2442.7	4073.8	121420.	7582.6
Stddev	.1	4.1	280.	22.4
%RSD	.00216	.10079	.23098	.29548

#1	2442.6	4070.9	121230.	7566.7
#2	2442.7	4076.7	121620.	7598.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.179%	98.756%	92.944%	95.773%
Range				

Sample Name: 480-144049-B-5-A Acquired: 11/1/2018 3:07:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00988	.41266	.21348	.21186
Stddev	.00028	.02710	.00496	.00060	.00041
%RSD	296.15	274.29	1.2030	.28050	.19222

#1	.00010	.02904	.40915	.21306	.21215
#2	-.00029	-.00928	.41617	.21390	.21158

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	56.314	.00054	-.0091	.00081
Stddev	.00003	.145	.00002	.0130	.00005
%RSD	15.900	.25720	3.9374	142.7	6.2071

#1	-.00019	56.416	.00056	.0001	.00078
#2	-.00015	56.212	.00053	-.0182	.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	-.00128	20.095	28.434	.00211
Stddev	.00006	.00026	.078	.083	.00104
%RSD	13.028	20.716	.38646	.29145	49.348

#1	.00049	-.00147	20.150	28.492	.00137
#2	.00041	-.00109	20.040	28.375	.00284

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-5-A Acquired: 11/1/2018 3:07:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.777	.93528	.00100	99.894	.01039
Stddev	.009	.00122	.00005	.345	.00021
%RSD	.05499	.13060	5.3436	.34522	1.9785

#1	15.783	.93615	.00097	100.14	.01053
#2	15.771	.93442	.00104	99.650	.01024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00115	7.764	-.00229	-.00091	11.374
Stddev	.00036	.012	.00147	.00021	.056
%RSD	31.095	.1515	64.004	22.861	.49146

#1	.00090	7.756	-.00333	-.00076	11.413
#2	.00140	7.772	-.00125	-.00106	11.334

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.52742	-.00006	.00128	.00129
Stddev	.00030	.00186	.00008	.00005	.00026
%RSD	58.072	.35346	119.72	4.1809	20.058

#1	-.00073	.52874	-.00012	.00124	.00110
#2	-.00030	.52610	-.00001	.00132	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-5-A Acquired: 11/1/2018 3:07:57 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00167**
Stddev .00139
%RSD 83.102

#1 **.00069**
#2 **.00266**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2531.9	4149.0	123850.	7638.8
Stddev	1.9	9.1	199.	26.0
%RSD	.07332	.21881	.16091	.34067

#1	2533.2	4155.4	123710.	7620.4
#2	2530.6	4142.6	123990.	7657.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.363%	100.58%	94.798%	96.483%
Range				

Sample Name: 480-144049-B-6-A Acquired: 11/1/2018 3:11:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00060	-.01172	.00225	.11667	.05342
Stddev	.00002	.02079	.00520	.00005	.00012
%RSD	3.2918	177.45	231.18	.03867	.22281

#1	-.00059	.00298	.00592	.11664	.05350
#2	-.00062	-.02642	-.00143	.11670	.05333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	38.238	.00028	-.0464	.00341
Stddev	.00004	.030	.00002	.0046	.00006
%RSD	59.158	.07948	8.7798	10.03	1.8907

#1	-.00009	38.217	.00030	-.0431	.00337
#2	-.00004	38.260	.00027	-.0497	.00346

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00088	.21372	11.531	.00130
Stddev	.00046	.00010	.00167	.005	.00158
%RSD	213.77	11.262	.78306	.04128	121.33

#1	.00054	.00081	.21490	11.534	.00018
#2	-.00011	.00095	.21253	11.528	.00242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-6-A Acquired: 11/1/2018 3:11:43 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.4291	.57617	.00544	70.040	.00351
Stddev	.0085	.00071	.00015	.080	.00005
%RSD	.24697	.12259	2.6984	.11368	1.4609

#1	3.4351	.57667	.00533	70.097	.00355
#2	3.4231	.57568	.00554	69.984	.00347

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	6.878	-.00283	-.00081	3.1398
Stddev	.00080	.005	.00105	.00002	.0320
%RSD	457.24	.0800	37.061	2.4774	1.0180

#1	-.00075	6.882	-.00209	-.00083	3.1172
#2	.00039	6.875	-.00358	-.00080	3.1624

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00161	.14117	-.00003	.00168	.00026
Stddev	.00041	.00018	.00003	.00101	.00009
%RSD	25.594	.12701	132.07	60.040	33.542

#1	-.00132	.14130	-.00005	.00240	.00032
#2	-.00190	.14104	-.00000	.00097	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-6-A Acquired: 11/1/2018 3:11:43 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01590**
 Stddev .00118
 %RSD 7.3936

#1 **.01507**
 #2 **.01674**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2609.1	4211.6	124980.	7675.6
Stddev	3.2	5.9	140.	11.2
%RSD	.12135	.14112	.11198	.14621

#1	2611.3	4215.8	124880.	7683.5
#2	2606.8	4207.4	125080.	7667.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.117%	102.10%	95.664%	96.947%
Range				

Sample Name: 480-144049-B-7-A Acquired: 11/1/2018 3:15:31 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00632	.00441	.03374	.08625
Stddev	.00021	.01156	.00109	.00012	.00023
%RSD	470.84	182.94	24.821	.35861	.26114

#1	.00010	-.01449	.00363	.03383	.08610
#2	-.00019	.00185	.00518	.03365	.08641

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	82.556	.00013	-.0043	.00068
Stddev	.00001	.452	.00010	.0045	.00016
%RSD	12.368	.54736	77.384	107.0	23.351

#1	-.00009	82.237	.00006	-.0010	.00079
#2	-.00008	82.876	.00020	-.0075	.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-.00032	.03679	10.338	.00076
Stddev	.00042	.00045	.00186	.016	.00018
%RSD	409.19	143.25	5.0469	.15556	23.291

#1	.00040	.00000	.03548	10.327	.00064
#2	-.00019	-.00064	.03810	10.349	.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-7-A Acquired: 11/1/2018 3:15:31 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.6209	.21386	.00573	6.8891	.00141
Stddev	.0098	.00054	.00012	.0004	.00009
%RSD	.21225	.25361	2.1367	.00578	6.4114

#1	4.6140	.21424	.00565	6.8888	.00134
#2	4.6279	.21347	.00582	6.8893	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00064	11.34	-.00234	-.00185	3.5404
Stddev	.00013	.01	.00052	.00186	.0114
%RSD	19.750	.0687	22.446	100.67	.32208

#1	.00055	11.33	-.00197	-.00316	3.5324
#2	.00073	11.34	-.00271	-.00053	3.5485

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.24032	.00021	.00153	.00000
Stddev	.00013	.00034	.00004	.00011	.00008
%RSD	29.395	.13993	19.132	6.9740	2027.0

#1	-.00052	.24056	.00018	.00146	.00006
#2	-.00034	.24009	.00024	.00161	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144049-B-7-A Acquired: 11/1/2018 3:15:31 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00263**
 Stddev .00007
 %RSD 2.7561

#1 **.00258**
 #2 **.00268**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2646.2	4213.8	126330.	7702.8
Stddev	2.3	.0	52.	19.8
%RSD	.08713	.00079	.04152	.25688

#1	2647.8	4213.8	126360.	7716.8
#2	2644.6	4213.8	126290.	7688.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.442%	102.15%	96.697%	97.292%
Range				

Sample Name: MB 480-441992/1-A Acquired: 11/1/2018 3:19:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.01060	.00159	.00180	.00005
Stddev	.00011	.00836	.00461	.00042	.00000
%RSD	375.28	78.866	290.22	23.263	10.290

#1	.00011	-.01652	-.00167	.00209	.00004
#2	-.00005	-.00469	.00485	.00150	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.05664	-.00002	.0219	-.00001
Stddev	.00003	.00115	.00006	.0176	.00009
%RSD	14.242	2.0351	307.06	80.20	872.06

#1	-.00016	.05746	-.00006	.0095	-.00008
#2	-.00020	.05582	.00002	.0343	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	-.00176	.00889	.02249	-.00082
Stddev	.00025	.00035	.00044	.01327	.00002
%RSD	49.524	19.986	4.9559	59.023	1.8552

#1	.00067	-.00151	.00858	.01310	-.00081
#2	.00032	-.00201	.00920	.03188	-.00083

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441992/1-A Acquired: 11/1/2018 3:19:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00199	.00033	-.00025	.17761	.00018
Stddev	.00139	.00000	.00021	.00528	.00016
%RSD	69.852	.83593	82.379	2.9742	89.901

#1	-.00298	.00033	-.00040	.17388	.00007
#2	-.00101	.00033	-.00010	.18135	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.0104	-.00269	-.00045	-.05424
Stddev	.00151	.0030	.00051	.00054	.01330
%RSD	262.81	28.56	18.882	118.99	24.514

#1	.00164	.0083	-.00233	-.00084	-.04484
#2	-.00049	.0125	-.00305	-.00007	-.06364

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00002	-.00039	.00106	-.00030
Stddev	.00047	.00003	.00026	.00080	.00004
%RSD	1563.1	181.54	68.386	74.977	12.458

#1	.00036	.00004	-.00020	.00050	-.00027
#2	-.00030	-.00000	-.00057	.00163	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-441992/1-A Acquired: 11/1/2018 3:19:19 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00158**
 Stddev .00065
 %RSD 41.167

#1 **.00112**
 #2 **.00204**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2776.1	4391.5	130320.	7760.3
Stddev	3.1	5.1	229.	31.9
%RSD	.11033	.11647	.17576	.41052

#1	2778.3	4395.1	130480.	7782.8
#2	2773.9	4387.9	130160.	7737.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.078%	106.46%	99.754%	98.017%
Range				

Sample Name: LCS 480-441992/2-A Acquired: 11/1/2018 3:23:10 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04937	9.8664	.18260	.18522	.20317
Stddev	.00057	.0135	.00083	.00045	.00003
%RSD	1.1503	.13680	.45524	.24089	.01467

#1	.04896	9.8759	.18201	.18553	.20319
#2	.04977	9.8568	.18318	.18490	.20315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20596	9.6977	.18708	-.0058	.18993
Stddev	.00036	.0171	.00013	.0258	.00012
%RSD	.17660	.17622	.07181	443.4	.06309

#1	.20570	9.6857	.18717	-.0241	.18985
#2	.20622	9.7098	.18698	.0124	.19002

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20677	.19434	9.9967	9.8261	.19253
Stddev	.00000	.00032	.0265	.0150	.00062
%RSD	.00138	.16490	.26508	.15298	.32211

#1	.20677	.19457	9.9779	9.8367	.19297
#2	.20677	.19411	10.015	9.8155	.19209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441992/2-A Acquired: 11/1/2018 3:23:10 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9102	.20585	.17622	10.271	.20964
Stddev	.0043	.00013	.00060	.004	.00033
%RSD	.04310	.06352	.34016	.03822	.15744

#1	9.9132	.20595	.17665	10.269	.20941
#2	9.9072	.20576	.17580	10.274	.20987

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.18964	8.838	.18251	.18790	9.3284
Stddev	.00023	.022	.00047	.00565	.0210
%RSD	.12269	.2472	.25968	3.0075	.22517

#1	.18981	8.853	.18285	.18390	9.3135
#2	.18948	8.822	.18218	.19190	9.3432

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19264	.21482	.19774	.18854	.20815
Stddev	.00011	.00058	.00052	.00134	.00029
%RSD	.05575	.26939	.26187	.71076	.13757

#1	.19271	.21441	.19810	.18949	.20835
#2	.19256	.21522	.19737	.18760	.20794

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-441992/2-A Acquired: 11/1/2018 3:23:10 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20501**
 Stddev .00167
 %RSD .81294

#1 **.20384**
 #2 **.20619**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.5	4318.4	127200.	7684.0
Stddev	2.9	2.1	107.	1.8
%RSD	.10759	.04955	.08434	.02376

#1	2702.5	4316.9	127130.	7682.7
#2	2698.4	4320.0	127280.	7685.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.379%	104.69%	97.369%	97.053%
Range				

Sample Name: 480-144121-C-8-A Acquired: 11/1/2018 3:26:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.01764	.00162	.00911	.00162
Stddev	.00020	.02017	.00096	.00040	.00000
%RSD	53.795	114.33	59.514	4.4355	.17366

#1	-.00051	.03190	.00094	.00940	.00162
#2	-.00023	.00338	.00230	.00883	.00162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	122.51	.00022	-.0200	-.00009
Stddev	.00000	.06	.00004	.0213	.00015
%RSD	1.2755	.04569	18.290	106.5	165.86

#1	.00014	122.47	.00025	-.0351	.00002
#2	.00014	122.55	.00019	-.0049	-.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.46150	.01730	2.3390	.04285
Stddev	.00018	.00070	.00082	.0415	.00032
%RSD	30.794	.15159	4.7569	1.7722	.75841

#1	.00071	.46100	.01672	2.3683	.04262
#2	.00045	.46199	.01788	2.3097	.04308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-A Acquired: 11/1/2018 3:26:50 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.1468	.00110	.00027	74.214	.00464
Stddev	.0190	.00002	.00002	.130	.00041
%RSD	.20793	1.8837	8.7322	.17545	8.8836

#1	9.1602	.00112	.00028	74.306	.00493
#2	9.1333	.00109	.00025	74.122	.00435

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03427	3.893	-.00275	-.00482	8.0122
Stddev	.00120	.010	.00036	.00206	.0314
%RSD	3.4898	.2573	13.166	42.723	.39127

#1	.03512	3.886	-.00301	-.00336	8.0344
#2	.03342	3.900	-.00249	-.00627	7.9900

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00269	.36367	-.00029	.00258	-.00013
Stddev	.00054	.00021	.00005	.00114	.00009
%RSD	20.131	.05733	16.331	44.221	70.499

#1	.00307	.36382	-.00026	.00177	-.00006
#2	.00231	.36352	-.00032	.00338	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-A Acquired: 11/1/2018 3:26:50 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.27482**
 Stddev .00026
 %RSD .09434

#1 **.27500**
 #2 **.27463**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2536.5	4147.4	123180.	7550.9
Stddev	1.9	5.1	310.	10.0
%RSD	.07498	.12229	.25177	.13219

#1	2535.1	4151.0	123400.	7558.0
#2	2537.8	4143.8	122960.	7543.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	90.526%	100.54%	94.288%	95.373%
Range				

Sample Name: 480-144121-C-8-Asd@5 Acquired: 11/1/2018 3:30:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	-.00397	-.00109	.00202	.00033
Stddev	.00043	.02086	.00051	.00009	.00002
%RSD	147.85	525.02	46.384	4.5660	6.2801

#1	.00001	-.01872	-.00145	.00209	.00034
#2	-.00060	.01078	-.00074	.00196	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	24.566	.00015	-.0036	-.00006
Stddev	.00001	.053	.00019	.0028	.00005
%RSD	91.935	.21659	126.93	75.52	84.960

#1	.00001	24.529	.00028	-.0056	-.00002
#2	.00000	24.604	.00001	-.0017	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.08972	.00465	.41495	.00808
Stddev	.00013	.00008	.00223	.02413	.00065
%RSD	42.653	.08895	48.005	5.8142	8.0861

#1	.00041	.08966	.00623	.39789	.00762
#2	.00022	.08977	.00307	.43201	.00854

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-Asd@5 Acquired: 11/1/2018 3:30:38 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.8542	.00022	-.00015	14.705	.00046
Stddev	.0009	.00003	.00004	.025	.00006
%RSD	.04629	11.759	23.290	.16920	12.431

#1	1.8548	.00020	-.00013	14.688	.00042
#2	1.8536	.00024	-.00018	14.723	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00782	.7453	-.00175	.00205	1.5673
Stddev	.00003	.0041	.00014	.00019	.0040
%RSD	.38831	.5540	7.7710	9.4565	.25619

#1	.00784	.7424	-.00184	.00191	1.5644
#2	.00780	.7483	-.00165	.00218	1.5701

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	.07282	-.00044	.00179	-.00016
Stddev	.00039	.00018	.00003	.00090	.00035
%RSD	1650.1	.24263	7.1819	50.183	215.69

#1	-.00025	.07270	-.00041	.00243	.00008
#2	.00030	.07295	-.00046	.00116	-.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-Asd@5 Acquired: 11/1/2018 3:30:38 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.05588**
 Stddev .00075
 %RSD 1.3346

#1 **.05536**
 #2 **.05641**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2714.3	4307.1	127610.	7596.7
Stddev	.9	2.1	242.	5.1
%RSD	.03199	.04785	.18941	.06712

#1	2713.6	4305.6	127780.	7600.3
#2	2714.9	4308.5	127440.	7593.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.871%	104.41%	97.677%	95.951%
Range				

Sample Name: 480-144121-C-8-Apds Acquired: 11/1/2018 3:34:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05086	9.9984	.18909	.19954	.20384
Stddev	.00034	.0175	.00067	.00079	.00040
%RSD	.65976	.17477	.35240	.39355	.19748

#1	.05110	10.011	.18861	.19898	.20413
#2	.05063	9.9860	.18956	.20009	.20356

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21043	127.35	.19361	-.0209	.19532
Stddev	.00012	.01	.00019	.0166	.00039
%RSD	.05749	.00719	.09930	79.15	.20158

#1	.21035	127.35	.19348	-.0092	.19559
#2	.21052	127.36	.19375	-.0326	.19504

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20625	.64274	9.9366	13.002	.24959
Stddev	.00023	.00249	.0388	.017	.00032
%RSD	.10912	.38728	.39061	.12804	.12782

#1	.20640	.64450	9.9641	13.014	.24937
#2	.20609	.64098	9.9092	12.990	.24982

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-Apds Acquired: 11/1/2018 3:34:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.745	.20419	.18061	81.739	.21763
Stddev	.036	.00011	.00057	.350	.00021
%RSD	.19422	.05251	.31686	.42843	.09849

#1	18.770	.20426	.18020	81.986	.21748
#2	18.719	.20411	.18101	81.491	.21778

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22894	13.28	.18716	.19237	17.334
Stddev	.00122	.03	.00017	.00128	.024
%RSD	.53304	.1884	.09265	.66699	.13915

#1	.22980	13.26	.18703	.19327	17.351
#2	.22807	13.30	.18728	.19146	17.317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20394	.56540	.20075	.19338	.21211
Stddev	.00076	.00161	.00060	.00110	.00007
%RSD	.37151	.28457	.30048	.56699	.03334

#1	.20448	.56654	.20118	.19260	.21216
#2	.20341	.56427	.20032	.19415	.21206

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-Apds Acquired: 11/1/2018 3:34:27 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.46913**
 Stddev .00387
 %RSD .82465

#1 .46639
 #2 .47186

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2496.9	4126.6	122280.	7575.3
Stddev	.8	3.1	143.	.1
%RSD	.03235	.07420	.11658	.00197

#1	2496.3	4128.7	122380.	7575.2
#2	2497.5	4124.4	122180.	7575.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.114%	100.03%	93.596%	95.681%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 3:38:07 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49722	24.084	F .44261	F .43442	.49517	.48885	24.031
Stddev	.00031	.074	.00610	.00031	.00340	.00028	.025
%RSD	.06272	.30875	1.3771	.07023	.68569	.05807	.10528

#1	.49744	24.137	.43830	.43420	.49757	.48905	24.013
#2	.49700	24.032	.44692	.43463	.49277	.48865	24.048

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45587	-.0138	.47963	.50872	.49365	24.429	25.036
Stddev	.00011	.0181	.00107	.00170	.00016	.036	.042
%RSD	.02423	131.2	.22316	.33374	.03186	.14726	.16808

#1	.45579	-.0010	.47887	.50992	.49376	24.404	25.006
#2	.45595	-.0266	.48039	.50752	.49354	24.455	25.065

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48420	24.046	.51869	F .44941	25.882	.50302	.47092
Stddev	.00105	.006	.00051	.00101	.014	.00047	.00148
%RSD	.21738	.02651	.09848	.22501	.05417	.09414	.31509

#1	.48494	24.051	.51905	.45013	25.872	.50268	.46987
#2	.48345	24.042	.51833	.44870	25.892	.50335	.47196

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Sample Name: CCV-4954075 Acquired: 11/1/2018 3:38:07 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.39	.45575	.46605	23.441	.48705	.53549	.49283
Stddev	.01	.00216	.00227	.078	.00006	.00059	.00070
%RSD	.0285	.47466	.48716	.33316	.01164	.11069	.14233

#1	22.39	.45728	.46765	23.386	.48709	.53507	.49233
#2	22.38	.45422	.46444	23.496	.48701	.53591	.49332

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	-10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46423	.51464	.48154
Stddev	.00250	.00042	.00023
%RSD	.53859	.08116	.04796

#1	.46246	.51494	.48138
#2	.46599	.51435	.48170

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2637.2	4249.5	126190.	7588.6
Stddev	3.7	4.5	269.	9.2
%RSD	.14020	.10675	.21299	.12166

#1	2639.8	4252.7	126000.	7595.2
#2	2634.6	4246.3	126380.	7582.1

Sample Name: CCB-4957862 Acquired: 11/1/2018 3:41:50 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00716	-.00141	.00050	-.00001	-.00015	.00873	.00013
Stddev	.00013	.00304	.00289	.00033	.00001	.00005	.00067	.00001
%RSD	165.27	42.453	204.42	65.833	194.57	31.836	7.6713	11.274

#1	-.00017	-.00931	.00063	.00074	-.00001	-.00019	.00826	.00014
#2	.00001	-.00501	-.00346	.00027	.00000	-.00012	.00921	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0077	.00004	.00016	-.00101	.00060	-.01993	.00043	-.00123
Stddev	.0252	.00002	.00023	.00015	.00039	.02371	.00066	.00286
%RSD	329.5	53.485	144.14	15.084	65.338	118.97	154.26	232.44

#1	.0102	.00005	-.00000	-.00090	.00032	-.03670	.00089	-.00325
#2	-.0255	.00002	.00032	-.00111	.00088	-.00316	-.00004	.00079

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00037	.11665	.00007	.00118	.0084	-.00081	-.00001
Stddev	.00004	.00002	.00120	.00001	.00029	.0024	.00171	.00037
%RSD	69.722	6.6446	1.0245	8.4814	24.937	28.78	211.19	3203.9

#1	.00009	.00039	.11750	.00007	.00139	.0067	.00040	-.00027
#2	.00003	.00036	.11581	.00006	.00097	.0101	-.00202	.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 3:41:50 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04769	-.00046	-.00008	-.00046	-.00024	-.00015	.00025
Stddev	.00364	.00074	.00003	.00019	.00032	.00006	.00027
%RSD	7.6298	159.93	43.369	42.486	134.12	42.241	109.26

#1	-.05026	-.00098	-.00005	-.00032	-.00046	-.00020	.00006
#2	-.04511	.00006	-.00010	-.00060	-.00001	-.00011	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2771.2	4359.3	129250.	7593.9
Stddev	2.4	4.5	169.	24.1
%RSD	.08838	.10397	.13102	.31769

#1	2769.5	4356.1	129130.	7576.8
#2	2772.9	4362.5	129370.	7611.0

Sample Name: CCVL-4970377 Acquired: 11/1/2018 3:45:42 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00581	.19889	.01485	.01807	.00203	.00198	.49562
Stddev	.00029	.00088	.00002	.00020	.00001	.00005	.00253
%RSD	4.9070	.44318	.15199	1.1261	.34771	2.5171	.51127
#1	.00561	.19826	.01487	.01793	.00204	.00202	.49741
#2	.00601	.19951	.01483	.01822	.00203	.00195	.49382

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00198	.0069	.00391	.00420	.00798	.04983	.45995
Stddev	.00012	.0125	.00011	.00021	.00004	.00067	.00709
%RSD	6.2872	180.8	2.7980	5.1027	.53631	1.3378	1.5408
#1	.00190	-.0019	.00399	.00436	.00795	.04936	.45494
#2	.00207	.0157	.00384	.00405	.00801	.05030	.46496

Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02802	.20269	.00316	.00856	1.0777	.01039	.01035
Stddev	.00086	.00257	.00003	.00007	.0041	.00031	.00066
%RSD	3.0629	1.2692	1.0582	.83605	.37714	3.0253	6.3782
#1	.02742	.20087	.00319	.00861	1.0805	.01016	.01082
#2	.02863	.20451	.00314	.00851	1.0748	.01061	.00989

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 11/1/2018 3:45:42 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1808	.01632	.02369	.40773	.00933	.00509	.00490
Stddev	.0003	.00029	.00207	.01069	.00037	.00005	.00034
%RSD	.1744	1.7702	8.7445	2.6220	3.9617	.97880	7.0133

#1	.1806	.01652	.02516	.40017	.00907	.00512	.00465
#2	.1810	.01611	.02223	.41529	.00959	.00505	.00514

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.01825	.00491	W .01476
Stddev	.00058	.00010	.00017
%RSD	3.1845	2.0500	1.1402

#1	.01783	.00484	.01464
#2	.01866	.00498	.01488

Check ?	Chk Pass	Chk Pass	Chk Warn
Value			.01000
Range			30.000%

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2777.2	4363.9	129500.	7651.5
Stddev	.2	7.4	159.	5.5
%RSD	.00857	.16974	.12305	.07192

#1	2777.1	4358.6	129610.	7655.4
#2	2777.4	4369.1	129390.	7647.6

Sample Name: 480-144121-C-8-B MS Acquired: 11/1/2018 3:49:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05025	10.042	.18946	.20013	.20325
Stddev	.00012	.018	.00053	.00098	.00011
%RSD	.24205	.17564	.28100	.48741	.05307

#1	.05017	10.055	.18908	.20082	.20318
#2	.05034	10.030	.18983	.19944	.20333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21077	134.03	.19443	.0014	.19589
Stddev	.00058	.04	.00020	.0117	.00033
%RSD	.27644	.03122	.10225	845.6	.16595

#1	.21118	134.06	.19429	.0097	.19612
#2	.21035	134.00	.19457	-.0069	.19566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20552	.66476	9.9355	13.152	.25376
Stddev	.00035	.00006	.0124	.015	.00106
%RSD	.17089	.00899	.12490	.11683	.41835

#1	.20527	.66481	9.9443	13.141	.25451
#2	.20577	.66472	9.9267	13.163	.25300

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-B MS Acquired: 11/1/2018 3:49:33 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.192	.20328	.18189	85.864	.21724
Stddev	.007	.00024	.00063	.412	.00021
%RSD	.03532	.12040	.34707	.48008	.09453

#1	19.197	.20311	.18234	86.156	.21739
#2	19.188	.20345	.18144	85.573	.21709

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22996	13.41	.18889	.19296	17.747
Stddev	.00103	.03	.00061	.00434	.012
%RSD	.44742	.2337	.32274	2.2475	.06937

#1	.22923	13.44	.18932	.18990	17.756
#2	.23069	13.39	.18846	.19603	17.738

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20337	.58145	.20048	.19277	.21062
Stddev	.00032	.00195	.00078	.00157	.00013
%RSD	.15967	.33610	.39129	.81431	.06046

#1	.20360	.58283	.20103	.19166	.21053
#2	.20314	.58007	.19992	.19388	.21071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-B MS Acquired: 11/1/2018 3:49:33 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.48358**
 Stddev .00048
 %RSD .09857

#1 **.48324**
 #2 **.48392**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2489.2	4101.6	122470.	7523.9
Stddev	1.9	.1	95.	17.2
%RSD	.07735	.00254	.07771	.22822

#1	2487.9	4101.5	122540.	7511.8
#2	2490.6	4101.7	122410.	7536.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.840%	99.430%	93.747%	95.031%
Range				

Sample Name: 480-144121-C-8-C MSD Acquired: 11/1/2018 3:53:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04980	9.7169	.18689	.19650	.19901
Stddev	.00027	.0242	.00069	.00032	.00011
%RSD	.54744	.24901	.36956	.16191	.05699

#1	.04999	9.7340	.18738	.19627	.19893
#2	.04961	9.6998	.18641	.19672	.19909

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20704	132.40	.19180	.0194	.19278
Stddev	.00048	.32	.00009	.0123	.00009
%RSD	.23237	.24278	.04921	63.51	.04789

#1	.20670	132.17	.19173	.0107	.19272
#2	.20738	132.63	.19186	.0282	.19285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20251	.65843	9.7164	12.901	.24717
Stddev	.00059	.00085	.0205	.023	.00121
%RSD	.28934	.12842	.21129	.17488	.48950

#1	.20292	.65783	9.7018	12.917	.24631
#2	.20209	.65903	9.7309	12.885	.24802

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-C MSD Acquired: 11/1/2018 3:53:12 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.037	.20059	.17973	84.289	.21421
Stddev	.039	.00028	.00010	.542	.00067
%RSD	.20378	.13729	.05695	.64264	.31354

#1	19.065	.20078	.17981	83.906	.21374
#2	19.010	.20039	.17966	84.672	.21469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22931	13.24	.18602	.19271	17.437
Stddev	.00097	.02	.00049	.00380	.042
%RSD	.42334	.1192	.26112	1.9733	.24318

#1	.22999	13.22	.18637	.19540	17.407
#2	.22862	13.25	.18568	.19002	17.467

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20057	.57057	.19805	.19050	.20616
Stddev	.00001	.00135	.00015	.00016	.00028
%RSD	.00612	.23724	.07619	.08340	.13813

#1	.20056	.56961	.19816	.19039	.20636
#2	.20058	.57153	.19795	.19061	.20596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-C-8-C MSD Acquired: 11/1/2018 3:53:12 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.47766**
 Stddev .00007
 %RSD .01524

#1 **.47771**
 #2 **.47760**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2485.0	4091.8	122280.	7566.2
Stddev	5.4	4.1	64.	14.6
%RSD	.21699	.10119	.05239	.19245

#1	2488.9	4094.7	122230.	7576.5
#2	2481.2	4088.8	122320.	7555.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	88.690%	99.191%	93.596%	95.565%
Range				

Sample Name: 480-144146-B-1-A Acquired: 11/1/2018 3:56:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.03380	.00232	.02336	.00065
Stddev	.00033	.00637	.00131	.00006	.00000
%RSD	126.41	18.832	56.555	.26566	.56474

#1	-.00050	.03830	.00324	.02340	.00066
#2	-.00003	.02930	.00139	.02331	.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.09006	.00004	.0071	.00003
Stddev	.00003	.00219	.00001	.0287	.00009
%RSD	26.395	2.4265	22.314	402.0	266.20

#1	-.00013	.08852	.00004	.0274	.00010
#2	-.00009	.09161	.00005	-.0131	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.22366	.00668	.48589	.00591
Stddev	.00043	.00008	.00059	.01255	.00033
%RSD	104.03	.03355	8.8539	2.5837	5.6272

#1	.00011	.22371	.00626	.49477	.00614
#2	.00071	.22360	.00710	.47702	.00567

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144146-B-1-A Acquired: 11/1/2018 3:56:52 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03048	.00211	.00026	106.90	.00124
Stddev	.00052	.00003	.00025	.51	.00003
%RSD	1.7058	1.5530	95.976	.47306	2.0766

#1	.03011	.00208	.00008	107.26	.00125
#2	.03085	.00213	.00044	106.54	.00122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00549	5.381	-.00113	-.00057	4.6992
Stddev	.00105	.004	.00133	.00069	.0304
%RSD	19.088	.0723	117.47	120.36	.64603

#1	.00623	5.383	-.00207	-.00106	4.7207
#2	.00475	5.378	-.00019	-.00009	4.6777

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	.00015	-.00049	.00074	-.00043
Stddev	.00010	.00005	.00015	.00018	.00026
%RSD	47.155	37.065	31.002	23.821	59.305

#1	-.00028	.00011	-.00039	.00086	-.00025
#2	-.00014	.00019	-.00060	.00061	-.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144146-B-1-A Acquired: 11/1/2018 3:56:52 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.06827**
 Stddev .00002
 %RSD .03333

#1 **.06829**
 #2 **.06826**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2621.5	4228.5	125610.	7643.3
Stddev	4.6	2.9	556.	40.7
%RSD	.17572	.06924	.44288	.53215

#1	2624.7	4226.4	126010.	7614.6
#2	2618.2	4230.5	125220.	7672.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	93.559%	102.50%	96.152%	96.540%
Range				

Sample Name: 480-144146-B-2-A Acquired: 11/1/2018 4:00:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00891	.00246	.02306	.06103
Stddev	.00026	.00086	.00244	.00009	.00011
%RSD	585.42	9.6121	99.038	.37926	.18455

#1	-.00014	.00831	.00074	.02312	.06095
#2	.00023	.00952	.00419	.02299	.06111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	51.516	.00014	.0093	-.00017
Stddev	.00008	.007	.00011	.0162	.00003
%RSD	52.051	.01302	83.491	173.9	14.648

#1	-.00009	51.511	.00022	.0208	-.00015
#2	-.00020	51.520	.00006	-.0021	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.08202	.00854	1.5607	.01173
Stddev	.00028	.00008	.00358	.0198	.00032
%RSD	123.54	.09171	41.957	1.2652	2.7066

#1	.00043	.08196	.00601	1.5746	.01151
#2	.00003	.08207	.01108	1.5467	.01196

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144146-B-2-A Acquired: 11/1/2018 4:00:42 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.245	.00037	-.00000	5.1791	.00050
Stddev	.020	.00001	.00004	.0029	.00028
%RSD	.13044	2.0277	1433.8	.05527	55.483

#1	15.231	.00036	.00003	5.1812	.00070
#2	15.259	.00037	-.00003	5.1771	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00194	5.035	-.00169	-.00379	4.1048
Stddev	.00120	.009	.00012	.00209	.0039
%RSD	61.649	.1868	7.3195	55.233	.09487

#1	.00279	5.042	-.00160	-.00527	4.1021
#2	.00110	5.029	-.00178	-.00231	4.1076

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	.11097	-.00020	.00142	-.00029
Stddev	.00018	.00020	.00002	.00062	.00023
%RSD	51.903	.18108	10.811	43.370	78.038

#1	-.00047	.11083	-.00019	.00185	-.00013
#2	-.00022	.11111	-.00022	.00098	-.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144146-B-2-A Acquired: 11/1/2018 4:00:42 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.25575**
 Stddev .00110
 %RSD .42976

#1 **.25497**
 #2 **.25653**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2664.4	4222.2	126580.	7619.3
Stddev	4.4	6.2	8.	5.4
%RSD	.16657	.14568	.00600	.07063

#1	2667.5	4217.8	126590.	7623.1
#2	2661.3	4226.5	126580.	7615.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.092%	102.35%	96.892%	96.237%
Range				

Sample Name: 480-144147-B-1-A Acquired: 11/1/2018 4:04:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.02124	.00041	.04105	.11476
Stddev	.00010	.00496	.00036	.00002	.00009
%RSD	32.152	23.336	87.835	.05243	.07931

#1	-.00025	.02475	.00016	.04103	.11483
#2	-.00039	.01774	.00067	.04106	.11470

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	60.481	.00016	-.0102	.00005
Stddev	.00005	.140	.00008	.0049	.00006
%RSD	48.507	.23150	50.162	48.46	126.04

#1	-.00013	60.580	.00010	-.0067	.00009
#2	-.00006	60.382	.00022	-.0136	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00092	.03035	.06990	1.3097	.00488
Stddev	.00011	.00026	.00020	.0142	.00069
%RSD	12.080	.86670	.28404	1.0846	14.044

#1	.00084	.03054	.06976	1.2997	.00440
#2	.00099	.03016	.07004	1.3198	.00537

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144147-B-1-A Acquired: 11/1/2018 4:04:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.467	.00116	-.00030	49.025	.00143
Stddev	.033	.00002	.00016	.101	.00001
%RSD	.26689	1.3432	51.971	.20514	.97852

#1	12.490	.00115	-.00041	49.096	.00144
#2	12.443	.00117	-.00019	48.954	.00142

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00153	5.201	-.00194	-.00282	3.4853
Stddev	.00122	.005	.00029	.00234	.0162
%RSD	79.672	.0884	14.707	82.936	.46490

#1	.00240	5.204	-.00214	-.00117	3.4738
#2	.00067	5.198	-.00174	-.00448	3.4967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.08771	.00107	.00147	-.00003
Stddev	.00010	.00018	.00019	.00042	.00011
%RSD	18.992	.20118	18.165	28.551	403.75

#1	-.00059	.08758	.00121	.00176	.00005
#2	-.00045	.08783	.00093	.00117	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144147-B-1-A Acquired: 11/1/2018 4:04:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01889**
 Stddev .00014
 %RSD .75541

#1 **.01899**
 #2 **.01878**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2603.0	4195.7	124900.	7601.4
Stddev	3.5	5.2	110.	17.8
%RSD	.13491	.12403	.08826	.23452

#1	2605.5	4199.3	124830.	7614.0
#2	2600.5	4192.0	124980.	7588.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.901%	101.71%	95.608%	96.010%
Range				

Sample Name: 480-143819-G-4-B Acquired: 11/1/2018 4:08:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	.02177	.00629	9.5525	.64958
Stddev	.00037	.00664	.00051	.0196	.00500
%RSD	73.166	30.507	8.0301	.20471	.76944

#1	-.00024	.01707	.00665	9.5387	.65312
#2	-.00076	.02647	.00594	9.5663	.64605

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	243.32	.00028	-.0325	.00164
Stddev	.00003	.15	.00002	.0078	.00014
%RSD	8487.5	.06121	8.6610	24.05	8.6677

#1	.00002	243.43	.00030	-.0380	.00174
#2	-.00002	243.22	.00027	-.0269	.00154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00391	.01041	2.7829	91.655	.05016
Stddev	.00024	.00038	.0061	.268	.00032
%RSD	6.1683	3.6444	.22060	.29225	.64284

#1	.00408	.01068	2.7786	91.465	.04993
#2	.00374	.01014	2.7873	91.844	.05039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143819-G-4-B Acquired: 11/1/2018 4:08:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	297.23	7.1589	.00106	479.48	.01167
Stddev	2.39	.0494	.00006	2.45	.00015
%RSD	.80308	.68987	5.4166	.51183	1.3018

#1	298.91	7.1938	.00110	477.75	.01178
#2	295.54	7.1240	.00102	481.22	.01156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00315	63.10	-.00210	-.00811	18.877
Stddev	.00099	.07	.00122	.00136	.051
%RSD	31.465	.1175	58.267	16.740	.26915

#1	.00245	63.05	-.00297	-.00715	18.841
#2	.00385	63.16	-.00124	-.00907	18.913

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	2.0876	.01267	-.00104	.00952
Stddev	.00081	.0104	.00027	.00263	.00001
%RSD	1146.2	.49781	2.1301	252.65	.09294

#1	-.00064	2.0803	.01248	.00082	.00953
#2	.00050	2.0950	.01286	-.00290	.00952

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143819-G-4-B Acquired: 11/1/2018 4:08:18 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00668**
 Stddev .00006
 %RSD .95843

#1 **.00672**
 #2 **.00663**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2185.6	3777.2	113200.	7310.6
Stddev	2.2	1.5	500.	3.0
%RSD	.09847	.03951	.44168	.04074

#1	2184.1	3778.3	112850.	7308.5
#2	2187.1	3776.2	113560.	7312.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.004%	91.566%	86.653%	92.337%
Range				

Sample Name: 480-144191-F-1-A@5 Acquired: 11/1/2018 4:12:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	7.6381	.05506	1.3214	.05640
Stddev	.00030	.0170	.00132	.0002	.00005
%RSD	166.63	.22204	2.3930	.01358	.08004

#1	.00003	7.6261	.05413	1.3216	.05636
#2	-.00039	7.6501	.05599	1.3213	.05643

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	45.377	.00023	.0001	.00330
Stddev	.00004	.028	.00005	.0007	.00004
%RSD	174.70	.06128	23.832	605.4	1.0647

#1	-.00001	45.397	.00027	-.0004	.00332
#2	.00005	45.357	.00019	.0006	.00327

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05374	.00243	.40099	130.80	.02925
Stddev	.00003	.00002	.00380	.03	.00056
%RSD	.05235	.77698	.94763	.02207	1.9136

#1	.05372	.00242	.39831	130.82	.02885
#2	.05376	.00244	.40368	130.78	.02965

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144191-F-1-A@5 Acquired: 11/1/2018 4:12:27 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.545	.08511	.00774	529.18	.03262
Stddev	.038	.00012	.00021	.66	.00014
%RSD	.19540	.14076	2.7385	.12386	.41720

#1	19.572	.08520	.00789	529.64	.03252
#2	19.518	.08503	.00759	528.71	.03271

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00269	53.45	.00767	.01110	2.5275
Stddev	.00073	.07	.00198	.00045	.0008
%RSD	27.129	.1316	25.775	4.0904	.03015

#1	.00217	53.50	.00907	.01142	2.5281
#2	.00321	53.40	.00627	.01077	2.5270

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00458	.21713	.11755	.00169	.11575
Stddev	.00079	.00004	.00063	.00058	.00006
%RSD	17.142	.02013	.53559	34.153	.04876

#1	.00514	.21710	.11800	.00128	.11579
#2	.00403	.21717	.11711	.00210	.11571

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144191-F-1-A@5 Acquired: 11/1/2018 4:12:27 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00696**
 Stddev .00038
 %RSD 5.4305

#1 **.00670**
 #2 **.00723**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2310.7	4005.4	117460.	7499.1
Stddev	2.0	6.5	94.	11.8
%RSD	.08714	.16334	.07991	.15730

#1	2309.3	4000.8	117520.	7507.5
#2	2312.2	4010.0	117390.	7490.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.469%	97.098%	89.906%	94.718%
Range				

Sample Name: blank Acquired: 11/1/2018 4:16:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.01553	.00130	.00587	.00000
Stddev	.00019	.01311	.00002	.00028	.00002
%RSD	44.806	84.445	1.7568	4.7133	651.43

#1	-.00029	.00626	.00128	.00607	-.00001
#2	-.00056	.02480	.00132	.00568	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.00847	-.00002	.0082	.00012
Stddev	.00003	.00056	.00007	.0039	.00008
%RSD	82.163	6.6092	375.39	47.67	66.576

#1	-.00007	.00887	.00003	.0054	.00007
#2	-.00002	.00808	-.00007	.0110	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00112	.00244	.11709	.00078
Stddev	.00007	.00064	.00176	.01048	.00078
%RSD	155.07	56.906	72.125	8.9487	100.67

#1	-.00000	-.00157	.00119	.12450	.00133
#2	.00009	-.00067	.00368	.10968	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 11/1/2018 4:16:20 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.00011	-.00021	.31540	.00002
Stddev	.00058	.00003	.00004	.01163	.00010
%RSD	60307.	28.744	18.195	3.6876	443.41

#1	-.00041	.00013	-.00024	.32363	-.00005
#2	.00041	.00008	-.00019	.30718	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.0149	-.00184	-.00048	-.04060
Stddev	.00037	.0011	.00047	.00142	.00458
%RSD	110.49	7.311	25.674	299.18	11.273

#1	.00060	.0157	-.00151	-.00148	-.04384
#2	.00007	.0142	-.00218	.00053	-.03736

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00009	-.00000	.00025	-.00004
Stddev	.00048	.00015	.00010	.00033	.00002
%RSD	828.90	172.21	3780.4	130.77	37.269

#1	.00028	-.00020	.00007	.00048	-.00003
#2	-.00040	.00002	-.00007	.00002	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: blank Acquired: 11/1/2018 4:16:20 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00060**
 Stddev .00054
 %RSD 89.944

#1 **.00022**
 #2 **.00099**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2764.4	4340.9	129150.	7533.7
Stddev	4.1	.3	207.	38.9
%RSD	.14771	.00589	.16055	.51659

#1	2767.2	4340.8	129290.	7506.2
#2	2761.5	4341.1	129000.	7561.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.659%	105.23%	98.856%	95.156%
Range				

Sample Name: MB 480-440852/1-A Acquired: 11/1/2018 4:20:11 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.01565	.00071	.00387	.00006
Stddev	.00014	.00889	.00041	.00023	.00000
%RSD	106.08	56.826	57.447	5.9061	6.9121

#1	-.00003	.02193	.00042	.00404	.00006
#2	-.00024	.00936	.00100	.00371	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.01569	.00013	-.0154	.00006
Stddev	.00002	.00178	.00004	.0041	.00005
%RSD	11.113	11.379	29.634	26.59	74.293

#1	-.00013	.01695	.00016	-.0183	.00010
#2	-.00016	.01442	.00011	-.0125	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00393	-.00123	.01537	.04701	.00004
Stddev	.00018	.00008	.00105	.00577	.00026
%RSD	4.6245	6.1384	6.8194	12.277	686.64

#1	.00406	-.00118	.01611	.05109	.00022
#2	.00380	-.00129	.01463	.04293	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440852/1-A Acquired: 11/1/2018 4:20:11 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	-.00001	-.00033	.20778	.00142
Stddev	.00068	.00002	.00012	.00601	.00032
%RSD	64.110	147.44	35.356	2.8946	22.434

#1	-.00154	.00000	-.00041	.21204	.00119
#2	-.00058	-.00002	-.00025	.20353	.00164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.0091	-.00231	.00156	-.04257
Stddev	.00059	.0032	.00052	.00157	.01488
%RSD	135.43	35.58	22.527	100.70	34.943

#1	.00085	.0114	-.00268	.00267	-.03205
#2	.00002	.0068	-.00194	.00045	-.05309

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00072	-.00013	-.00013	.00045	-.00037
Stddev	.00045	.00003	.00011	.00120	.00030
%RSD	62.645	26.184	86.837	269.56	81.017

#1	-.00104	-.00016	-.00005	-.00041	-.00058
#2	-.00040	-.00011	-.00021	.00130	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: MB 480-440852/1-A Acquired: 11/1/2018 4:20:11 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00115**
 Stddev .00000
 %RSD .10146

#1 **.00115**
 #2 **.00115**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2772.5	4344.5	129910.	7679.9
Stddev	9.3	14.3	13.	13.0
%RSD	.33550	.32896	.01026	.16966

#1	2765.9	4334.4	129920.	7670.7
#2	2779.1	4354.6	129900.	7689.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.950%	105.32%	99.438%	97.001%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 4:24:03 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50272	24.157	F .44524	F .43771	.49985	.49349	24.344
Stddev	.00123	.077	.00436	.00055	.00318	.00023	.012
%RSD	.24394	.31726	.97849	.12580	.63630	.04733	.05024

#1	.50358	24.211	.44216	.43732	.49760	.49332	24.353
#2	.50185	24.103	.44832	.43810	.50210	.49365	24.336

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.50000	.50000			
Range			-10.000%	-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45779	-.0104	.48188	.51589	.49582	24.550	25.258
Stddev	.00031	.0161	.00004	.00131	.00033	.073	.046
%RSD	.06791	155.1	.00911	.25318	.06617	.29684	.18059

#1	.45757	.0010	.48191	.51496	.49559	24.602	25.290
#2	.45801	-.0218	.48185	.51681	.49606	24.499	25.225

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48629	24.388	.52520	.45113	25.865	.50519	.47504
Stddev	.00189	.021	.00022	.00059	.086	.00087	.00147
%RSD	.38837	.08512	.04170	.13187	.33165	.17193	.30848

#1	.48762	24.402	.52505	.45071	25.926	.50580	.47401
#2	.48495	24.373	.52536	.45155	25.804	.50457	.47608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 11/1/2018 4:24:03 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.47	.45439	.46823	23.657	.49157	.53344	.49834
Stddev	.07	.00065	.00068	.093	.00218	.00143	.00100
%RSD	.3102	.14276	.14577	.39145	.44301	.26898	.19974

#1	22.42	.45485	.46871	23.592	.49003	.53446	.49904
#2	22.52	.45393	.46775	23.722	.49311	.53243	.49764

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25.00						
Range	-10.00%						

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46564	.51984	.49321
Stddev	.00087	.00209	.00178
%RSD	.18783	.40188	.36180

#1	.46502	.51837	.49195
#2	.46626	.52132	.49448

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2627.9	4239.5	124660.	7494.0
Stddev	1.2	6.5	419.	20.4
%RSD	.04529	.15404	.33579	.27200

#1	2628.8	4244.1	124960.	7479.5
#2	2627.1	4234.9	124370.	7508.4

Sample Name: CCB-4957862 Acquired: 11/1/2018 4:27:46 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.00248	.00088	.00255	-.00001	-.00007	.00419	-.00004
Stddev	.00007	.01015	.00003	.00015	.00001	.00002	.00179	.00001
%RSD	46.132	409.81	3.7819	5.8148	108.09	26.189	42.863	22.101

#1	-.00010	-.00966	.00090	.00265	-.00000	-.00006	.00545	-.00004
#2	-.00021	.00470	.00085	.00244	-.00002	-.00008	.00292	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.00010	-.00011	-.00117	.00246	.00200	.00041	-.00385
Stddev	.0024	.00014	.00013	.00010	.00091	.00077	.00071	.00397
%RSD	1132.	139.95	117.21	8.9176	36.792	38.580	171.93	103.06

#1	.0019	.00000	-.00020	-.00110	.00182	.00255	-.00009	-.00666
#2	-.0015	.00020	-.00002	-.00124	.00310	.00146	.00091	-.00104

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00022	.13680	-.00014	.00019	.0077	-.00209	-.00158
Stddev	.00002	.00009	.00368	.00010	.00120	.0013	.00168	.00181
%RSD	19.744	42.370	2.6916	71.929	636.41	16.67	80.317	114.66

#1	.00007	.00016	.13940	-.00007	.00104	.0086	-.00090	-.00030
#2	.00009	.00029	.13419	-.00022	-.00066	.0068	-.00328	-.00286

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 4:27:46 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04292	-.00047	-.00013	.00004	.00068	-.00030	.00055
Stddev	.00473	.00048	.00002	.00020	.00078	.00005	.00065
%RSD	11.020	100.44	11.681	572.44	114.77	16.361	119.88

#1	-.04627	-.00014	-.00014	-.00011	.00013	-.00026	.00008
#2	-.03958	-.00081	-.00012	.00018	.00123	-.00033	.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2775.0	4345.8	128630.	7551.6
Stddev	1.9	4.6	412.	18.9
%RSD	.06933	.10470	.32000	.24997

#1	2773.6	4342.6	128920.	7565.0
#2	2776.3	4349.0	128340.	7538.3

Sample Name: CCVL-4970377 Acquired: 11/1/2018 4:31:39 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00581	.20476	.01336	.01949	.00202	.00203	.49926	.00200
Stddev	.00041	.00094	.00017	.00033	.00001	.00001	.00131	.00012
%RSD	7.0266	.45732	1.2359	1.6806	.59062	.47500	.26158	5.7862
#1	.00609	.20410	.01324	.01925	.00203	.00203	.49834	.00192
#2	.00552	.20542	.01347	.01972	.00201	.00204	.50018	.00208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0204	.00384	.00429	.00796	.05118	.45958	.02827	.19654
Stddev	.0300	.00014	.00026	.00027	.00188	.01687	.00060	.00243
%RSD	147.0	3.6062	5.9827	3.4045	3.6700	3.6710	2.1367	1.2343
#1	.0008	.00374	.00447	.00816	.05251	.47151	.02869	.19825
#2	-.0416	.00394	.00411	.00777	.04986	.44765	.02784	.19482

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00320	.00849	1.0874	.01059	.00937	.1787	.01560	.02237
Stddev	.00004	.00013	.0005	.00008	.00098	.0023	.00001	.00269
%RSD	1.1423	1.5663	.04481	.75490	10.458	1.308	.06713	12.022
#1	.00323	.00858	1.0878	.01064	.01006	.1804	.01559	.02427
#2	.00317	.00839	1.0871	.01053	.00867	.1771	.01560	.02047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 11/1/2018 4:31:39 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42605	.00843	.00518	.00460	.01815	.00487	.01029
Stddev	.01460	.00046	.00005	.00016	.00038	.00005	.00041
%RSD	3.4278	5.4064	1.0110	3.3684	2.0926	1.1022	4.0045

#1	.41573	.00875	.00522	.00471	.01842	.00483	.01058
#2	.43638	.00811	.00514	.00449	.01788	.00491	.00999

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2782.3	4383.2	128800.	7518.2
Stddev	1.0	3.8	3.	70.9
%RSD	.03574	.08688	.00228	.94339

#1	2781.6	4385.9	128810.	7468.0
#2	2783.0	4380.5	128800.	7568.3

Sample Name: LCS 480-440852/2-A Acquired: 11/1/2018 4:35:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04978	9.7540	.18384	.18596	.20022
Stddev	.00012	.0480	.00041	.00053	.00037
%RSD	.24606	.49175	.22330	.28763	.18689

#1	.04987	9.7200	.18355	.18558	.20049
#2	.04970	9.7879	.18413	.18634	.19996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20451	9.6946	.18932	-.0196	.19077
Stddev	.00081	.0185	.00065	.0065	.00043
%RSD	.39636	.19090	.34331	32.97	.22629

#1	.20508	9.7076	.18886	-.0150	.19047
#2	.20393	9.6815	.18978	-.0241	.19108

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21200	.19409	9.9106	9.6924	.19007
Stddev	.00031	.00026	.0603	.0462	.00035
%RSD	.14414	.13542	.60883	.47628	.18655

#1	.21179	.19391	9.9533	9.7250	.19032
#2	.21222	.19428	9.8680	9.6597	.18981

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440852/2-A Acquired: 11/1/2018 4:35:30 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8850	.20368	.17903	10.032	.20949
Stddev	.0009	.00003	.00073	.035	.00045
%RSD	.00911	.01290	.40733	.34933	.21622

#1	9.8857	.20366	.17851	10.057	.20917
#2	9.8844	.20370	.17954	10.007	.20981

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19209	9.098	.18221	.18968	9.3448
Stddev	.00103	.060	.00022	.00016	.0110
%RSD	.53425	.6637	.12333	.08517	.11746

#1	.19137	9.056	.18237	.18979	9.3371
#2	.19282	9.141	.18205	.18957	9.3526

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19517	.21047	.19699	.18995	.20355
Stddev	.00190	.00097	.00034	.00012	.00034
%RSD	.97216	.46177	.17079	.06110	.16616

#1	.19383	.21116	.19675	.18987	.20379
#2	.19651	.20978	.19723	.19003	.20331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: LCS 480-440852/2-A Acquired: 11/1/2018 4:35:30 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20407**
 Stddev .00113
 %RSD .55348

#1 **.20327**
 #2 **.20487**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2698.0	4279.7	127700.	7632.9
Stddev	8.0	18.9	100.	23.9
%RSD	.29522	.44156	.07858	.31265

#1	2703.7	4293.0	127770.	7616.0
#2	2692.4	4266.3	127630.	7649.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.292%	103.75%	97.748%	96.408%
Range				

Sample Name: 460-166941-E-1-A Acquired: 11/1/2018 4:39:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.01446	.00137	1.1593	.52888
Stddev	.00024	.03220	.00147	.0029	.00092
%RSD	34.198	222.58	107.19	.25274	.17383

#1	-.00089	-.00830	.00033	1.1572	.52953
#2	-.00054	.03723	.00240	1.1614	.52823

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	399.10	.00034	.0024	-.00075
Stddev	.00002	.64	.00004	.0074	.00016
%RSD	18.890	.16122	11.503	302.4	20.839

#1	.00009	398.65	.00037	.0077	-.00086
#2	.00011	399.56	.00032	-.0028	-.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00114	22.880	18.493	.04669
Stddev	.00016	.00025	.083	.033	.00003
%RSD	52.362	21.800	.36152	.17577	.06174

#1	.00042	-.00096	22.939	18.470	.04667
#2	.00019	-.00131	22.822	18.516	.04671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-1-A Acquired: 11/1/2018 4:39:09 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	129.59	3.2063	.00005	F 1474.2	.00015
Stddev	.01	.0008	.00003	6.6	.00014
%RSD	.01100	.02622	63.461	.44690	96.978

#1	129.58	3.2057	.00008	1478.8	.00025
#2	129.60	3.2069	.00003	1469.5	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	26.87	-.00183	-.00707	14.899
Stddev	.00085	.09	.00010	.00542	.040
%RSD	191.25	.3481	5.1963	76.614	.27073

#1	-.00105	26.81	-.00177	-.01090	14.928
#2	.00016	26.94	-.00190	-.00324	14.871

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	5.1531	-.00079	.00047	-.00029
Stddev	.00066	.0275	.00022	.00077	.00019
%RSD	753.61	.53442	28.599	162.91	65.235

#1	.00055	5.1725	-.00095	.00102	-.00016
#2	-.00038	5.1336	-.00063	-.00007	-.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-1-A Acquired: 11/1/2018 4:39:09 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00086**
 Stddev .00046
 %RSD 53.995

#1 **.00119**
 #2 **.00053**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2043.5	3656.5	107430.	7041.3
Stddev	2.4	5.7	102.	42.0
%RSD	.11872	.15566	.09468	.59610

#1	2045.2	3660.5	107510.	7011.6
#2	2041.8	3652.5	107360.	7071.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	72.933%	88.640%	82.236%	88.936%
Range				

Sample Name: 460-166941-E-2-A Acquired: 11/1/2018 4:43:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	-.00858	.08423	2.1827	.54238
Stddev	.00048	.01320	.00041	.0026	.00234
%RSD	214.44	153.90	.48347	.11789	.43131

#1	.00012	.00076	.08452	2.1809	.54404
#2	-.00056	-.01792	.08394	2.1846	.54073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00000	50.740	.00034	-.0054	.01055
Stddev	.00004	.147	.00004	.0154	.00025
%RSD	3304.3	.28941	11.661	285.0	2.3300

#1	.00003	50.844	.00037	.0055	.01072
#2	-.00003	50.636	.00031	-.0163	.01037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00742	-.00143	56.730	101.30	.00276
Stddev	.00041	.00032	.079	.20	.00027
%RSD	5.4813	22.287	.13873	.19956	9.9110

#1	.00713	-.00165	56.675	101.16	.00256
#2	.00771	-.00120	56.786	101.45	.00295

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-2-A Acquired: 11/1/2018 4:43:18 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	100.72	.88879	.00180	892.12	.05953
Stddev	.16	.00079	.00023	2.91	.00018
%RSD	.16116	.08917	12.819	.32604	.30431

#1	100.61	.88823	.00196	890.07	.05940
#2	100.84	.88935	.00163	894.18	.05966

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00249	9.987	.00110	-.00275	6.9179
Stddev	.00068	.029	.00070	.00124	.0361
%RSD	27.304	.2918	63.596	44.973	.52227

#1	.00298	9.966	.00160	-.00362	6.8923
#2	.00201	10.01	.00061	-.00187	6.9434

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00174	.80747	.00198	.00013	.01499
Stddev	.00031	.00309	.00009	.00034	.00054
%RSD	17.939	.38239	4.4120	262.03	3.6012

#1	.00152	.80529	.00191	-.00011	.01538
#2	.00196	.80966	.00204	.00037	.01461

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-2-A Acquired: 11/1/2018 4:43:18 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00428**
 Stddev .00036
 %RSD 8.4104

#1 **.00454**
 #2 **.00403**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2220.8	3853.6	114580.	7405.9
Stddev	.5	2.1	130.	.6
%RSD	.02451	.05532	.11327	.00848

#1	2220.4	3855.1	114490.	7406.4
#2	2221.2	3852.1	114680.	7405.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	79.259%	93.418%	87.708%	93.541%
Range				

Sample Name: 460-166941-E-3-A Acquired: 11/1/2018 4:47:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	.00480	.01972	1.0418	.26185
Stddev	.00018	.02107	.00063	.0013	.00043
%RSD	26.907	438.45	3.2044	.12788	.16499

#1	-.00055	-.01009	.01927	1.0427	.26154
#2	-.00081	.01970	.02016	1.0409	.26215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	43.769	.00011	-.0126	.00551
Stddev	.00000	.138	.00007	.0006	.00023
%RSD	2.3149	.31606	63.079	5.002	4.1238

#1	-.00007	43.671	.00006	-.0130	.00535
#2	-.00007	43.867	.00016	-.0121	.00567

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00345	-.00134	58.442	69.653	.00325
Stddev	.00024	.00024	.371	.173	.00012
%RSD	6.8734	17.799	.63492	.24906	3.6894

#1	.00362	-.00117	58.180	69.530	.00317
#2	.00328	-.00151	58.704	69.775	.00333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-3-A Acquired: 11/1/2018 4:47:15 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	90.958	2.5689	.00090	F 1023.4	.01549
Stddev	.217	.0003	.00003	.8	.00006
%RSD	.23835	.01277	3.3548	.08287	.40508

#1	91.111	2.5692	.00088	1024.0	.01554
#2	90.804	2.5687	.00092	1022.8	.01545

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	4.188	-.00051	-.01036	5.6243
Stddev	.00328	.010	.00138	.00326	.0301
%RSD	1277.1	.2463	271.77	31.422	.53547

#1	-.00206	4.196	-.00148	-.00806	5.6030
#2	.00258	4.181	.00047	-.01266	5.6456

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00159	.67380	.00119	-.00068	.00741
Stddev	.00036	.00081	.00007	.00065	.00000
%RSD	22.352	.12055	5.5039	96.172	.00914

#1	.00184	.67438	.00114	-.00022	.00741
#2	.00134	.67323	.00123	-.00113	.00741

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-3-A Acquired: 11/1/2018 4:47:15 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00263**
 Stddev .00044
 %RSD 16.784

#1 **.00231**
 #2 **.00294**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2212.6	3860.5	113550.	7317.7
Stddev	.4	2.0	286.	18.9
%RSD	.01905	.05180	.25231	.25762

#1	2212.9	3859.1	113750.	7331.0
#2	2212.3	3861.9	113350.	7304.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.966%	93.584%	86.915%	92.427%
Range				

Sample Name: 460-166941-E-4-A Acquired: 11/1/2018 4:51:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.00015	.02181	4.9019	.90270
Stddev	.00017	.00169	.00086	.0090	.00237
%RSD	40.136	1128.1	3.9623	.18394	.26279

#1	-.00056	.00135	.02242	4.9083	.90438
#2	-.00031	-.00105	.02120	4.8955	.90102

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	98.107	.00012	.0062	.00211
Stddev	.00006	.143	.00010	.0114	.00003
%RSD	59.548	.14563	82.105	185.0	1.5028

#1	-.00013	98.208	.00019	-.0019	.00209
#2	-.00005	98.006	.00005	.0143	.00213

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00327	-.00105	23.790	90.483	.01191
Stddev	.00018	.00012	.104	.072	.00090
%RSD	5.5910	11.202	.43581	.07973	7.5906

#1	.00314	-.00113	23.863	90.432	.01255
#2	.00340	-.00097	23.716	90.534	.01127

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-4-A Acquired: 11/1/2018 4:51:07 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.961	.20318	-.00010	422.83	.01404
Stddev	.126	.00097	.00010	1.04	.00004
%RSD	.21745	.47830	101.18	.24665	.26526

#1	58.050	.20386	-.00017	423.57	.01402
#2	57.872	.20249	-.00003	422.10	.01407

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00111	2.779	-.00012	-.00772	19.933
Stddev	.00057	.001	.00002	.00106	.010
%RSD	51.258	.0403	13.973	13.677	.05112

#1	.00071	2.778	-.00011	-.00697	19.940
#2	.00151	2.779	-.00013	-.00846	19.926

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	1.0917	.00127	.00177	.00257
Stddev	.00026	.0051	.00006	.00252	.00017
%RSD	59.942	.46578	4.3672	142.56	6.5080

#1	.00062	1.0953	.00130	-.00001	.00245
#2	.00025	1.0881	.00123	.00355	.00269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-4-A Acquired: 11/1/2018 4:51:07 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00520**
 Stddev .00063
 %RSD 12.138

#1 **.00565**
 #2 **.00475**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2325.0	3936.5	117270.	7363.5
Stddev	.8	6.5	259.	29.1
%RSD	.03316	.16426	.22102	.39580

#1	2324.5	3931.9	117090.	7342.9
#2	2325.6	3941.0	117460.	7384.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	82.980%	95.427%	89.767%	93.005%
Range				

Sample Name: 460-166941-D-5-A Acquired: 11/1/2018 4:55:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00020	.00053	.00487	.00005
Stddev	.00020	.02558	.00127	.00033	.00002
%RSD	140.22	12930.	238.97	6.8229	34.635

#1	-.00029	-.01789	.00143	.00510	.00003
#2	-.00000	.01828	-.00037	.00463	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.01857	.00011	-.0045	.00003
Stddev	.00002	.00105	.00002	.0138	.00006
%RSD	16.564	5.6549	13.477	307.8	236.48

#1	-.00009	.01783	.00013	-.0142	-.00002
#2	-.00011	.01932	.00010	.0053	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00102	.00480	.12448	.00046
Stddev	.00012	.00000	.00163	.00132	.00038
%RSD	113.34	.28879	33.968	1.0570	82.743

#1	.00002	-.00102	.00364	.12541	.00019
#2	.00019	-.00102	.00595	.12355	.00073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-D-5-A Acquired: 11/1/2018 4:55:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	-.00019	-.00023	.41332	.00016
Stddev	.00266	.00001	.00010	.00357	.00003
%RSD	888.80	3.5236	41.496	.86438	17.106

#1	.00158	-.00019	-.00016	.41079	.00014
#2	-.00218	-.00018	-.00030	.41585	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.0050	-.00031	.00026	.00157
Stddev	.00083	.0009	.00129	.00085	.01023
%RSD	215.47	17.76	422.05	324.42	651.45

#1	.00098	.0044	-.00122	.00086	.00880
#2	-.00020	.0057	.00061	-.00034	-.00566

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	-.00002	-.00029	.00010	-.00042
Stddev	.00038	.00003	.00018	.00021	.00007
%RSD	48.237	154.91	62.480	199.92	16.737

#1	-.00105	.00000	-.00042	-.00004	-.00047
#2	-.00052	-.00005	-.00016	.00025	-.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-D-5-A Acquired: 11/1/2018 4:55:06 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00137**
 Stddev .00038
 %RSD 27.536

#1 **.00163**
 #2 **.00110**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2784.2	4330.7	129480.	7571.4
Stddev	1.6	2.3	232.	9.7
%RSD	.05654	.05277	.17929	.12783

#1	2785.3	4332.3	129640.	7578.3
#2	2783.1	4329.1	129320.	7564.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.368%	104.98%	99.111%	95.632%
Range				

Sample Name: 460-166941-D-5-Asd@5 Acquired: 11/1/2018 4:58:58 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	-.00961	.00001	.00305	.00001
Stddev	.00017	.00695	.00200	.00035	.00002
%RSD	99.073	72.326	34082.	11.389	268.04

#1	-.00005	-.01452	-.00141	.00329	.00002
#2	-.00030	-.00469	.00142	.00280	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.01588	-.00002	.0148	.00018
Stddev	.00005	.00156	.00005	.0190	.00002
%RSD	40.969	9.8053	327.06	127.8	11.591

#1	-.00009	.01698	.00002	.0283	.00017
#2	-.00016	.01478	-.00006	.0014	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00092	.00030	.03960	.00123
Stddev	.00020	.00007	.00223	.00943	.00075
%RSD	128.54	7.8929	751.86	23.827	61.115

#1	.00029	-.00087	.00187	.04627	.00177
#2	.00001	-.00097	-.00128	.03293	.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-D-5-Asd@5 Acquired: 11/1/2018 4:58:58 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00206	-.00010	-.00034	.28589	.00018
Stddev	.00258	.00003	.00012	.01326	.00021
%RSD	125.35	28.402	34.301	4.6392	115.28

#1	-.00023	-.00008	-.00026	.27651	.00003
#2	-.00389	-.00013	-.00042	.29527	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.0034	-.00230	-.00100	-.05652
Stddev	.00020	.0011	.00147	.00071	.00987
%RSD	57.246	33.60	63.798	71.233	17.467

#1	.00049	.0026	-.00334	-.00151	-.04954
#2	.00021	.0042	-.00126	-.00050	-.06350

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	-.00011	-.00012	.00042	-.00025
Stddev	.00003	.00001	.00003	.00046	.00029
%RSD	11.469	6.6240	25.891	109.99	112.52

#1	-.00028	-.00010	-.00014	.00074	-.00046
#2	-.00023	-.00011	-.00010	.00009	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-D-5-Asd@5 Acquired: 11/1/2018 4:58:58 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00087**
 Stddev .00095
 %RSD 109.28

#1 **.00020**
 #2 **.00153**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2783.6	4316.4	130040.	7605.3
Stddev	1.6	7.0	205.	5.0
%RSD	.05670	.16290	.15741	.06634

#1	2782.5	4311.5	130190.	7601.7
#2	2784.7	4321.4	129900.	7608.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.345%	104.64%	99.543%	96.059%
Range				

Sample Name: 460-166941-D-5-Apds Acquired: 11/1/2018 5:02:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04961	9.9659	.19804	.18953	.20366
Stddev	.00014	.0014	.00039	.00018	.00011
%RSD	.27925	.01441	.19790	.09614	.05157

#1	.04951	9.9649	.19831	.18966	.20373
#2	.04971	9.9669	.19776	.18940	.20358

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21438	10.262	.20085	-.0093	.20120
Stddev	.00012	.006	.00024	.0066	.00029
%RSD	.05364	.05857	.11851	70.73	.14616

#1	.21430	10.266	.20068	-.0046	.20141
#2	.21446	10.257	.20102	-.0139	.20099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21813	.20420	10.420	9.8078	.19218
Stddev	.00056	.00104	.004	.0728	.00205
%RSD	.25503	.51050	.03851	.74235	1.0684

#1	.21853	.20494	10.423	9.7563	.19073
#2	.21774	.20347	10.417	9.8593	.19363

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-D-5-Apds Acquired: 11/1/2018 5:02:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.414	.21447	.19142	10.283	.21840
Stddev	.018	.00052	.00010	.003	.00030
%RSD	.17417	.24420	.05107	.02904	.13846

#1	10.426	.21484	.19135	10.281	.21861
#2	10.401	.21410	.19149	10.285	.21818

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20305	9.139	.19318	.19895	9.6205
Stddev	.00079	.003	.00134	.00286	.0382
%RSD	.38734	.0326	.69213	1.4366	.39654

#1	.20360	9.141	.19223	.19693	9.5935
#2	.20249	9.137	.19412	.20097	9.6474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19691	.21254	.20581	.20168	.21934
Stddev	.00015	.00052	.00054	.00053	.00020
%RSD	.07641	.24522	.26055	.26275	.09212

#1	.19680	.21218	.20619	.20205	.21920
#2	.19701	.21291	.20543	.20131	.21948

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-D-5-Apds Acquired: 11/1/2018 5:02:49 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.24243**
Stddev .00134
%RSD .55347

#1 **.24338**
#2 **.24148**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2702.0	4248.2	127270.	7529.7
Stddev	.9	3.3	70.	25.3
%RSD	.03229	.07671	.05470	.33564

#1	2701.4	4250.6	127320.	7511.8
#2	2702.6	4245.9	127220.	7547.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.434%	102.98%	97.419%	95.104%
Range				

Sample Name: 460-166941-E-7-B@5 Acquired: 11/1/2018 5:06:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00129	.02154	.00327	1.2555	.01311
Stddev	.00011	.02425	.00452	.0014	.00005
%RSD	8.7413	112.58	138.30	.10782	.39732

#1	-.00137	.03869	.00007	1.2565	.01315
#2	-.00121	.00439	.00646	1.2546	.01307

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00217	426.95	.00025	.0176	.03637
Stddev	.00002	3.99	.00002	.0263	.00009
%RSD	.74557	.93565	7.7908	149.1	.23625

#1	.00216	429.77	.00027	.0363	.03631
#2	.00218	424.12	.00024	-.0010	.03643

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01414	-.00345	168.47	11.661	.15463
Stddev	.00018	.00023	.01	.039	.00061
%RSD	1.2938	6.5608	.00327	.33104	.39439

#1	.01427	-.00361	168.46	11.634	.15506
#2	.01401	-.00329	168.47	11.688	.15420

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-7-B@5 Acquired: 11/1/2018 5:06:28 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	224.12	11.552	.00869	324.32	.36115
Stddev	.02	.003	.00000	1.30	.00044
%RSD	.01021	.02650	.02166	.40023	.12227

#1	224.14	11.554	.00869	325.23	.36146
#2	224.11	11.550	.00869	323.40	.36084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00359	F 116.2	.00457	-.00047	16.516
Stddev	.00023	.2	.00077	.00090	.019
%RSD	6.3378	.2014	16.934	191.17	.11235

#1	.00375	116.3	.00512	-.00111	16.503
#2	.00343	116.0	.00403	.00017	16.529

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00331	5.6635	.00081	-.00543	.00159
Stddev	.00001	.0196	.00016	.00164	.00021
%RSD	.19334	.34652	19.843	30.224	13.220

#1	.00331	5.6497	.00070	-.00427	.00144
#2	.00330	5.6774	.00093	-.00659	.00174

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-7-B@5 Acquired: 11/1/2018 5:06:28 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.36665**
 Stddev .00114
 %RSD .31215

#1 **.36584**
 #2 **.36746**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2178.7	3706.1	113700.	7281.3
Stddev	6.3	13.7	146.	36.2
%RSD	.29104	.36930	.12851	.49759

#1	2174.2	3696.4	113600.	7255.7
#2	2183.2	3715.8	113800.	7306.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.757%	89.842%	87.032%	91.967%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 5:10:37 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50182	24.418	.45343	F .44229	.49901	.48633	24.265
Stddev	.00100	.035	.00025	.00059	.00078	.00043	.058
%RSD	.19914	.14455	.05447	.13350	.15596	.08852	.23936

#1	.50252	24.393	.45326	.44187	.49956	.48603	24.224
#2	.50111	24.443	.45361	.44271	.49846	.48664	24.306

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				-10.000%			

Elem	Cd2288	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46370	.0022	.48316	.51624	.49481	24.347	25.063
Stddev	.00071	.0404	.00000	.00228	.00035	.029	.094
%RSD	.15385	1831.	.00061	.44239	.07133	.11984	.37700

#1	.46319	.0308	.48316	.51785	.49456	24.367	25.129
#2	.46420	-.0264	.48317	.51462	.49506	24.326	24.996

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48852	24.318	.52095	.46134	25.922	.50160	.47909
Stddev	.00061	.072	.00076	.00045	.050	.00013	.00098
%RSD	.12544	.29807	.14554	.09688	.19291	.02667	.20395

#1	.48895	24.369	.52149	.46102	25.957	.50150	.47840
#2	.48808	24.267	.52041	.46166	25.887	.50169	.47978

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV-4954075 Acquired: 11/1/2018 5:10:37 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899	Sr4077	Ti3349
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.91	.45857	.46670	24.682	.49006	.53485	.49549
Stddev	.04	.00017	.00170	.021	.00078	.00071	.00054
%RSD	.1657	.03781	.36393	.08475	.15925	.13365	.10853

#1	22.88	.45845	.46550	24.667	.48950	.53536	.49587
#2	22.94	.45869	.46790	24.697	.49061	.53435	.49511

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm
Avg	.46834	.52016	.49572
Stddev	.00038	.00024	.00219
%RSD	.08033	.04704	.44226

#1	.46860	.52033	.49727
#2	.46807	.51999	.49417

Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2642.3	4211.2	125950.	7498.8
Stddev	3.1	5.3	317.	20.9
%RSD	.11878	.12511	.25171	.27878

#1	2644.5	4214.9	125730.	7513.6
#2	2640.1	4207.5	126180.	7484.0

Sample Name: CCB-4957862 Acquired: 11/1/2018 5:14:20 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	-.01403	.00229	.00234	.00001	-.00008	.00975	.00004
Stddev	.00016	.00309	.00072	.00018	.00001	.00002	.00333	.00011
%RSD	59.386	22.005	31.669	7.6739	101.52	27.847	34.204	275.85

#1	-.00038	-.01185	.00280	.00221	.00000	-.00007	.01210	.00011
#2	-.00015	-.01622	.00177	.00247	.00002	-.00010	.00739	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0161	.00006	-.00003	-.00114	.00185	.01786	.00011	.00096
Stddev	.0056	.00005	.00001	.00043	.00248	.00435	.00138	.00182
%RSD	34.90	85.056	32.196	37.670	133.58	24.382	1293.1	189.57

#1	-.0201	.00002	-.00004	-.00145	.00361	.01478	.00109	-.00033
#2	-.0121	.00009	-.00003	-.00084	.00010	.02094	-.00087	.00225

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.00038	.14419	-.00010	.00024	.0086	-.00129	.00153
Stddev	.00003	.00016	.00103	.00027	.00050	.0008	.00099	.00233
%RSD	16.614	41.459	.71729	267.90	203.72	9.467	76.710	152.32

#1	.00023	.00027	.14346	-.00029	-.00011	.0081	-.00199	.00317
#2	.00018	.00050	.14492	.00009	.00059	.0092	-.00059	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 5:14:20 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.02718	-.00007	-.00009	-.00010	.00102	-.00021	.00099
Stddev	.00692	.00067	.00001	.00019	.00080	.00038	.00086
%RSD	25.457	971.14	5.8911	196.14	78.518	181.20	87.092

#1	-.03207	.00041	-.00009	.00004	.00159	-.00047	.00159
#2	-.02229	-.00054	-.00009	-.00023	.00045	.00006	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.9	4302.3	129660.	7530.6
Stddev	.7	1.3	358.	6.9
%RSD	.02560	.03016	.27576	.09104

#1	2789.3	4303.2	129400.	7535.5
#2	2790.4	4301.4	129910.	7525.8

Sample Name: CCVL-4970377 Acquired: 11/1/2018 5:18:13 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00581	.19208	.01446	.01954	.00206	.00188	.50256	.00200
Stddev	.00021	.02178	.00288	.00021	.00003	.00006	.00123	.00000
%RSD	3.5638	11.339	19.900	1.0839	1.3897	3.4308	.24489	.19808

#1	.00567	.20748	.01650	.01939	.00204	.00184	.50169	.00200
#2	.00596	.17668	.01243	.01969	.00208	.00193	.50343	.00200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.00389	.00413	.00817	.04947	.45076	.02720	.20043
Stddev	.0061	.00000	.00011	.00026	.00147	.01503	.00045	.00224
%RSD	1154.	.11579	2.6491	3.1764	2.9632	3.3351	1.6629	1.1193

#1	-.0038	.00389	.00405	.00799	.05051	.44012	.02688	.20202
#2	.0048	.00390	.00421	.00836	.04844	.46139	.02752	.19885

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00315	.00888	1.1085	.01038	.00960	.1843	.01635	.02207
Stddev	.00001	.00009	.0026	.00026	.00067	.0022	.00120	.00210
%RSD	.32810	1.0066	.23517	2.4872	6.9430	1.219	7.3177	9.5370

#1	.00316	.00894	1.1104	.01056	.00913	.1859	.01551	.02356
#2	.00315	.00882	1.1067	.01019	.01007	.1827	.01720	.02058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCVL-4970377 Acquired: 11/1/2018 5:18:13 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42931	.00921	.00514	.00451	.01865	.00483	.01127
Stddev	.02613	.00001	.00012	.00004	.00040	.00013	.00010
%RSD	6.0855	.08458	2.2367	.77976	2.1466	2.6889	.86392

#1	.44778	.00921	.00506	.00448	.01893	.00492	.01134
#2	.41084	.00920	.00523	.00453	.01836	.00474	.01120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2794.9	4315.8	129550.	7457.7
Stddev	3.6	2.0	258.	4.5
%RSD	.12963	.04578	.19951	.06050

#1	2792.4	4314.4	129360.	7454.5
#2	2797.5	4317.2	129730.	7460.9

Sample Name: 460-166941-E-7-B Acquired: 11/1/2018 5:22:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.00652	.19422	.02317	6.1623	.06341
Stddev	.00049	.03315	.00275	.0058	.00003
%RSD	7.4629	17.068	11.877	.09343	.05157

#1	-.00617	.21766	.02511	6.1664	.06343
#2	-.00686	.17078	.02122	6.1583	.06339

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	2.0000				
Low Limit	-.00600				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01047	F 1832.6	-.00087	.0744	.17893
Stddev	.00007	14.6	.00025	.0023	.00044
%RSD	.71322	.79570	29.166	3.028	.24658

#1	.01052	1842.9	-.00069	.0760	.17924
#2	.01041	1822.3	-.00104	.0728	.17862

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06327	-.00504	F 767.69	67.288	.87339
Stddev	.00013	.00029	3.41	.052	.00061
%RSD	.20780	5.6682	.44374	.07656	.07023

#1	.06317	-.00484	770.10	67.252	.87295
#2	.06336	-.00524	765.28	67.325	.87382

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 460-166941-E-7-B Acquired: 11/1/2018 5:22:04 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 985.18	F 51.724	.04242	F 1683.6	1.7402
Stddev	2.13	.148	.00007	8.1	.0011
%RSD	.21669	.28641	.16765	.47955	.06461

#1	983.67	51.829	.04236	1689.3	1.7394
#2	986.69	51.620	.04247	1677.9	1.7410

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit	450.00	45.000		900.00	
Low Limit	-.20000	-.00300		-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02143	F 573.8	.01974	.01808	F 79.172
Stddev	.00014	.4	.00011	.00053	.057
%RSD	.63265	.0652	.54270	2.9067	.07190

#1	.02133	573.5	.01966	.01845	79.212
#2	.02153	574.1	.01981	.01771	79.132

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit		90.00			50.000
Low Limit		-.2000			-.50000

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02221	F 26.092	.00489	F -.03772	.01242
Stddev	.00035	.246	.00040	.00152	.00015
%RSD	1.5755	.94354	8.2045	4.0192	1.1852

#1	.02196	26.267	.00460	-.03665	.01231
#2	.02245	25.918	.00517	-.03879	.01252

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit		9.0000		18.000	
Low Limit		-.00500		-.02000	

Sample Name: 460-166941-E-7-B Acquired: 11/1/2018 5:22:04 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.5911**
 Stddev .0044
 %RSD .27550

#1 1.5880
 #2 1.5942

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1688.6	3058.2	97717.	6862.2
Stddev	.1	1.1	76.	44.8
%RSD	.00888	.03715	.07818	.65328

#1	1688.5	3059.0	97663.	6830.5
#2	1688.7	3057.4	97771.	6893.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	60.264%	74.135%	74.798%	86.674%
Range				

Sample Name: 166941-E-7-C MS Acquired: 11/1/2018 5:26:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05286	10.502	.23981	6.3581	.25943
Stddev	.00068	.012	.00250	.0200	.00146
%RSD	1.2865	.11630	1.0434	.31538	.56394

#1	.05334	10.494	.23804	6.3723	.26046
#2	.05238	10.511	.24158	6.3439	.25839

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19730	F 1855.6	.21584	.0727	.37865
Stddev	.00033	1.9	.00069	.0266	.00131
%RSD	.16860	.10078	.31935	36.63	.34514

#1	.19753	1857.0	.21632	.0538	.37957
#2	.19706	1854.3	.21535	.0915	.37772

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24791	.21663	F 793.74	82.046	1.1501
Stddev	.00000	.00042	.63	.043	.0015
%RSD	.00176	.19209	.07942	.05239	.13370

#1	.24791	.21634	794.18	82.076	1.1512
#2	.24791	.21693	793.29	82.015	1.1490

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 166941-E-7-C MS Acquired: 11/1/2018 5:26:19 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 1008.8	F 53.185	.21976	F 1761.8	1.9651
Stddev	5.0	.125	.00078	2.7	.0043
%RSD	.49499	.23543	.35315	.15577	.22085

#1	1012.3	53.273	.22030	1763.8	1.9681
#2	1005.3	53.096	.21921	1759.9	1.9620

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit	450.00	45.000		900.00	
Low Limit	-.20000	-.00300		-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20857	F 587.0	.22510	.26099	F 52.558
Stddev	.00503	2.3	.00361	.00688	.050
%RSD	2.4103	.3998	1.6041	2.6376	.09493

#1	.21212	588.6	.22255	.26585	52.594
#2	.20501	585.3	.22766	.25612	52.523

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit		90.00			50.000
Low Limit		-.2000			-.50000

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22220	F 27.067	.19404	.13986	.21209
Stddev	.00031	.110	.00025	.00557	.00112
%RSD	.14098	.40472	.13117	3.9843	.53018

#1	.22198	27.144	.19422	.13592	.21288
#2	.22242	26.989	.19386	.14380	.21129

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 166941-E-7-C MS Acquired: 11/1/2018 5:26:19 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.8247**
 Stddev .0059
 %RSD .32530

#1 **1.8289**
 #2 **1.8205**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1690.5	3070.1	97427.	6782.9
Stddev	1.1	3.7	294.	13.8
%RSD	.06456	.12178	.30180	.20348

#1	1689.7	3067.5	97219.	6773.2
#2	1691.3	3072.8	97635.	6792.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	60.334%	74.425%	74.575%	85.672%
Range				

Sample Name: 166941-E-7-C MS@5 Acquired: 11/1/2018 5:30:31 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00894	2.0097	.04234	1.3048	.05210
Stddev	.00009	.0051	.00085	.0029	.00003
%RSD	.96142	.25574	2.0071	.22029	.05720

#1	.00888	2.0061	.04174	1.3028	.05212
#2	.00900	2.0134	.04294	1.3068	.05208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04133	425.20	.04062	-.0092	.07673
Stddev	.00006	1.22	.00005	.0130	.00023
%RSD	.14562	.28584	.13275	141.0	.29976

#1	.04129	424.34	.04058	-.0184	.07689
#2	.04137	426.06	.04066	-.0000	.07657

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05282	.03718	169.27	14.203	.19952
Stddev	.00006	.00031	.91	.050	.00020
%RSD	.12110	.83769	.53563	.35038	.09858

#1	.05286	.03740	168.63	14.238	.19966
#2	.05277	.03696	169.91	14.168	.19939

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 166941-E-7-C MS@5 Acquired: 11/1/2018 5:30:31 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	226.64	11.638	.04562	328.73	.40476
Stddev	.44	.004	.00017	.39	.00088
%RSD	.19350	.03402	.37326	.11862	.21689

#1	226.95	11.641	.04574	328.45	.40538
#2	226.33	11.635	.04550	329.00	.40414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04237	F 119.6	.04281	.03828	10.280
Stddev	.00021	.3	.00057	.00122	.003
%RSD	.48699	.2091	1.3367	3.1974	.02848

#1	.04251	119.4	.04321	.03741	10.278
#2	.04222	119.8	.04240	.03914	10.282

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04540	5.6092	.03967	.03353	.04188
Stddev	.00038	.0386	.00056	.00078	.00015
%RSD	.84312	.68769	1.4017	2.3200	.34968

#1	.04567	5.5819	.04006	.03298	.04198
#2	.04513	5.6365	.03928	.03408	.04178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 166941-E-7-C MS@5 Acquired: 11/1/2018 5:30:31 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.41587**
 Stddev .00157
 %RSD .37813

#1 **.41698**
 #2 **.41476**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2186.3	3694.1	114220.	7254.4
Stddev	3.0	2.1	243.	30.7
%RSD	.13694	.05675	.21257	.42349

#1	2184.1	3695.6	114050.	7276.1
#2	2188.4	3692.6	114390.	7232.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.027%	89.552%	87.431%	91.628%
Range				

Sample Name: 166941-E-7-D MSD Acquired: 11/1/2018 5:34:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05192	10.462	.24974	6.3498	.25895
Stddev	.00111	.015	.00452	.0151	.00021
%RSD	2.1329	.14390	1.8116	.23740	.08270

#1	.05271	10.451	.25294	6.3605	.25910
#2	.05114	10.472	.24654	6.3391	.25880

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19663	F 1834.2	.21903	.0437	.37719
Stddev	.00012	6.0	.00019	.0079	.00003
%RSD	.06178	.32894	.08484	17.97	.00730

#1	.19654	1829.9	.21916	.0492	.37721
#2	.19672	1838.4	.21889	.0381	.37718

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24694	.21573	F 776.32	81.011	1.1409
Stddev	.00077	.00002	2.55	.104	.0001
%RSD	.31020	.01121	.32794	.12896	.01140

#1	.24749	.21575	778.12	80.937	1.1408
#2	.24640	.21571	774.52	81.084	1.1410

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 166941-E-7-D MSD Acquired: 11/1/2018 5:34:35 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 1002.2	F 51.997	.22440	F 1729.2	1.9405
Stddev	6.9	.031	.00105	4.4	.0032
%RSD	.68996	.05924	.46844	.25491	.16391

#1	997.29	52.018	.22515	1732.3	1.9383
#2	1007.1	51.975	.22366	1726.1	1.9428

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit	450.00	45.000		900.00	
Low Limit	-.20000	-.00300		-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21461	F 588.2	.23175	.26410	48.660
Stddev	.00218	1.4	.00033	.00102	.065
%RSD	1.0170	.2337	.14111	.38546	.13354

#1	.21615	589.2	.23152	.26482	48.614
#2	.21306	587.3	.23198	.26338	48.706

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22420	F 26.603	.19468	.14239	.21160
Stddev	.00082	.101	.00013	.00303	.00032
%RSD	.36598	.38009	.06746	2.1245	.15177

#1	.22362	26.674	.19459	.14025	.21137
#2	.22478	26.531	.19478	.14452	.21182

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 166941-E-7-D MSD Acquired: 11/1/2018 5:34:35 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.7634**
 Stddev .0006
 %RSD .03112

#1 1.7638
 #2 1.7630

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1692.7	3055.1	97950.	6768.1
Stddev	.7	7.4	162.	3.3
%RSD	.03879	.24362	.16544	.04925

#1	1692.2	3049.9	98065.	6770.5
#2	1693.1	3060.4	97836.	6765.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	60.411%	74.061%	74.976%	85.485%
Range				

Sample Name: 166941-E-7-D MSD@5 Acquired: 11/1/2018 5:38:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00968	2.1399	.04612	1.3543	.05452
Stddev	.00096	.0069	.00137	.0023	.00011
%RSD	9.9074	.32392	2.9688	.16934	.20518

#1	.01036	2.1448	.04708	1.3559	.05460
#2	.00900	2.1350	.04515	1.3526	.05444

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04343	438.97	.04291	.0134	.07941
Stddev	.00005	.54	.00014	.0292	.00010
%RSD	.11252	.12248	.32013	217.3	.12919

#1	.04340	438.59	.04301	.0340	.07949
#2	.04346	439.35	.04281	-.0072	.07934

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05544	.03988	174.66	14.813	.21059
Stddev	.00013	.00067	.66	.006	.00085
%RSD	.22939	1.6692	.37773	.04197	.40201

#1	.05553	.03940	175.13	14.808	.21119
#2	.05535	.04035	174.19	14.817	.20999

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 166941-E-7-D MSD@5 Acquired: 11/1/2018 5:38:47 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	233.68	11.880	.04825	341.24	.41721
Stddev	.34	.027	.00014	.34	.00177
%RSD	.14483	.22370	.29801	.09968	.42454

#1	233.92	11.899	.04815	341.48	.41596
#2	233.44	11.861	.04835	341.00	.41846

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04686	F 125.2	.04533	.04200	10.045
Stddev	.00028	.1	.00175	.00046	.024
%RSD	.59481	.0722	3.8577	1.0873	.23460

#1	.04666	125.2	.04657	.04233	10.028
#2	.04706	125.3	.04409	.04168	10.061

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04621	5.8141	.04191	.03478	.04412
Stddev	.00035	.0051	.00014	.00052	.00008
%RSD	.75747	.08751	.32901	1.4809	.18495

#1	.04597	5.8177	.04181	.03441	.04418
#2	.04646	5.8105	.04201	.03514	.04406

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 166941-E-7-D MSD@5 Acquired: 11/1/2018 5:38:47 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.42391**
 Stddev .00273
 %RSD .64369

#1 **.42584**
 #2 **.42198**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2178.5	3676.0	114600.	7208.1
Stddev	6.0	1.5	276.	20.9
%RSD	.27590	.04201	.24074	.28984

#1	2182.8	3677.1	114410.	7193.3
#2	2174.3	3674.9	114800.	7222.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	77.752%	89.113%	87.721%	91.043%
Range				

Sample Name: 166941-B-7-A DU Acquired: 11/1/2018 5:42:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F -.00697	.25913	.02105	6.2350	.05603
Stddev	.00036	.01687	.00600	.0068	.00009
%RSD	5.1074	6.5082	28.503	.10944	.16356

#1	-.00672	.27106	.02529	6.2398	.05597
#2	-.00722	.24721	.01681	6.2302	.05610

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	2.0000				
Low Limit	-.00600				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01051	F 1864.3	-.00115	.0617	.19189
Stddev	.00009	3.2	.00016	.0121	.00062
%RSD	.81522	.17061	14.274	19.53	.32366

#1	.01045	1866.6	-.00104	.0532	.19145
#2	.01058	1862.1	-.00127	.0703	.19233

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06722	-.00337	F 804.91	70.043	.88903
Stddev	.00002	.00022	1.31	.067	.00268
%RSD	.03619	6.4206	.16250	.09511	.30140

#1	.06721	-.00352	805.83	70.090	.89092
#2	.06724	-.00322	803.98	69.996	.88713

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			540.00		
Low Limit			-.05000		

Sample Name: 166941-B-7-A DU Acquired: 11/1/2018 5:42:51 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F 1020.4	F 53.955	.04574	F 1784.6	1.8078
Stddev	1.4	.025	.00012	3.1	.0038
%RSD	.13438	.04647	.25465	.17408	.21105

#1	1019.4	53.973	.04582	1786.8	1.8051
#2	1021.3	53.938	.04566	1782.4	1.8105

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit	450.00	45.000		900.00	
Low Limit	-.20000	-.00300		-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02736	F 602.4	.02411	.01379	F 80.987
Stddev	.00046	.8	.00185	.00582	.028
%RSD	1.6809	.1327	7.6742	42.196	.03420

#1	.02768	603.0	.02542	.00967	81.007
#2	.02703	601.9	.02280	.01790	80.967

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit		90.00			50.000
Low Limit		-.2000			-.50000

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02271	F 26.949	.00614	F -.03824	.01328
Stddev	.00154	.022	.00010	.00172	.00031
%RSD	6.7826	.08017	1.5958	4.4906	2.2987

#1	.02380	26.934	.00607	-.03703	.01350
#2	.02162	26.964	.00621	-.03946	.01307

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
High Limit		9.0000		18.000	
Low Limit		-.00500		-.02000	

Sample Name: 166941-B-7-A DU Acquired: 11/1/2018 5:42:51 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.8224**
 Stddev .0033
 %RSD .18278

#1 1.8248
 #2 1.8201

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1667.8	3005.0	96126.	6594.3
Stddev	2.8	1.9	19.	20.2
%RSD	.16528	.06317	.02008	.30619

#1	1669.7	3003.6	96140.	6608.6
#2	1665.8	3006.3	96113.	6580.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	59.522%	72.846%	73.580%	83.291%
Range				

Sample Name: 166941-B-7-A DU@5 Acquired: 11/1/2018 5:47:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00158	.01152	.00584	1.2273	.01079
Stddev	.00009	.01104	.00235	.0017	.00002
%RSD	5.7924	95.854	40.211	.14139	.15754

#1	-.00164	.00371	.00751	1.2286	.01080
#2	-.00151	.01933	.00418	1.2261	.01078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00210	406.95	.00020	.0430	.03671
Stddev	.00001	1.83	.00001	.0052	.00023
%RSD	.68721	.44857	5.4155	12.16	.63639

#1	.00209	405.66	.00020	.0467	.03687
#2	.00211	408.24	.00021	.0393	.03654

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01364	-.00210	164.59	11.592	.14746
Stddev	.00029	.00036	.23	.005	.00057
%RSD	2.1079	17.091	.14194	.04740	.38523

#1	.01384	-.00236	164.43	11.589	.14786
#2	.01344	-.00185	164.76	11.596	.14705

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 166941-B-7-A DU@5 Acquired: 11/1/2018 5:47:06 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	220.00	11.328	.00885	320.29	.35347
Stddev	.36	.027	.00017	.08	.00131
%RSD	.16583	.23792	1.9398	.02365	.37144

#1	220.26	11.309	.00898	320.35	.35254
#2	219.74	11.347	.00873	320.24	.35440

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00411	F 117.7	.00483	-.00366	15.965
Stddev	.00074	.1	.00037	.00109	.004
%RSD	17.916	.0978	7.6591	29.790	.02254

#1	.00359	117.6	.00457	-.00443	15.962
#2	.00463	117.8	.00509	-.00289	15.967

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00387	5.3552	.00091	-.00552	.00204
Stddev	.00010	.0123	.00026	.00037	.00024
%RSD	2.6747	.22868	28.966	6.6763	11.538

#1	.00380	5.3465	.00109	-.00579	.00221
#2	.00394	5.3638	.00072	-.00526	.00187

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 166941-B-7-A DU@5 Acquired: 11/1/2018 5:47:06 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.39638**
 Stddev .00029
 %RSD .07233

#1 **.39618**
 #2 **.39658**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2186.7	3646.9	114220.	7118.7
Stddev	4.4	2.7	70.	24.4
%RSD	.19966	.07485	.06093	.34232

#1	2189.8	3648.8	114170.	7135.9
#2	2183.7	3644.9	114270.	7101.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	78.044%	88.406%	87.430%	89.913%
Range				

Sample Name: 460-166941-E-8-A Acquired: 11/1/2018 5:51:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	.01227	.00215	1.0279	.04834
Stddev	.00010	.01225	.00240	.0025	.00005
%RSD	13.310	99.859	111.64	.24200	.10593

#1	-.00067	.00361	.00384	1.0262	.04838
#2	-.00080	.02093	.00045	1.0297	.04831

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	217.93	.00044	.0066	.00005
Stddev	.00001	.17	.00009	.0212	.00008
%RSD	6.7735	.07646	19.815	319.5	153.46

#1	-.00009	218.05	.00038	-.0084	.00011
#2	-.00009	217.82	.00050	.0216	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00098	.00624	.21132	11.461	.00472
Stddev	.00007	.00003	.00124	.000	.00015
%RSD	7.5295	.55197	.58894	.00205	3.1082

#1	.00104	.00622	.21220	11.461	.00461
#2	.00093	.00627	.21044	11.461	.00482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-8-A Acquired: 11/1/2018 5:51:14 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.551	.12240	.00163	69.847	.01306
Stddev	.154	.00007	.00007	.129	.00013
%RSD	.27729	.05371	4.4581	.18447	.99108

#1	55.660	.12244	.00168	69.756	.01296
#2	55.442	.12235	.00157	69.938	.01315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00112	F 106.1	.00066	-.00891	8.9338
Stddev	.00059	.1	.00008	.00320	.0221
%RSD	52.919	.1363	12.757	35.947	.24786

#1	-.00070	106.2	.00060	-.00664	8.9181
#2	-.00154	106.0	.00072	-.01117	8.9494

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.00			
Low Limit		-.2000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00111	1.0214	-.00041	.00269	.00168
Stddev	.00009	.0018	.00042	.00043	.00012
%RSD	8.3910	.17325	103.71	15.966	6.8570

#1	-.00104	1.0201	-.00071	.00239	.00160
#2	-.00118	1.0226	-.00011	.00299	.00176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-8-A Acquired: 11/1/2018 5:51:14 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02448**
 Stddev .00024
 %RSD .96032

#1 .02465
 #2 .02432

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2459.4	3921.7	120650.	7130.2
Stddev	2.3	1.3	397.	17.8
%RSD	.09298	.03248	.32903	.24934

#1	2457.8	3922.6	120370.	7117.6
#2	2461.0	3920.8	120930.	7142.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.775%	95.068%	92.353%	90.059%
Range				

Sample Name: 460-166941-E-9-A Acquired: 11/1/2018 5:55:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	.04794	.00200	1.0254	.22813
Stddev	.00022	.00584	.00066	.0016	.00002
%RSD	22.641	12.182	33.181	.15942	.00904

#1	-.00115	.05207	.00153	1.0243	.22815
#2	-.00083	.04381	.00247	1.0266	.22812

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00105	217.60	.00023	.0112	-.00023
Stddev	.00009	.14	.00002	.0199	.00003
%RSD	8.9662	.06626	10.085	177.2	11.445

#1	.00099	217.70	.00021	-.0028	-.00025
#2	.00112	217.49	.00025	.0253	-.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00496	-.00117	67.470	15.006	.18621
Stddev	.00023	.00046	.253	.003	.00028
%RSD	4.6854	39.160	.37467	.01896	.15115

#1	.00512	-.00150	67.291	15.008	.18601
#2	.00479	-.00085	67.648	15.004	.18640

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-9-A Acquired: 11/1/2018 5:55:01 Type: Unk
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}3	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	97.521	4.3113	.00311	190.86	.00716
Stddev	.056	.0056	.00020	.25	.00002
%RSD	.05694	.13078	6.5738	.13109	.30863

#1	97.482	4.3152	.00296	191.03	.00714
#2	97.560	4.3073	.00325	190.68	.00717

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00093	4.723	-.00006	-.00393	21.117
Stddev	.00121	.018	.00041	.00580	.003
%RSD	130.07	.3774	719.56	147.59	.01593

#1	.00179	4.711	-.00035	-.00803	21.115
#2	.00007	4.736	.00023	.00017	21.120

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00042	2.8706	-.00017	-.00172	.00015
Stddev	.00004	.0020	.00017	.00078	.00009
%RSD	8.4789	.06921	100.47	45.298	57.834

#1	.00039	2.8720	-.00028	-.00117	.00022
#2	.00044	2.8692	-.00005	-.00227	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 460-166941-E-9-A Acquired: 11/1/2018 5:55:01 Type: Unk
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00383**
 Stddev .00030
 %RSD 7.8878

#1 **.00404**
 #2 **.00362**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2344.8	3837.8	118530.	7141.1
Stddev	.4	12.0	237.	5.8
%RSD	.01493	.31253	.19997	.08169

#1	2344.6	3846.3	118700.	7145.2
#2	2345.1	3829.3	118360.	7136.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	83.686%	93.034%	90.729%	90.196%
Range				

Sample Name: CCV-4954075 Acquired: 11/1/2018 5:58:59 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50906	24.649	.47612	.45961	.50821	.48498	24.892	.48390
Stddev	.00025	.105	.00223	.00060	.00142	.00056	.014	.00015
%RSD	.04864	.42687	.46756	.12973	.28004	.11494	.05633	.03156
#1	.50888	24.575	.47454	.45918	.50921	.48459	24.902	.48379
#2	.50923	24.724	.47769	.46003	.50720	.48537	24.882	.48401

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0189	.49320	.52334	.49520	24.468	25.366	.49586	24.699
Stddev	.0076	.00053	.00065	.00050	.067	.034	.00185	.007
%RSD	40.28	.10791	.12352	.10172	.27286	.13459	.37406	.02885
#1	-.0135	.49282	.52379	.49484	24.421	25.342	.49717	24.704
#2	-.0242	.49358	.52288	.49555	24.515	25.390	.49455	24.694

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52384	.48618	26.033	.50224	.49117	24.02	.47231	.47614
Stddev	.00041	.00004	.030	.00014	.00158	.04	.00026	.00488
%RSD	.07889	.00871	.11410	.02866	.32242	.1671	.05408	1.0257
#1	.52355	.48615	26.012	.50234	.49229	24.05	.47249	.47269
#2	.52414	.48621	26.054	.50214	.49005	23.99	.47213	.47959

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCV-4954075 Acquired: 11/1/2018 5:58:59 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.082	.50544	.53482	.49738	.48520	.52642	.51418
Stddev	.012	.00106	.00176	.00040	.00025	.00165	.00123
%RSD	.04713	.21013	.32931	.07943	.05051	.31424	.23918

#1	26.073	.50469	.53358	.49710	.48538	.52525	.51505
#2	26.090	.50619	.53607	.49766	.48503	.52759	.51331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2612.6	4075.6	124060.	7114.2
Stddev	8.0	9.5	57.	22.0
%RSD	.30663	.23353	.04616	.30893

#1	2606.9	4068.9	124020.	7129.7
#2	2618.3	4082.3	124100.	7098.6

Sample Name: CCB-4957862 Acquired: 11/1/2018 6:02:43 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	-.00642	.00008	.00456	.00001	-.00006	.03169	.00007
Stddev	.00024	.00944	.00091	.00045	.00001	.00002	.00287	.00004
%RSD	82.890	146.92	1211.3	9.9567	89.345	31.144	9.0648	57.153

#1	-.00046	-.01309	-.00057	.00488	.00000	-.00005	.02966	.00004
#2	-.00012	.00025	.00072	.00424	.00001	-.00007	.03372	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0056	.00010	.00031	-.00057	.01377	.03339	.00061	.01076
Stddev	.0077	.00006	.00011	.00017	.00006	.02633	.00051	.00273
%RSD	138.3	57.216	36.513	29.266	.45857	78.871	82.600	25.322

#1	-.0001	.00014	.00039	-.00069	.01373	.01477	.00025	.00884
#2	-.0110	.00006	.00023	-.00045	.01382	.05200	.00097	.01269

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.00044	.25868	-.00001	.00058	.0350	-.00155	.00117
Stddev	.00006	.00019	.00405	.00037	.00041	.0001	.00035	.00143
%RSD	8.4653	42.264	1.5673	4036.4	70.972	.2464	22.635	121.92

#1	.00075	.00031	.25581	.00025	.00087	.0351	-.00130	.00016
#2	.00066	.00058	.26155	-.00027	.00029	.0350	-.00180	.00218

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 6:02:43 Type: QC
 Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
 User: LMH Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12183	-.00029	.00027	-.00009	-.00012	-.00003	.00036
Stddev	.00998	.00022	.00004	.00016	.00052	.00008	.00001
%RSD	8.1894	76.124	16.442	172.52	438.08	227.65	1.5812

#1	.11478	-.00013	.00030	.00002	.00025	.00002	.00037
#2	.12889	-.00044	.00024	-.00021	-.00049	-.00009	.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2784.1	4213.8	129190.	7241.1
Stddev	6.6	6.1	545.	3.6
%RSD	.23699	.14505	.42194	.04976

#1	2779.4	4209.5	129580.	7243.7
#2	2788.8	4218.1	128800.	7238.6

Sample Name: CCVL-4970377 Acquired: 11/1/2018 6:06:36 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00559	.19007	.01496	.02197	.00207	.00191	.52758	.00199
Stddev	.00025	.01700	.00045	.00019	.00001	.00000	.00220	.00002
%RSD	4.5382	8.9431	2.9991	.84429	.36611	.06348	.41618	.79749
#1	.00577	.20209	.01528	.02184	.00206	.00191	.52603	.00200
#2	.00541	.17805	.01464	.02210	.00207	.00191	.52913	.00198

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0087	.00391	.00416	.00841	.05714	.55342	.02735	.21226
Stddev	.0074	.00009	.00004	.00015	.00242	.01806	.00024	.00228
%RSD	85.13	2.4248	.88619	1.7924	4.2291	3.2637	.86644	1.0753
#1	-.0035	.00398	.00414	.00830	.05885	.56619	.02719	.21065
#2	-.0140	.00384	.00419	.00852	.05544	.54064	.02752	.21388

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00366	.00936	1.2133	.01034	.01136	.2152	.01671	.02245
Stddev	.00001	.00009	.0071	.00024	.00019	.0010	.00070	.00194
%RSD	.33193	1.0045	.58406	2.3403	1.6629	.4561	4.1784	8.6378
#1	.00367	.00942	1.2183	.01017	.01123	.2159	.01622	.02108
#2	.00365	.00929	1.2083	.01052	.01150	.2145	.01721	.02382

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: CCVL-4970377 Acquired: 11/1/2018 6:06:36 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51244	.00932	.00541	.00456	.01935	.00480	.01056
Stddev	.02016	.00014	.00006	.00002	.00050	.00016	.00059
%RSD	3.9335	1.5087	1.1107	.48736	2.5697	3.4097	5.5426

#1	.49819	.00942	.00536	.00458	.01971	.00468	.01015
#2	.52669	.00922	.00545	.00454	.01900	.00491	.01097

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2793.4	4231.0	129670.	7270.5
Stddev	2.0	16.0	412.	1.2
%RSD	.07177	.37886	.31769	.01679

#1	2794.8	4242.4	129960.	7271.4
#2	2792.0	4219.7	129380.	7269.7

Sample Name: ICSA-4901305 Acquired: 11/1/2018 6:10:27 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00208	482.74	-.00295	.00269	.00093	-.00008	459.56	.00012
Stddev	.00050	.22	.00703	.00023	.00001	.00001	3.70	.00007
%RSD	23.853	.04479	238.74	8.4972	.95826	11.400	.80571	60.693

#1	-.00173	482.58	-.00792	.00285	.00094	-.00008	456.94	.00007
#2	-.00243	482.89	.00203	.00252	.00093	-.00009	462.18	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0683	.00006	-.00172	.00001	181.65	.09874	.00494	501.75
Stddev	.0502	.00008	.00031	.00001	.78	.02480	.00023	1.55
%RSD	73.55	131.81	18.107	110.27	.43167	25.115	4.7347	.30926

#1	.1038	.00000	-.00193	.00000	181.09	.11628	.00511	502.85
#2	.0328	.00011	-.00150	.00002	182.20	.08121	.00478	500.65

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00038	.48270	.00041	-.00052	.0400	.01370	.00361
Stddev	.00013	.00019	.01741	.00032	.00137	.0017	.00045	.00109
%RSD	1037.9	50.004	3.6061	78.594	264.19	4.266	3.2499	30.195

#1	-.00010	.00051	.47039	.00064	.00045	.0388	.01339	.00438
#2	.00008	.00025	.49501	.00018	-.00148	.0413	.01402	.00284

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICSA-4901305 Acquired: 11/1/2018 6:10:27 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00775	-0.00307	.01622	-0.00048	-0.00119	-0.00027	.00404
Stddev	.00145	.00185	.00005	.00053	.00038	.00023	.00181
%RSD	18.686	60.395	.29962	111.13	31.771	84.690	44.632

#1	-0.00673	-0.00176	.01619	-0.00010	-0.00092	-0.00011	.00277
#2	-0.00877	-0.00438	.01626	-0.00085	-0.00146	-0.00044	.00532

Check ?	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2176.0	3681.7	113430.	7001.6
Stddev	.8	2.4	393.	8.6
%RSD	.03708	.06396	.34685	.12349

#1	2175.4	3680.0	113150.	7007.7
#2	2176.6	3683.4	113710.	6995.5

Sample Name: ICSAB-4954073 Acquired: 11/1/2018 6:14:26 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21750	507.71	.10033	.00719	.50089	.48473	467.92	1.0012
Stddev	.00040	1.69	.00818	.00079	.00017	.00068	.06	.0049
%RSD	.18326	.33240	8.1481	10.936	.03300	.14014	.01309	.49380
#1	.21722	506.52	.09455	.00774	.50100	.48425	467.96	.99769
#2	.21779	508.90	.10611	.00663	.50077	.48521	467.88	1.0047

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2714	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0457	.48774	.47526	.53091	90.778	.18916	.55830	513.95
Stddev	.0079	.00041	.00068	.00013	.207	.02227	.00298	1.22
%RSD	17.19	.08337	.14329	.02410	.22779	11.772	.53371	.23673
#1	.0513	.48745	.47478	.53100	90.632	.17342	.55619	514.81
#2	.0401	.48803	.47574	.53082	90.924	.20491	.56041	513.09

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46750	.00115	.80624	.96245	.04967	1.034	.59560	.04966
Stddev	.00039	.00007	.00659	.00038	.00084	.011	.00151	.00277
%RSD	.08257	5.8261	.81774	.03934	1.6909	1.051	.25338	5.5854
#1	.46777	.00120	.80157	.96218	.04908	1.027	.59453	.05162
#2	.46722	.00110	.81090	.96272	.05027	1.042	.59667	.04770

Check ?	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ICSAB-4954073 Acquired: 11/1/2018 6:14:26 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94854	-.00371	.50857	.00061	.09879	.50451	.95925
Stddev	.02787	.00086	.00203	.00006	.00052	.00190	.00688
%RSD	2.9379	23.296	.39919	9.9386	.53121	.37733	.71719

#1	.92883	-.00432	.50713	.00066	.09842	.50586	.95438
#2	.96824	-.00310	.51000	.00057	.09916	.50317	.96411

Check ?	Chk Pass	None	None	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2169.8	3664.0	113160.	6956.3
Stddev	10.5	25.8	144.	2.5
%RSD	.48315	.70345	.12691	.03662

#1	2177.2	3682.2	113050.	6954.5
#2	2162.4	3645.8	113260.	6958.1

Sample Name: CCV-4954075 Acquired: 11/1/2018 6:18:24 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50717	24.200	.47974	.45922	.49969	.48181	24.853	.48750
Stddev	.00012	.074	.00031	.00308	.00164	.00183	.008	.00227
%RSD	.02342	.30637	.06374	.67042	.32803	.38069	.03390	.46497

#1	.50708	24.252	.47952	.46140	.49853	.48311	24.859	.48910
#2	.50725	24.147	.47995	.45704	.50085	.48051	24.847	.48589

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0127	.49401	.51694	.49238	24.164	25.385	.49081	24.623
Stddev	.0316	.00174	.00108	.00081	.076	.077	.00121	.022
%RSD	248.8	.35255	.20883	.16354	.31471	.30510	.24599	.08940

#1	-.0350	.49524	.51770	.49295	24.218	25.439	.49166	24.638
#2	.0096	.49278	.51617	.49181	24.111	25.330	.48995	24.607

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51939	.49189	25.630	.49988	.49225	24.21	.48093	.48074
Stddev	.00061	.00242	.136	.00240	.00134	.08	.00056	.00103
%RSD	.11689	.49112	.52913	.48102	.27246	.3253	.11642	.21433

#1	.51982	.49360	25.726	.50158	.49130	24.27	.48133	.48146
#2	.51896	.49018	25.534	.49818	.49320	24.16	.48054	.48001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: CCV-4954075 Acquired: 11/1/2018 6:18:24 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.099	.50796	.52240	.49520	.48578	.51460	.50947
Stddev	.036	.00044	.00198	.00037	.00365	.00025	.00304
%RSD	.15064	.08746	.37866	.07516	.75131	.04946	.59759

#1	24.074	.50827	.52380	.49494	.48837	.51442	.51162
#2	24.125	.50764	.52101	.49546	.48320	.51478	.50731

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2616.7	4050.3	125630.	7200.8
Stddev	9.8	17.8	49.	26.1
%RSD	.37319	.44019	.03909	.36221

#1	2609.8	4037.7	125660.	7182.3
#2	2623.6	4062.9	125590.	7219.2

Sample Name: CCB-4957862 Acquired: 11/1/2018 6:22:09 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2	Be3130	Ca3179	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.00825	.00058	.00191	.00001	-.00015	.01787	.00008
Stddev	.00017	.01286	.00078	.00003	.00001	.00010	.00084	.00002
%RSD	38.303	155.79	133.63	1.7369	205.36	66.359	4.6837	30.151

#1	-.00057	.01734	.00003	.00188	.00001	-.00022	.01727	.00010
#2	-.00033	-.00084	.00113	.00193	-.00000	-.00008	.01846	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	**Ce4040	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0033	.00021	.00010	-.00018	.00514	.02660	.00067	.00766
Stddev	.0097	.00009	.00014	.00013	.00206	.00046	.00045	.00337
%RSD	292.3	44.321	146.55	71.606	40.056	1.7165	67.881	43.994

#1	-.0102	.00027	-.00000	-.00026	.00369	.02627	.00035	.00528
#2	.0035	.00014	.00020	-.00009	.00660	.02692	.00099	.01005

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00036	.25046	-.00001	-.00037	.0209	-.00064	.00275
Stddev	.00003	.00012	.00522	.00013	.00083	.0000	.00051	.00097
%RSD	8.0572	31.887	2.0831	1367.8	224.30	.0623	80.117	35.376

#1	.00035	.00045	.25415	.00008	.00022	.0209	-.00100	.00206
#2	.00031	.00028	.24677	-.00010	-.00096	.0209	-.00028	.00344

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB-4957862 Acquired: 11/1/2018 6:22:09 Type: QC
Method: oct2018updatediecs(v30) Mode: CONC Corr. Factor: 1.000000
User: LMH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01915	-.00056	.00003	-.00018	.00050	.00008	.00052
Stddev	.00730	.00069	.00004	.00012	.00034	.00017	.00038
%RSD	38.134	123.77	158.72	68.839	67.197	224.44	72.424

#1	-.02432	-.00007	-.00000	-.00027	.00074	.00020	.00079
#2	-.01399	-.00104	.00005	-.00009	.00026	-.00004	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2794.3	4201.2	128960.	7216.2
Stddev	5.5	13.2	141.	20.6
%RSD	.19766	.31378	.10956	.28596

#1	2790.4	4191.9	129060.	7230.8
#2	2798.3	4210.5	128860.	7201.6

Run File: I2110218A

Instrument: ICAP2

Analyst: JAK

Data Review: 11/03/18

Spikes Ids: 4921304(W1), 4921302 (W2), 4899315(Sn), 4899367(Ag), 4844446(Si),
4370411(TCLP), 4844449(S)

Pipette IDs: 12/26/18-(1-11)

Internal Standard: 4927696

Seq#	Run File ID	Sample ID	Date / Time	Type
1	I2110218A	icis-4975309	11/2/2018 9:30:47AM	Standard
2	I2110218A	ic-4970377	11/2/2018 9:34:30AM	Standard
3	I2110218A	IC-4927698	11/2/2018 9:38:12AM	Standard
4	I2110218A	IC-4927697	11/2/2018 9:41:38AM	Standard
5	I2110218A	icv-4954074	11/2/2018 9:45:08AM	QC
6	I2110218A	icb-4975309	11/2/2018 9:48:37AM	QC
7	I2110218A	icvl-4970377	11/2/2018 9:52:19AM	QC
8	I2110218A	ICSA-4901305	11/2/2018 9:56:02AM	QC
9	I2110218A	ICSAB-4954073	11/2/2018 9:59:45AM	QC
10	I2110218A	ICEX1	11/2/2018 10:03:21AM	Unknown
11	I2110218A	ICEX2	11/2/2018 10:07:06AM	Unknown
12	I2110218A	ICEX3	11/2/2018 10:10:46AM	Unknown
13	I2110218A	ICEX4	11/2/2018 10:14:33AM	Unknown
14	I2110218A	ICEX5	11/2/2018 10:18:13AM	Unknown
15	I2110218A	ccv-4973140	11/2/2018 10:21:55AM	QC
16	I2110218A	ccb-4975309	11/2/2018 10:25:22AM	QC
17	I2110218A	ccvl-4970377	11/2/2018 10:35:39AM	QC
18	I2110218A	mb 480-441218/1-a	11/2/2018 10:39:21AM	Unknown
19	I2110218A	lcs 480-441218/2-a	11/2/2018 10:43:03AM	Unknown
20	I2110218A	480-143635-d-1-b	11/2/2018 10:46:35AM	Unknown
21	I2110218A	480-143635-d-2-b	11/2/2018 10:50:14AM	Unknown
22	I2110218A	480-143635-d-3-b	11/2/2018 10:53:54AM	Unknown
23	I2110218A	480-143841-a-5-a	11/2/2018 10:57:33AM	Unknown
24	I2110218A	480-143841-a-6-a	11/2/2018 11:01:12AM	Unknown
25	I2110218A	480-143841-a-6-a@5	11/2/2018 11:05:00AM	Unknown
26	I2110218A	480-143841-a-7-a	11/2/2018 11:08:38AM	Unknown
27	I2110218A	ccv-4973140	11/2/2018 11:12:19AM	QC
28	I2110218A	ccb-4975309	11/2/2018 11:15:46AM	QC
29	I2110218A	ccvl-4970377	11/2/2018 11:19:30AM	QC
30	I2110218A	480-143841-a-8-a	11/2/2018 11:23:12AM	Unknown
31	I2110218A	480-143841-a-9-a	11/2/2018 11:26:55AM	Unknown
32	I2110218A	480-143841-a-11-a	11/2/2018 11:30:37AM	Unknown
33	I2110218A	480-143899-c-1-a	11/2/2018 11:34:17AM	Unknown
34	I2110218A	480-143899-c-1-aSD@5	11/2/2018 11:37:57AM	Unknown
35	I2110218A	480-143899-c-1-aPDS	11/2/2018 11:41:39AM	Unknown
36	I2110218A	480-143899-c-1-b ms	11/2/2018 11:45:09AM	Unknown
37	I2110218A	480-143899-c-1-c msd	11/2/2018 11:48:41AM	Unknown
38	I2110218A	480-143899-c-2-a	11/2/2018 11:52:12AM	Unknown
39	I2110218A	ccv-4973140	11/2/2018 11:55:54AM	QC
40	I2110218A	ccb-4975309	11/2/2018 11:59:20AM	QC
41	I2110218A	ccvl-4970377	11/2/2018 12:03:04PM	QC
42	I2110218A	480-143899-c-3-a	11/2/2018 12:06:46PM	Unknown

43	I2110218A	480-143899-c-4-a	11/2/2018	12:10:26PM	Unknown
44	I2110218A	480-143899-c-5-a	11/2/2018	12:14:05PM	Unknown
45	I2110218A	lcsd 480-441218/24-a	11/2/2018	12:17:45PM	Unknown
46	I2110218A	mb 480-441229/1-a	11/2/2018	12:21:17PM	Unknown
47	I2110218A	lcs 480-441229/2-a	11/2/2018	12:24:59PM	Unknown
48	I2110218A	480-143841-b-7-b	11/2/2018	12:28:30PM	Unknown
49	I2110218A	480-143841-b-8-b	11/2/2018	12:32:10PM	Unknown
50	I2110218A	480-143841-b-9-b	11/2/2018	12:35:54PM	Unknown
51	I2110218A	ccv-4973140	11/2/2018	12:39:39PM	QC
52	I2110218A	ccb-4975309	11/2/2018	12:43:07PM	QC
53	I2110218A	ccvl-4970377	11/2/2018	12:46:50PM	QC
54	I2110218A	480-143841-b-10-a	11/2/2018	12:50:32PM	Unknown
55	I2110218A	143841-b-10-aSD@5	11/2/2018	12:54:12PM	Unknown
56	I2110218A	480-143841-b-10-aPDS	11/2/2018	12:57:53PM	Unknown
57	I2110218A	480-143841-b-10-b ms	11/2/2018	1:01:24PM	Unknown
58	I2110218A	143841-b-10-c msD	11/2/2018	1:04:55PM	Unknown
59	I2110218A	480-143841-b-11-b	11/2/2018	1:08:25PM	Unknown
60	I2110218A	480-143841-b-12-b	11/2/2018	1:12:06PM	Unknown
61	I2110218A	lcsd 480-441229/25-a	11/2/2018	1:15:44PM	Unknown
62	I2110218A	480-143841-a-9-a@5	11/2/2018	1:19:15PM	Unknown
63	I2110218A	ccv-4973140	11/2/2018	1:23:00PM	QC
64	I2110218A	ccb-4975309	11/2/2018	1:26:30PM	QC
65	I2110218A	ccvl-4970377	11/2/2018	1:30:13PM	QC
66	I2110218A	mb 480-441907/1-a	11/2/2018	1:33:56PM	Unknown
67	I2110218A	lcs 480-441907/2-a	11/2/2018	1:37:38PM	Unknown
68	I2110218A	480-143884-b-1-a	11/2/2018	1:41:10PM	Unknown
69	I2110218A	480-143884-b-1-b ms	11/2/2018	1:44:50PM	Unknown
70	I2110218A	480-143884-b-1-c msd	11/2/2018	1:48:22PM	Unknown
71	I2110218A	480-143884-b-2-a	11/2/2018	1:51:53PM	Unknown
72	I2110218A	480-143884-b-2-aSD@5	11/2/2018	1:55:32PM	Unknown
73	I2110218A	480-143884-b-2-aPDS	11/2/2018	1:59:14PM	Unknown
74	I2110218A	480-143884-b-3-a	11/2/2018	2:02:44PM	Unknown
75	I2110218A	ccv-4973140	11/2/2018	2:06:26PM	QC
76	I2110218A	ccb-4975309	11/2/2018	2:09:53PM	QC
77	I2110218A	ccvl-4970377	11/2/2018	2:13:37PM	QC
78	I2110218A	480-143884-b-4-a	11/2/2018	2:17:19PM	Unknown
79	I2110218A	480-143884-b-5-a	11/2/2018	2:20:57PM	Unknown
80	I2110218A	480-143884-b-6-a	11/2/2018	2:24:37PM	Unknown
81	I2110218A	480-143696-y-1-a	11/2/2018	2:28:19PM	Unknown
82	I2110218A	mb 480-441741/1-a	11/2/2018	2:32:03PM	Unknown
83	I2110218A	lcs 480-441741/2-a	11/2/2018	2:35:45PM	Unknown
84	I2110218A	480-144318-a-1-a@5	11/2/2018	2:39:16PM	Unknown
85	I2110218A	143786-1 SOL	11/2/2018	2:42:55PM	Unknown
86	I2110218A	BLANKL	11/2/2018	2:46:34PM	Unknown
87	I2110218A	ccv-4973140	11/2/2018	2:50:19PM	QC
88	I2110218A	ccb-4975309	11/2/2018	2:53:45PM	QC
89	I2110218A	ccvl-4970377	11/2/2018	2:57:30PM	QC
90	I2110218A	lb 480-442360/1-b	11/2/2018	3:01:12PM	Unknown
91	I2110218A	mb 480-442501/2-a	11/2/2018	3:04:54PM	Unknown
92	I2110218A	lcs 480-442501/3-a	11/2/2018	3:08:36PM	Unknown
93	I2110218A	480-144275-e-2-d	11/2/2018	3:12:11PM	Unknown
94	I2110218A	480-144275-c-3-c	11/2/2018	3:15:55PM	Unknown

95	I2110218A	480-144275-c-3-cSD@5	11/2/2018	3:19:55PM	Unknown
96	I2110218A	480-144275-c-3-cPDS	11/2/2018	3:23:35PM	Unknown
97	I2110218A	480-144275-c-3-d ms	11/2/2018	3:27:24PM	Unknown
98	I2110218A	480-144275-c-3-e msd	11/2/2018	3:31:13PM	Unknown
99	I2110218A	ccv-4973140	11/2/2018	3:35:05PM	QC
100	I2110218A	ccb-4975309	11/2/2018	3:38:32PM	QC
101	I2110218A	ccvl-4970377	11/2/2018	3:45:28PM	QC
102	I2110218A	mb 480-441501/1-a	11/2/2018	3:49:09PM	Unknown
103	I2110218A	lcs 480-441501/2-a	11/2/2018	3:52:51PM	Unknown
104	I2110218A	480-143988-a-2-a	11/2/2018	3:56:23PM	Unknown
105	I2110218A	480-143988-a-2-aSD@5	11/2/2018	4:00:04PM	Unknown
106	I2110218A	480-143988-a-2-aPDS	11/2/2018	4:03:46PM	Unknown
107	I2110218A	480-143988-a-2-b ms	11/2/2018	4:07:17PM	Unknown
108	I2110218A	480-143988-a-2-c msd	11/2/2018	4:10:48PM	Unknown
109	I2110218A	480-143988-a-3-a	11/2/2018	4:14:20PM	Unknown
110	I2110218A	480-143988-b-4-a	11/2/2018	4:17:59PM	Unknown
111	I2110218A	ccv-4973140	11/2/2018	4:21:40PM	QC
112	I2110218A	ccb-4975309	11/2/2018	4:25:06PM	QC
113	I2110218A	ccvl-4970377	11/2/2018	4:28:50PM	QC
114	I2110218A	480-143988-a-6-a	11/2/2018	4:32:32PM	Unknown
115	I2110218A	480-143988-a-7-a	11/2/2018	4:36:11PM	Unknown
116	I2110218A	480-143988-a-8-a	11/2/2018	4:39:52PM	Unknown
117	I2110218A	480-143988-a-9-a	11/2/2018	4:43:33PM	Unknown
118	I2110218A	480-143585-d-2-c	11/2/2018	4:47:13PM	Unknown
119	I2110218A	480-143585-d-3-c	11/2/2018	4:50:55PM	Unknown
120	I2110218A	480-143585-d-4-c	11/2/2018	4:54:33PM	Unknown
121	I2110218A	480-143585-d-5-c	11/2/2018	4:58:12PM	Unknown
122	I2110218A	480-143585-d-6-c	11/2/2018	5:01:52PM	Unknown
123	I2110218A	ccv-4973140	11/2/2018	5:05:34PM	QC
124	I2110218A	ccb-4975309	11/2/2018	5:09:00PM	QC
125	I2110218A	ccvl-4970377	11/2/2018	5:12:44PM	QC
126	I2110218A	480-143585-d-7-c	11/2/2018	5:16:26PM	Unknown
127	I2110218A	480-143585-d-8-c	11/2/2018	5:20:06PM	Unknown
128	I2110218A	480-143585-d-9-c	11/2/2018	5:23:45PM	Unknown
129	I2110218A	480-143585-d-10-c	11/2/2018	5:27:25PM	Unknown
130	I2110218A	480-143585-d-11-c	11/2/2018	5:31:05PM	Unknown
131	I2110218A	480-143585-d-12-c	11/2/2018	5:34:50PM	Unknown
132	I2110218A	480-143547-a-1-d	11/2/2018	5:38:34PM	Unknown
133	I2110218A	480-143547-a-2-b	11/2/2018	5:42:13PM	Unknown
134	I2110218A	lcsd 480-441501/25-a	11/2/2018	5:45:58PM	Unknown
135	I2110218A	ccv-4973140	11/2/2018	5:49:30PM	QC
136	I2110218A	ccb-4975309	11/2/2018	5:52:56PM	QC
137	I2110218A	ccvl-4970377	11/2/2018	5:56:39PM	QC
138	I2110218A	mb 480-442865/1-a	11/2/2018	6:00:21PM	Unknown
139	I2110218A	lcs 480-442865/2-a	11/2/2018	6:04:03PM	Unknown
140	I2110218A	480-144352-d-1-a	11/2/2018	6:07:34PM	Unknown
141	I2110218A	480-144352-d-1-aSD@5	11/2/2018	6:11:11PM	Unknown
142	I2110218A	480-144352-d-1-aPDS	11/2/2018	6:14:50PM	Unknown
143	I2110218A	480-144352-d-1-b ms	11/2/2018	6:18:20PM	Unknown
144	I2110218A	480-144352-d-1-c msd	11/2/2018	6:21:50PM	Unknown
145	I2110218A	480-144352-d-2-a	11/2/2018	6:25:20PM	Unknown
146	I2110218A	480-144352-d-3-a	11/2/2018	6:28:59PM	Unknown

147	I2110218A	ccv-4973140	11/2/2018	6:32:39PM	QC
148	I2110218A	ccb-4975309	11/2/2018	6:36:07PM	QC
149	I2110218A	ccvl-4970377	11/2/2018	6:39:50PM	QC
150	I2110218A	480-144352-d-4-a	11/2/2018	6:43:32PM	Unknown
151	I2110218A	480-144352-d-5-a	11/2/2018	6:47:11PM	Unknown
152	I2110218A	480-144352-d-6-a	11/2/2018	6:50:51PM	Unknown
153	I2110218A	480-144369-b-1-c	11/2/2018	6:54:28PM	Unknown
154	I2110218A	480-144369-b-2-c	11/2/2018	6:58:06PM	Unknown
155	I2110218A	480-143690-b-1-b	11/2/2018	7:01:43PM	Unknown
156	I2110218A	480-143690-b-2-b	11/2/2018	7:05:23PM	Unknown
157	I2110218A	480-143690-b-3-b	11/2/2018	7:09:07PM	Unknown
158	I2110218A	480-143691-a-1-a	11/2/2018	7:12:46PM	Unknown
159	I2110218A	ccv-4973140	11/2/2018	7:16:26PM	QC
160	I2110218A	ccb-4975309	11/2/2018	7:19:53PM	QC
161	I2110218A	ccvl-4970377	11/2/2018	7:23:37PM	QC
162	I2110218A	480-143691-a-2-a	11/2/2018	7:27:19PM	Unknown
163	I2110218A	480-143691-a-3-a	11/2/2018	7:30:57PM	Unknown
164	I2110218A	480-144015-a-1-a	11/2/2018	7:34:36PM	Unknown
165	I2110218A	480-144015-a-2-a	11/2/2018	7:38:16PM	Unknown
166	I2110218A	480-144015-a-3-a	11/2/2018	7:41:55PM	Unknown
167	I2110218A	480-144015-a-4-a	11/2/2018	7:45:34PM	Unknown
168	I2110218A	480-144060-c-1-a	11/2/2018	7:49:19PM	Unknown
169	I2110218A	480-144060-c-2-a	11/2/2018	7:52:58PM	Unknown
170	I2110218A	mb 480-442164/1-a	11/2/2018	7:56:35PM	Unknown
171	I2110218A	ccv-4973140	11/2/2018	8:00:20PM	QC
172	I2110218A	ccb-4975309	11/2/2018	8:03:47PM	QC
173	I2110218A	ccvl-4970377	11/2/2018	8:07:33PM	QC
174	I2110218A	lcs 480-442164/2-a	11/2/2018	8:11:15PM	Unknown
175	I2110218A	480-144121-c-1-b	11/2/2018	8:14:46PM	Unknown
176	I2110218A	480-144121-c-2-b	11/2/2018	8:18:25PM	Unknown
177	I2110218A	480-144121-c-2-bSD@5	11/2/2018	8:22:03PM	Unknown
178	I2110218A	480-144121-c-2-bPDS	11/2/2018	8:25:43PM	Unknown
179	I2110218A	480-144121-c-2-c ms	11/2/2018	8:29:13PM	Unknown
180	I2110218A	480-144121-c-2-d msd	11/2/2018	8:32:43PM	Unknown
181	I2110218A	480-144121-c-3-b	11/2/2018	8:36:13PM	Unknown
182	I2110218A	480-144121-c-4-b	11/2/2018	8:39:53PM	Unknown
183	I2110218A	ccv-4973140	11/2/2018	8:43:36PM	QC
184	I2110218A	ccb-4975309	11/2/2018	8:47:03PM	QC
185	I2110218A	ccvl-4970377	11/2/2018	8:50:47PM	QC
186	I2110218A	480-144121-c-5-b	11/2/2018	8:54:29PM	Unknown
187	I2110218A	480-144121-c-6-b	11/2/2018	8:58:11PM	Unknown
188	I2110218A	480-144121-c-7-b	11/2/2018	9:01:52PM	Unknown
189	I2110218A	480-144265-c-1-a	11/2/2018	9:05:30PM	Unknown
190	I2110218A	480-144265-c-2-a	11/2/2018	9:09:09PM	Unknown
191	I2110218A	480-144265-c-3-a	11/2/2018	9:12:48PM	Unknown
192	I2110218A	480-144265-c-4-a	11/2/2018	9:16:26PM	Unknown
193	I2110218A	480-144265-c-5-a	11/2/2018	9:20:06PM	Unknown
194	I2110218A	480-144265-c-6-a	11/2/2018	9:23:46PM	Unknown
195	I2110218A	ccv-4973140	11/2/2018	9:27:28PM	QC
196	I2110218A	ccb-4975309	11/2/2018	9:30:55PM	QC
197	I2110218A	ccvl-4970377	11/2/2018	9:34:40PM	QC
198	I2110218A	480-143880-b-15-b	11/2/2018	9:38:22PM	Unknown

199	I2110218A	480-143880-b-16-b	11/2/2018	9:42:01PM	Unknown
200	I2110218A	480-143880-c-17-b	11/2/2018	9:45:40PM	Unknown
201	I2110218A	480-143882-b-1-a	11/2/2018	9:49:19PM	Unknown
202	I2110218A	480-143882-c-2-a	11/2/2018	9:52:58PM	Unknown
203	I2110218A	480-143890-d-1-a	11/2/2018	9:56:36PM	Unknown
204	I2110218A	480-143890-d-2-a	11/2/2018	10:00:16PM	Unknown
205	I2110218A	mb 480-441762/1-a	11/2/2018	10:03:56PM	Unknown
206	I2110218A	lcs 480-441762/2-a	11/2/2018	10:07:38PM	Unknown
207	I2110218A	ccv-4973140	11/2/2018	10:11:11PM	QC
208	I2110218A	ccb-4975309	11/2/2018	10:14:37PM	QC
209	I2110218A	ccvl-4970377	11/2/2018	10:18:21PM	QC
210	I2110218A	480-143503-b-1-a	11/2/2018	10:22:02PM	Unknown
211	I2110218A	480-143503-b-2-a	11/2/2018	10:25:39PM	Unknown
212	I2110218A	480-143503-b-3-a	11/2/2018	10:29:17PM	Unknown
213	I2110218A	480-143503-b-4-a	11/2/2018	10:33:01PM	Unknown
214	I2110218A	480-143478-d-1-a	11/2/2018	10:36:39PM	Unknown
215	I2110218A	480-143478-d-1-aSD@5	11/2/2018	10:40:18PM	Unknown
216	I2110218A	480-143478-d-1-aPDS	11/2/2018	10:43:58PM	Unknown
217	I2110218A	480-143478-d-1-b ms	11/2/2018	10:47:29PM	Unknown
218	I2110218A	480-143478-d-1-c msd	11/2/2018	10:51:00PM	Unknown
219	I2110218A	ccv-4973140	11/2/2018	10:54:33PM	QC
220	I2110218A	ccb-4975309	11/2/2018	10:57:59PM	QC
221	I2110218A	ccvl-4970377	11/2/2018	11:01:43PM	QC
222	I2110218A	480-143478-c-2-a	11/2/2018	11:05:26PM	Unknown
223	I2110218A	480-143478-d-4-a	11/2/2018	11:09:04PM	Unknown
224	I2110218A	480-143497-e-1-b	11/2/2018	11:12:42PM	Unknown
225	I2110218A	480-143497-e-2-b	11/2/2018	11:16:21PM	Unknown
226	I2110218A	480-143497-e-3-b	11/2/2018	11:20:00PM	Unknown
227	I2110218A	480-143497-e-4-b	11/2/2018	11:23:38PM	Unknown
228	I2110218A	480-143556-f-1-b	11/2/2018	11:27:21PM	Unknown
229	I2110218A	480-143556-f-2-b	11/2/2018	11:31:00PM	Unknown
230	I2110218A	480-143659-e-1-d	11/2/2018	11:34:37PM	Unknown
231	I2110218A	ccv-4973140	11/2/2018	11:38:23PM	QC
232	I2110218A	ccb-4975309	11/2/2018	11:41:50PM	QC
233	I2110218A	ccvl-4970377	11/2/2018	11:45:32PM	QC
234	I2110218A	480-143659-a-2-b	11/2/2018	11:49:14PM	Unknown
235	I2110218A	480-143659-e-3-b	11/2/2018	11:52:56PM	Unknown
236	I2110218A	480-143659-e-4-b	11/2/2018	11:56:40PM	Unknown
237	I2110218A	480-143747-j-1-a	11/3/2018	12:00:25AM	Unknown
238	I2110218A	mb 480-440214/1-a	11/3/2018	12:04:03AM	Unknown
239	I2110218A	lcs 480-440214/2-a	11/3/2018	12:07:45AM	Unknown
240	I2110218A	480-143471-d-4-b	11/3/2018	12:11:17AM	Unknown
241	I2110218A	480-143471-d-4-bSD@5	11/3/2018	12:14:55AM	Unknown
242	I2110218A	480-143471-d-4-bPDS	11/3/2018	12:18:36AM	Unknown
243	I2110218A	ccv-4973140	11/3/2018	12:22:08AM	QC
244	I2110218A	ccb-4975309	11/3/2018	12:25:35AM	QC
245	I2110218A	ccvl-4970377	11/3/2018	12:29:19AM	QC
246	I2110218A	480-143471-d-4-c ms	11/3/2018	12:33:02AM	Unknown
247	I2110218A	480-143471-d-4-d msd	11/3/2018	12:36:32AM	Unknown
248	I2110218A	480-143469-g-1-b	11/3/2018	12:40:03AM	Unknown
249	I2110218A	480-143479-e-1-b	11/3/2018	12:43:41AM	Unknown
250	I2110218A	480-143479-e-2-b	11/3/2018	12:47:20AM	Unknown

251	I2110218A	480-143480-e-1-b	11/3/2018	12:50:58AM	Unknown
252	I2110218A	480-143480-e-2-b	11/3/2018	12:54:37AM	Unknown
253	I2110218A	480-143480-e-3-b	11/3/2018	12:58:16AM	Unknown
254	I2110218A	480-143480-e-4-b	11/3/2018	1:01:55AM	Unknown
255	I2110218A	ccv-4973140	11/3/2018	1:05:35AM	QC
256	I2110218A	ccb-4975309	11/3/2018	1:09:02AM	QC
257	I2110218A	ccvl-4970377	11/3/2018	1:12:46AM	QC
258	I2110218A	480-143481-e-1-b	11/3/2018	1:16:28AM	Unknown
259	I2110218A	480-143481-e-2-b	11/3/2018	1:20:07AM	Unknown
260	I2110218A	480-143481-e-3-b	11/3/2018	1:23:46AM	Unknown
261	I2110218A	480-143481-e-4-b	11/3/2018	1:27:25AM	Unknown
262	I2110218A	480-143481-e-5-b	11/3/2018	1:31:03AM	Unknown
263	I2110218A	480-143485-e-1-d	11/3/2018	1:34:41AM	Unknown
264	I2110218A	480-143485-e-2-b	11/3/2018	1:38:21AM	Unknown
265	I2110218A	480-143485-e-3-b	11/3/2018	1:41:59AM	Unknown
266	I2110218A	480-143485-e-4-b	11/3/2018	1:45:38AM	Unknown
267	I2110218A	ccv-4973140	11/3/2018	1:49:18AM	QC
268	I2110218A	ccb-4975309	11/3/2018	1:52:44AM	QC
269	I2110218A	ccvl-4970377	11/3/2018	1:56:28AM	QC
270	I2110218A	480-143485-c-6-b	11/3/2018	2:00:09AM	Unknown
271	I2110218A	480-143545-b-1-a	11/3/2018	2:03:49AM	Unknown
272	I2110218A	mb 480-441219/1-a	11/3/2018	2:07:28AM	Unknown
273	I2110218A	lcs 480-441219/2-a	11/3/2018	2:11:11AM	Unknown
274	I2110218A	480-143913-c-2-a	11/3/2018	2:14:42AM	Unknown
275	I2110218A	480-143913-c-3-a	11/3/2018	2:18:20AM	Unknown
276	I2110218A	480-143913-c-4-a	11/3/2018	2:21:59AM	Unknown
277	I2110218A	480-143913-c-5-a	11/3/2018	2:25:37AM	Unknown
278	I2110218A	480-143913-c-6-a	11/3/2018	2:29:15AM	Unknown
279	I2110218A	ccv-4973140	11/3/2018	2:32:55AM	QC
280	I2110218A	ccb-4975309	11/3/2018	2:36:22AM	QC
281	I2110218A	ccvl-4970377	11/3/2018	2:40:05AM	QC
282	I2110218A	480-143913-c-7-a	11/3/2018	2:43:47AM	Unknown
283	I2110218A	480-143913-c-8-a	11/3/2018	2:47:25AM	Unknown
284	I2110218A	480-143913-c-9-a	11/3/2018	2:51:03AM	Unknown
285	I2110218A	480-143913-c-10-a	11/3/2018	2:54:42AM	Unknown
286	I2110218A	480-143913-c-11-a	11/3/2018	2:58:19AM	Unknown
287	I2110218A	480-143913-c-12-a	11/3/2018	3:01:58AM	Unknown
288	I2110218A	480-143913-c-13-a	11/3/2018	3:05:37AM	Unknown
289	I2110218A	480-143913-c-14-a	11/3/2018	3:09:20AM	Unknown
290	I2110218A	143913-c-14-aSD@5	11/3/2018	3:12:59AM	Unknown
291	I2110218A	ccv-4973140	11/3/2018	3:16:40AM	QC
292	I2110218A	ccb-4975309	11/3/2018	3:20:06AM	QC
293	I2110218A	ccvl-4970377	11/3/2018	3:23:48AM	QC
294	I2110218A	480-143913-c-14-aPDS	11/3/2018	3:27:30AM	Unknown
295	I2110218A	480-143913-c-14-b ms	11/3/2018	3:31:01AM	Unknown
296	I2110218A	143913-c-14-c msD	11/3/2018	3:34:32AM	Unknown
297	I2110218A	480-143617-b-1-a@5	11/3/2018	3:38:03AM	Unknown
298	I2110218A	143658-3 TOT	11/3/2018	3:41:46AM	Unknown
299	I2110218A	143813-5 TOT	11/3/2018	3:45:26AM	Unknown
300	I2110218A	143814-4 TOT	11/3/2018	3:49:06AM	Unknown
301	I2110218A	143769-1 SOL	11/3/2018	3:52:47AM	Unknown
302	I2110218A	BLANK	11/3/2018	3:56:27AM	Unknown

303	I2110218A	ccv-4973140	11/3/2018	4:00:10AM	QC
304	I2110218A	ccb-4975309	11/3/2018	4:03:37AM	QC
305	I2110218A	ccvl-4970377	11/3/2018	4:07:21AM	QC
306	I2110218A	143278-3 TOT	11/3/2018	4:11:02AM	Unknown
307	I2110218A	143278-4 TOT	11/3/2018	4:14:39AM	Unknown
308	I2110218A	143278-7 TOT	11/3/2018	4:18:17AM	Unknown
309	I2110218A	143301-4 TOT	11/3/2018	4:21:56AM	Unknown
310	I2110218A	143301-6 TOT	11/3/2018	4:25:36AM	Unknown
311	I2110218A	143301-8 TOT	11/3/2018	4:29:10AM	Unknown
312	I2110218A	143301-9 TOT	11/3/2018	4:32:48AM	Unknown
313	I2110218A	BLANK	11/3/2018	4:36:32AM	Unknown
314	I2110218A	BLANK	11/3/2018	4:40:15AM	Unknown
315	I2110218A	ccv-4973140	11/3/2018	4:43:59AM	QC
316	I2110218A	ccb-4975309	11/3/2018	4:47:25AM	QC
317	I2110218A	ccvl-4970377	11/3/2018	4:51:10AM	QC
318	I2110218A	icsa-4901305	11/3/2018	4:54:52AM	QC
319	I2110218A	icsab-4954073	11/3/2018	4:58:34AM	QC
320	I2110218A	ccv-4973140	11/3/2018	5:02:11AM	QC
321	I2110218A	ccb-4975309	11/3/2018	5:05:39AM	QC

I2110218A

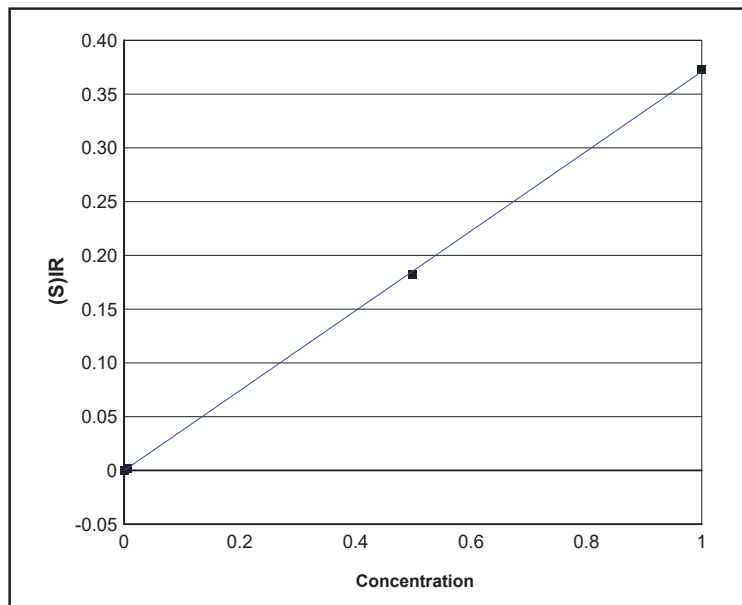
Author: JAK

Published: 11/3/2018 8:50:45AM

Instrument Name: 20094602a

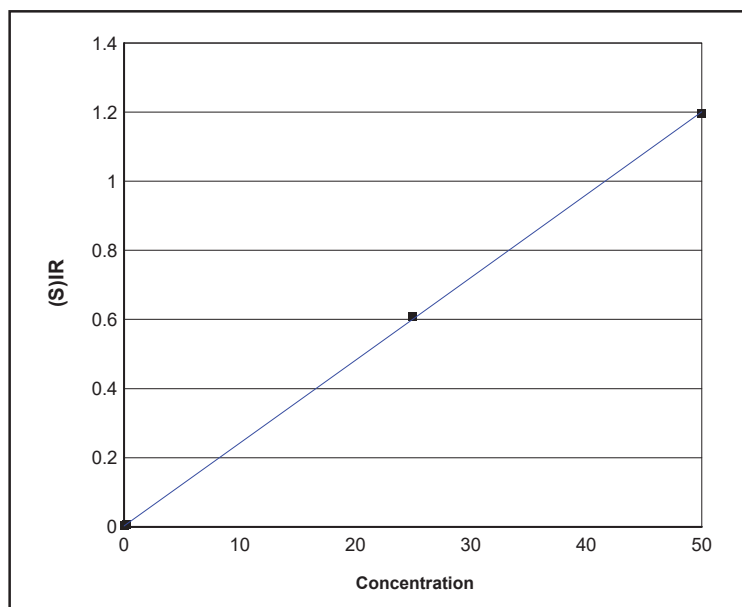
Serial Number: 20094602

Method Name: ICAP2 Oct2018 (25)



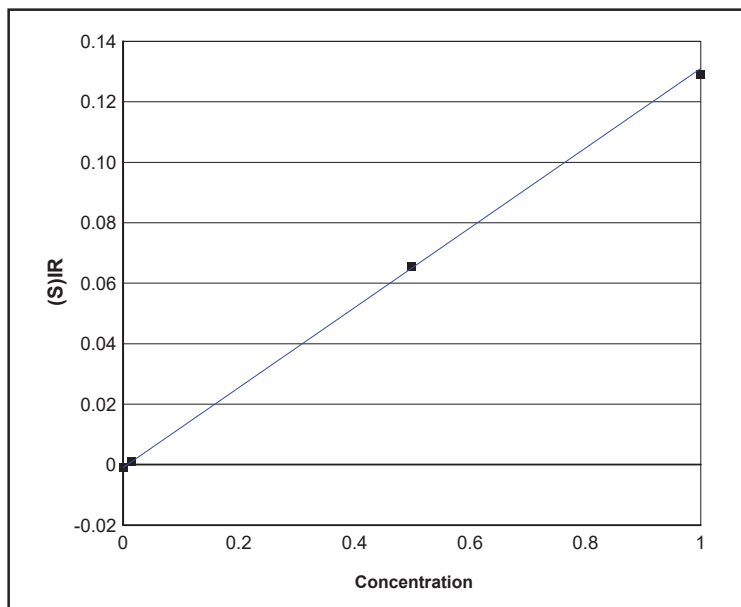
Element Name:		Ag	
Element Wavelength:		Ag 328.068 nm	
Concentration Units:		ppm	
Date of Calibration:		11/2/2018 9:45:04AM	
Date of Fit:		11/2/2018 10:31:18AM	
Type of Fit:		Linear	
Correlation:		0.99993	
A0 (Offset):		-0.00012064	
A1 (Gain):		0.37112	
A2 (Curvature):		0.00000	
n (Exponent):		1.0000	
Reslope		QC Normalize	
Slope:	1.0000	Slope factor:	1.0000
Y Int:	0.00000	Offset:	0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000006228	0.0000006228	0.00000	-0.00012041	0.00022371	1
ic-4970377	0.0060000	0.0054162	-0.00058381	-9.7302	0.0018889	0.000070483	1
IC-4927698	0.50000	0.49292	-0.0070780	-1.4156	0.18218	0.00095796	1
IC-4927697	1.0000	1.0077	0.0076637	0.76637	0.37257	0.00094605	1



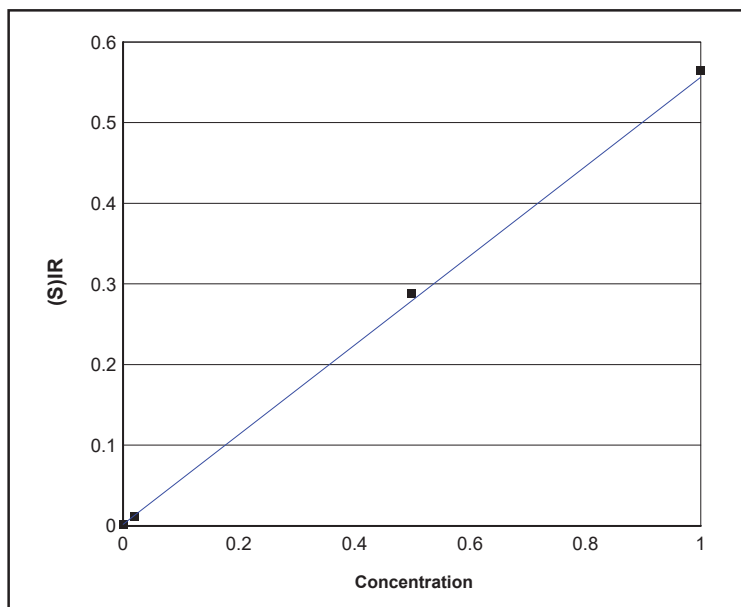
Element Name:		Al	
Element Wavelength:		Al 308.215 nm	
Concentration Units:		ppm	
Date of Calibration:		11/2/2018 9:45:04AM	
Date of Fit:		11/2/2018 10:31:18AM	
Type of Fit:		Linear	
Correlation:		0.99991	
A0 (Offset):		0.0025615	
A1 (Gain):		0.023961	
A2 (Curvature):		0.00000	
n (Exponent):		1.0000	
Reslope		QC Normalize	
Slope:	1.0000	Slope factor:	1.0000
Y Int:	0.00000	Offset:	0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.000043406	0.000043406	0.00000	0.0025625	0.00054966	1
ic-4970377	0.20000	0.15533	-0.044667	-22.333	0.0062834	0.00017071	1
IC-4927698	25.000	25.271	0.27051	1.0820	0.60806	0.0020820	1
IC-4927697	50.000	49.774	-0.22584	-0.45169	1.1952	0.0018073	1



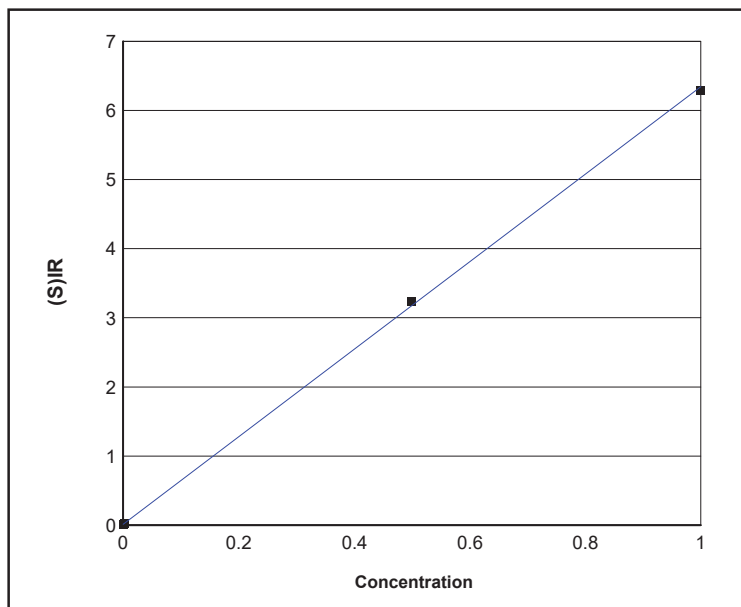
Element Name:		As
Element Wavelength:		As 189.042 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99993
A0 (Offset):		-0.00091747
A1 (Gain):		0.13201
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000008775	-0.0000008775	0.00000	-0.00091758	0.0000001654	1
ic-4970377	0.015000	0.015777	0.00077699	5.1799	0.0011622	0.00010381	1
IC-4927698	0.50000	0.50748	0.0074844	1.4969	0.065639	0.00013787	1
IC-4927697	1.0000	0.99173	-0.0082653	-0.82653	0.12913	0.00094987	1



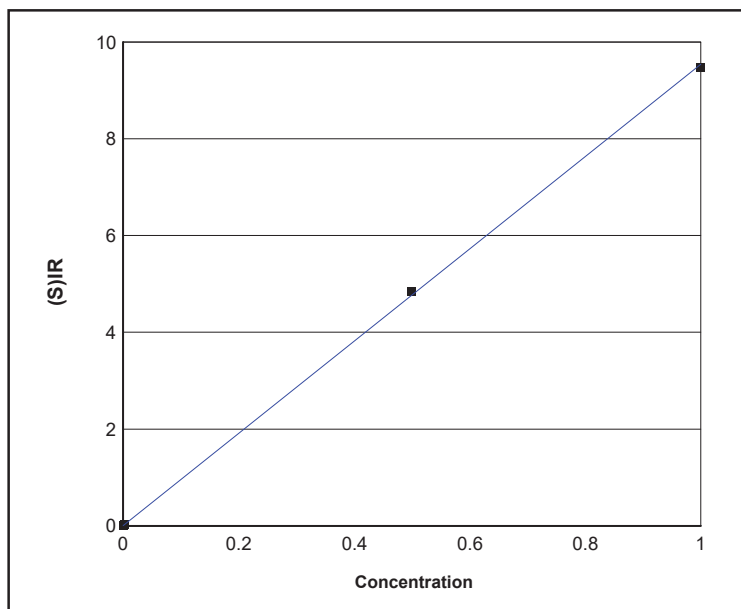
Element Name:		B
Element Wavelength:		B 208.959 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99993
A0 (Offset):		0.0018601
A1 (Gain):		0.55463
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000015234	0.0000015234	0.00000	0.0018609	0.000072932	1
ic-4970377	0.020000	0.018325	-0.0016748	-8.3741	0.012132	0.000058768	1
IC-4927698	0.50000	0.50591	0.0059147	1.1829	0.28788	0.00033952	1
IC-4927697	1.0000	0.99574	-0.0042559	-0.42559	0.56499	0.00010368	1



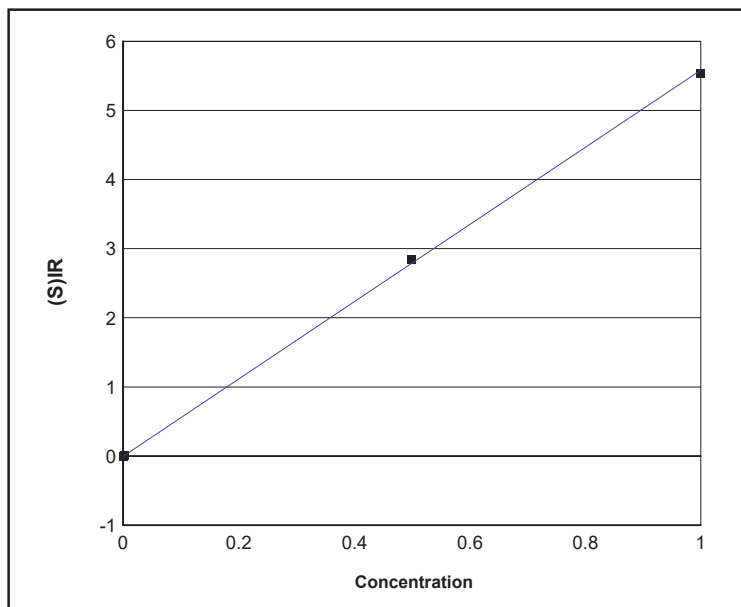
Element Name:		Ba
Element Wavelength:		Ba 455.403 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99993
A0 (Offset):		0.013074
A1 (Gain):		6.3301
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000001223	0.0000001223	0.00000	0.013075	0.00018436	1
ic-4970377	0.0020000	0.0018613	-0.00013866	-6.9330	0.024857	0.0011061	1
IC-4927698	0.50000	0.50804	0.0080353	1.6071	3.2290	0.0082345	1
IC-4927697	1.0000	0.99210	-0.0078966	-0.78966	6.2931	0.0092777	1



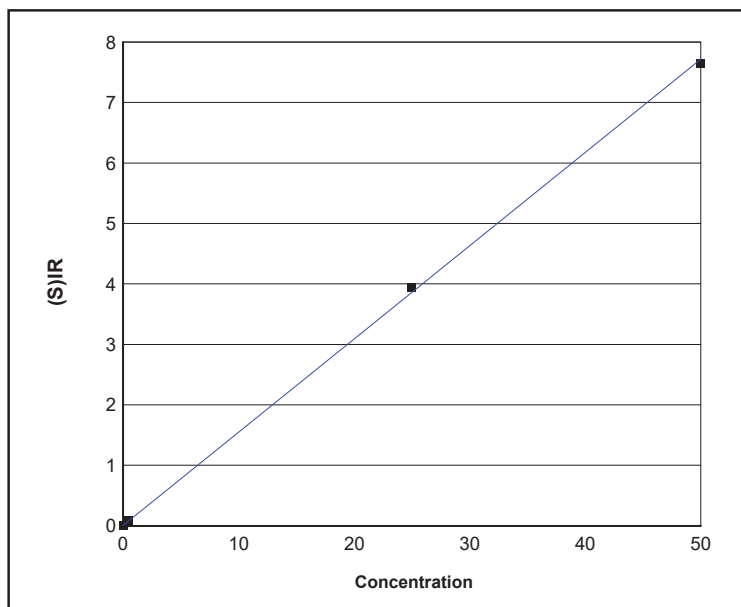
Element Name:		Ba
Element Wavelength:		Ba 455.403 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99995
A0 (Offset):		0.0047999
A1 (Gain):		9.5332
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000000053	0.0000000053	0.00000	0.0048000	0.00058974	1
ic-4970377	0.0020000	0.0019799	-0.000020107	-1.0053	0.023675	0.00054894	1
IC-4927698	0.50000	0.50740	0.0074034	1.4807	4.8420	0.0056487	1
IC-4927697	1.0000	0.99262	-0.0073833	-0.73833	9.4676	0.041566	1



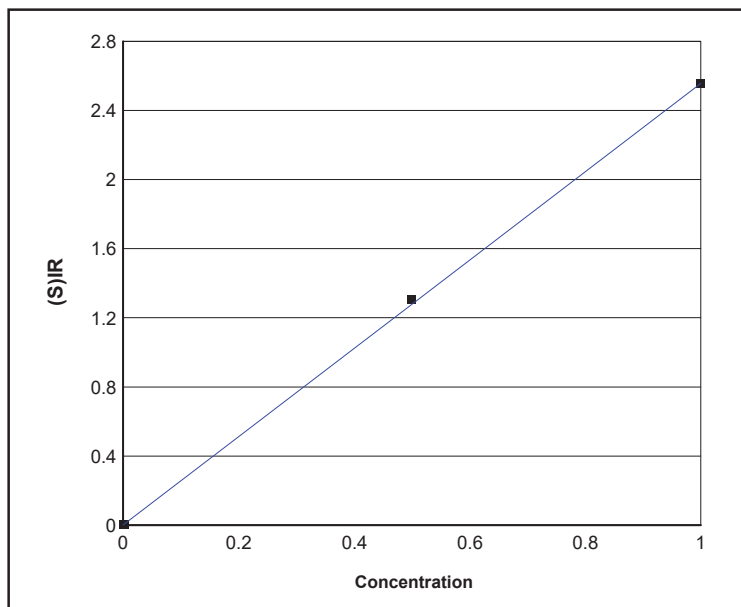
Element Name:		Be
Element Wavelength:		Be 313.042 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99990
A0 (Offset):		-0.0015359
A1 (Gain):		5.5861
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000000612	-0.0000000612	0.00000	-0.0015363	0.00051314	1
ic-4970377	0.0020000	0.0020410	0.000040974	2.0487	0.0098652	0.00065349	1
IC-4927698	0.50000	0.51015	0.010153	2.0307	2.8482	0.00075970	1
IC-4927697	1.0000	0.98981	-0.010194	-1.0194	5.5276	0.0040791	1



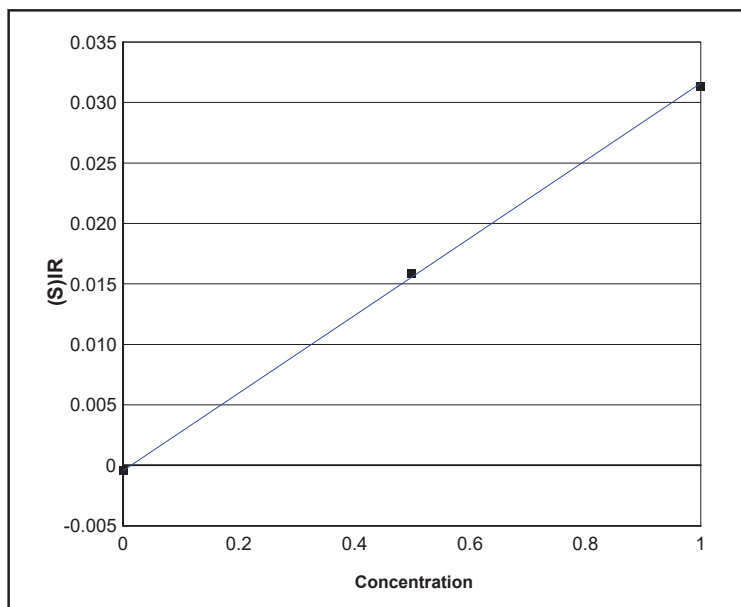
Element Name:		Ca
Element Wavelength:		Ca 317.933 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99991
A0 (Offset):		0.0060076
A1 (Gain):		0.15420
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	-0.000013370	-0.000013370	0.00000	0.0060056	0.00029559	1
ic-4970377	0.50000	0.50874	0.0087434	1.7487	0.084457	0.00070653	1
IC-4927698	25.000	25.471	0.47135	1.8854	3.9338	0.0077134	1
IC-4927697	50.000	49.520	-0.48010	-0.96019	7.6421	0.000033255	1



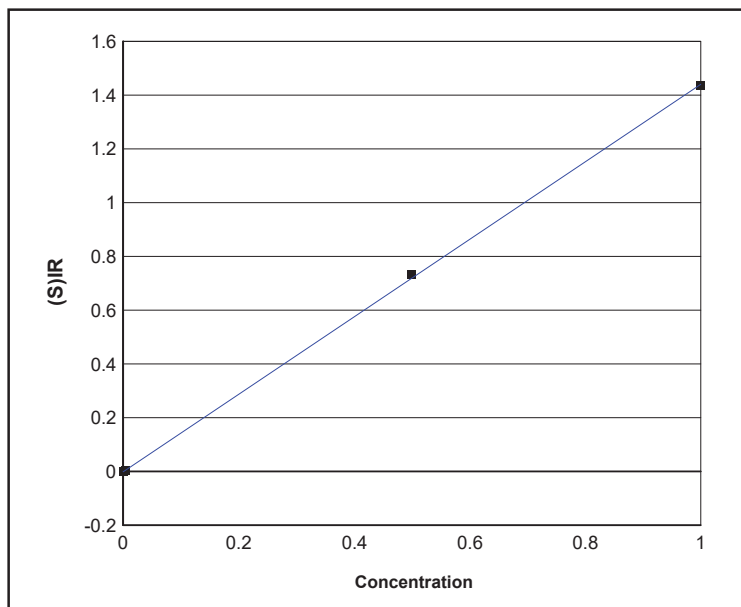
Element Name:	Cd
Element Wavelength:	Cd 228.802 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99994
A0 (Offset):	0.0014474
A1 (Gain):	2.5555
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000001001	0.0000001001	0.00000	0.0014476	0.000020207	1
ic-4970377	0.0020000	0.0018841	-0.00011589	-5.7944	0.0065352	0.00054751	1
IC-4927698	0.50000	0.50779	0.0077946	1.5589	1.3082	0.0011569	1
IC-4927697	1.0000	0.99233	-0.0076734	-0.76734	2.5555	0.0047211	1



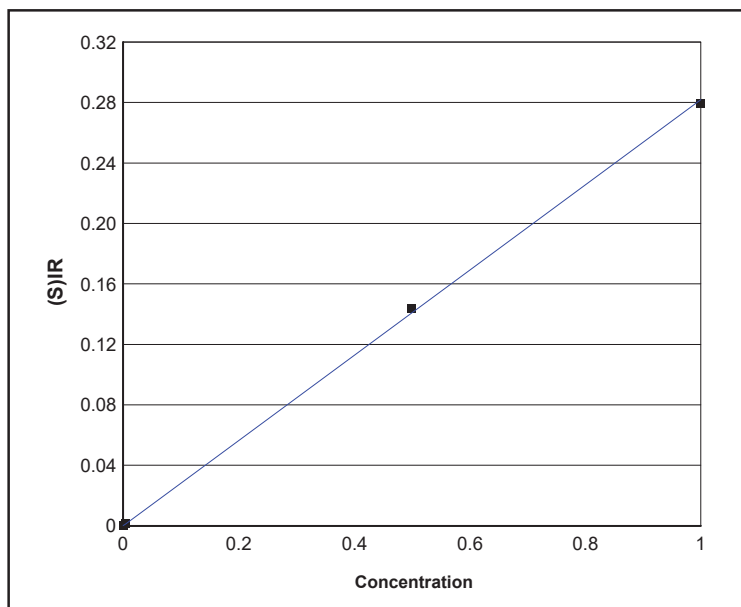
Element Name:	Ce
Element Wavelength:	Ce 404.076 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.9999
A0 (Offset):	-0.0004336
A1 (Gain):	0.03204
A2 (Curvature):	0.0000
n (Exponent):	1.000
Reslope	QC Normalize
Slope: 1.000	Slope factor: 1.000
Y Int: 0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.0000	-0.000004610	-0.000004610	0.0000	-0.0004337	0.0001112	1
IC-4927698	0.5000	0.5092	0.009219	1.844	0.01588	0.0002019	1
IC-4927697	1.000	0.9908	-0.009219	-0.9219	0.03131	0.001069	1



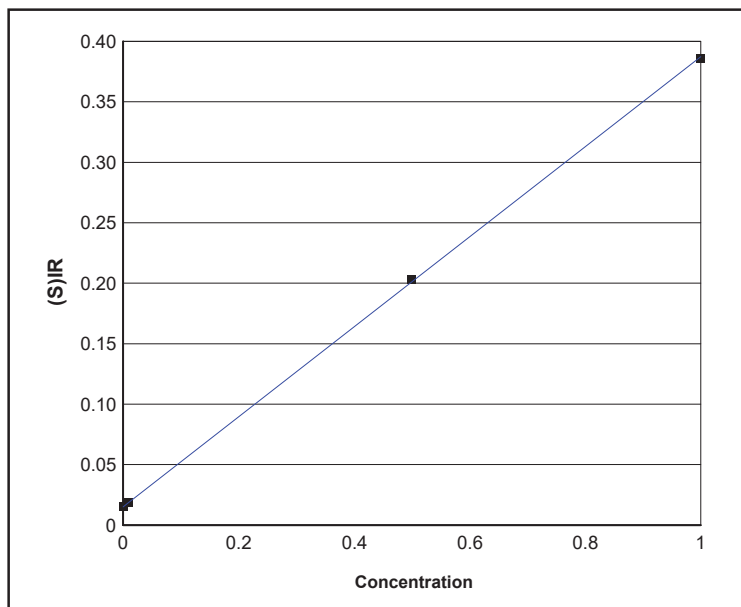
Element Name:		Co
Element Wavelength:		Co 228.616 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99995
A0 (Offset):		-0.0011157
A1 (Gain):		1.4416
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000001941	-0.0000001941	0.00000	-0.0011160	0.000017682	1
ic-4970377	0.0040000	0.0041673	0.00016734	4.1835	0.0049178	0.00013232	1
IC-4927698	0.50000	0.50685	0.0068480	1.3696	0.73147	0.00057587	1
IC-4927697	1.0000	0.99298	-0.0070157	-0.70157	1.4342	0.00028403	1



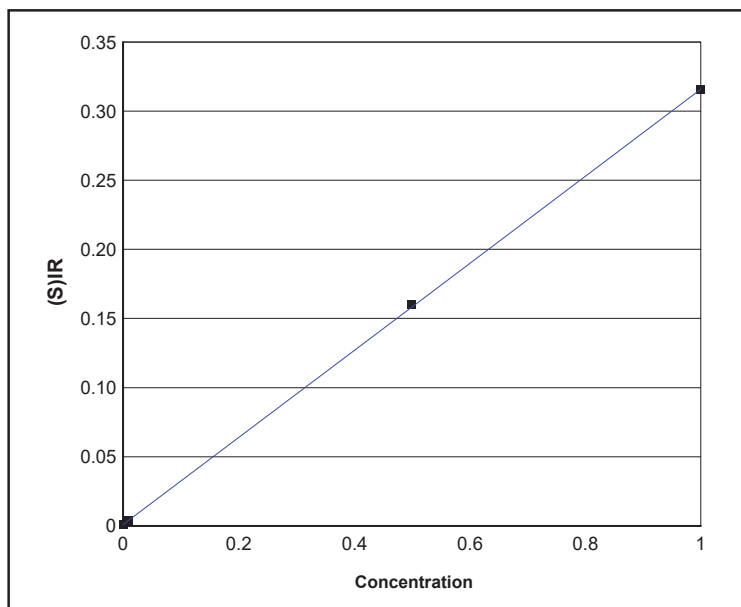
Element Name:		Cr
Element Wavelength:		Cr 267.716 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99992
A0 (Offset):		0.000086287
A1 (Gain):		0.28171
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000000931	-0.0000000931	0.00000	0.000086260	0.000013347	1
ic-4970377	0.0040000	0.0040577	0.000057655	1.4414	0.0012293	0.00010937	1
IC-4927698	0.50000	0.50891	0.0089135	1.7827	0.14340	0.00022569	1
IC-4927697	1.0000	0.99103	-0.0089712	-0.89712	0.27916	0.00068369	1



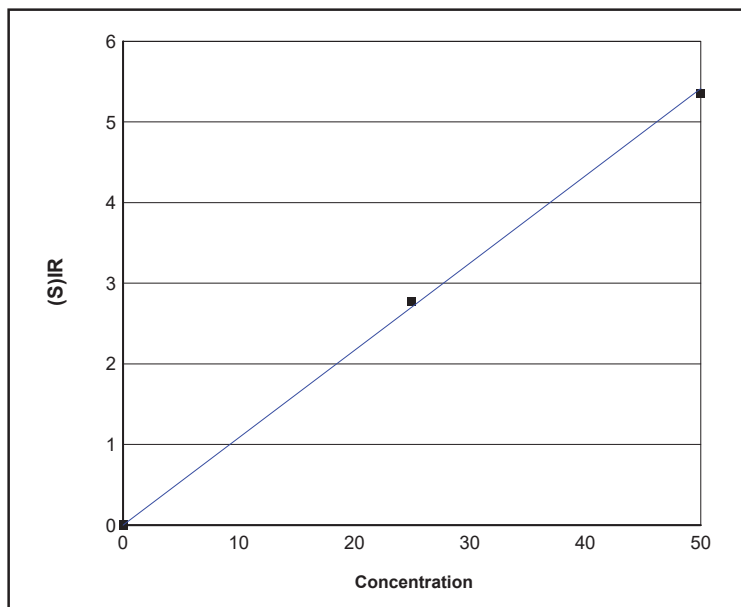
Element Name:	Cu
Element Wavelength:	Cu 324.754 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99993
A0 (Offset):	0.015135
A1 (Gain):	0.37221
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000012086	0.0000012086	0.00000	0.015135	0.000086064	1
ic-4970377	0.010000	0.0087312	-0.0012688	-12.688	0.018385	0.000047487	1
IC-4927698	0.50000	0.50475	0.0047519	0.95039	0.20301	0.00066725	1
IC-4927697	1.0000	0.99652	-0.0034832	-0.34832	0.38605	0.00026861	1



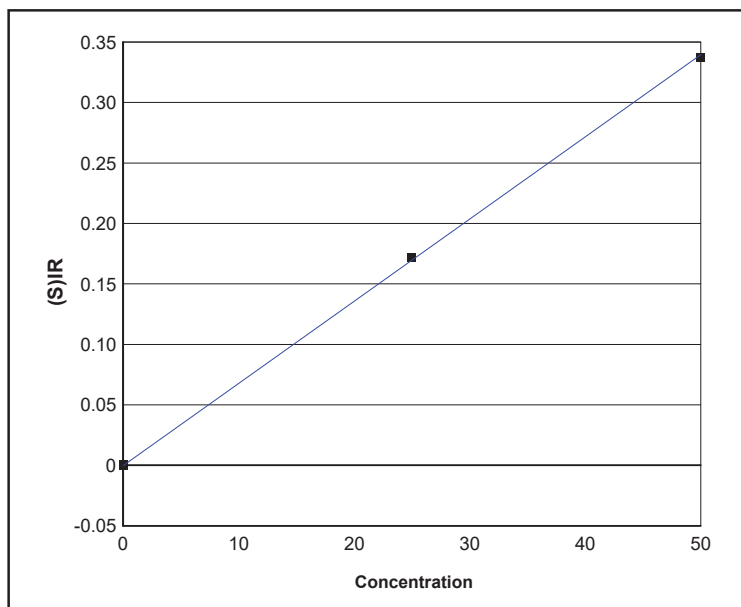
Element Name:	Cu
Element Wavelength:	Cu 327.396 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99991
A0 (Offset):	0.00089251
A1 (Gain):	0.31505
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000014456	0.0000014456	0.00000	0.00089297	0.000055718	1
ic-4970377	0.010000	0.0084957	-0.0015043	-15.043	0.0035721	0.00021453	1
IC-4927698	0.50000	0.50437	0.0043700	0.87399	0.15995	0.00026164	1
IC-4927697	1.0000	0.99713	-0.0028656	-0.28656	0.31534	0.00086895	1



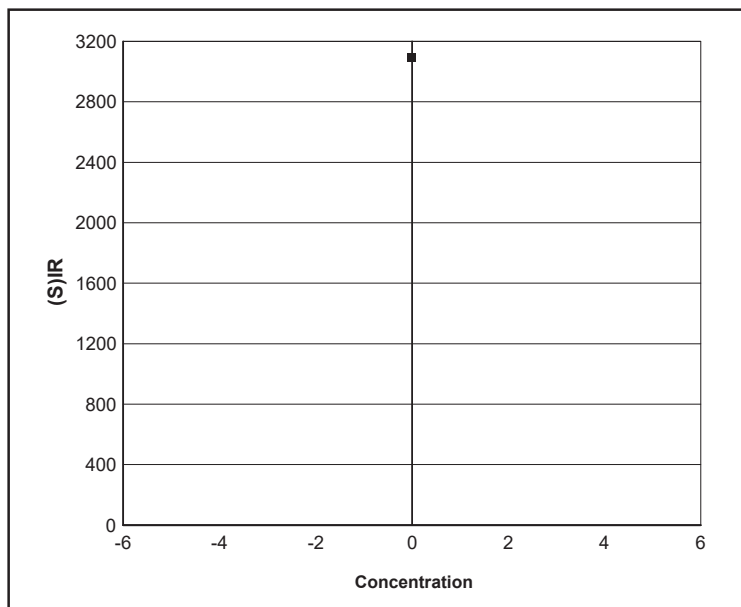
Element Name:		Fe
Element Wavelength:		Fe 259.940 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99986
A0 (Offset):		0.00041224
A1 (Gain):		0.10826
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000011731	-0.0000011731	0.00000	0.00041211	0.00017388	1
ic-4970377	0.050000	0.050584	0.00058391	1.1678	0.0058883	0.00043234	1
IC-4927698	25.000	25.590	0.58973	2.3589	2.7707	0.0043546	1
IC-4927697	50.000	49.410	-0.59032	-1.1806	5.3494	0.0028082	1



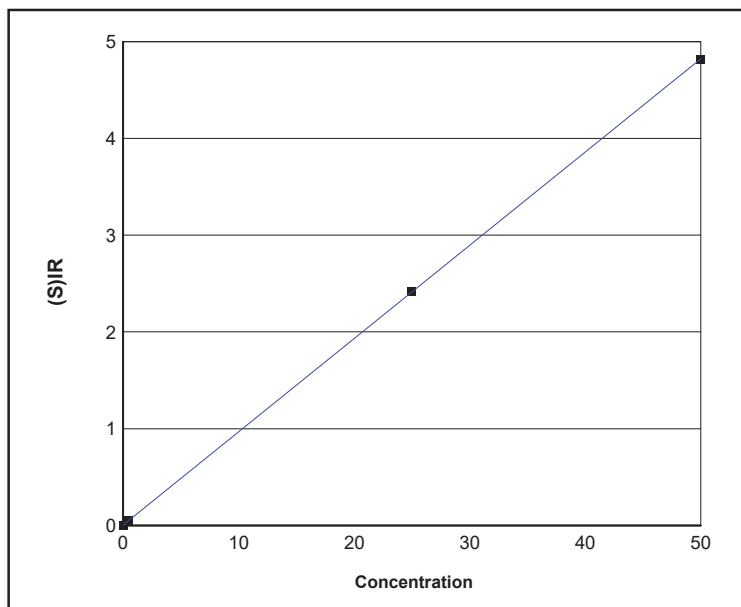
Element Name:		Fe
Element Wavelength:		Fe 271.441 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99971
A0 (Offset):		-0.00014987
A1 (Gain):		0.0067930
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	-0.000042572	-0.000042572	0.00000	-0.00015016	0.00023566	1
ic-4970377	0.050000	0.092273	0.042273	84.546	0.00047695	0.000094298	1
IC-4927698	25.000	25.341	0.34097	1.3639	0.17199	0.00066014	1
IC-4927697	50.000	49.617	-0.38324	-0.76649	0.33690	0.0014759	1



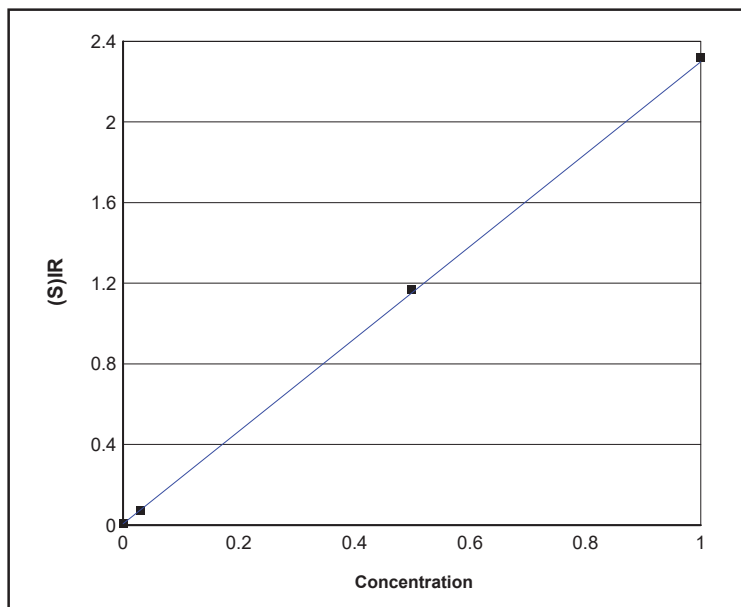
Element Name:		In
Element Wavelength:		In 230.606 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:34:26AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.0000			0.0000	3,092	1.796	1



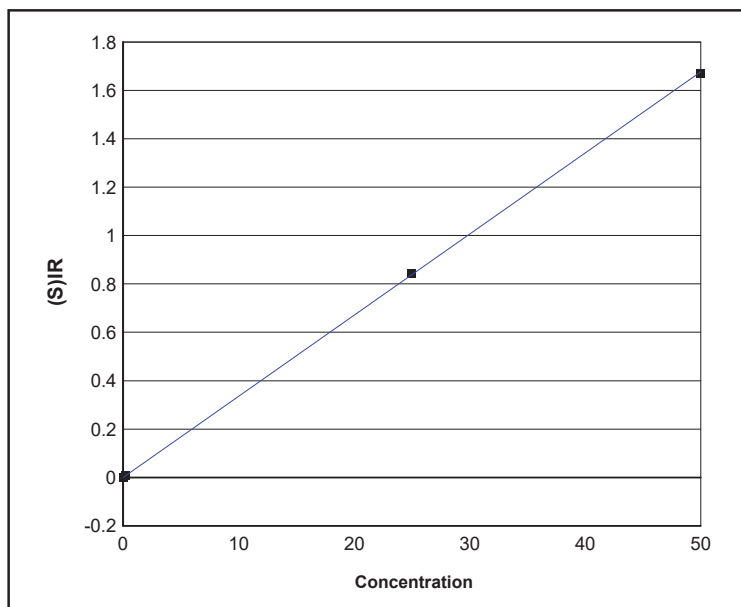
Element Name:		K
Element Wavelength:		K 766.490 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		1.00000
A0 (Offset):		0.0040582
A1 (Gain):		0.096351
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	-0.000012149	-0.000012149	0.00000	0.0040570	0.0037590	1
ic-4970377	0.50000	0.51161	0.011605	2.3210	0.053352	0.0025564	1
IC-4927698	25.000	25.066	0.065998	0.26399	2.4192	0.0023438	1
IC-4927697	50.000	49.922	-0.077604	-0.15521	4.8141	0.0067225	1



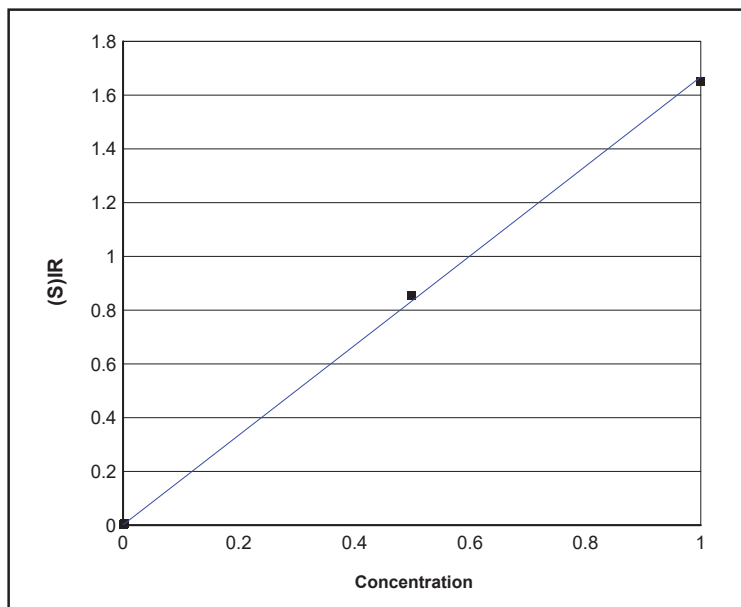
Element Name:	Li
Element Wavelength:	Li 670.784 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99994
A0 (Offset):	0.0069174
A1 (Gain):	2.2913
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000022083	0.0000022083	0.00000	0.0069225	0.0019271	1
ic-4970377	0.030000	0.027674	-0.0023259	-7.7530	0.070536	0.0066013	1
IC-4927698	0.50000	0.50161	0.0016077	0.32155	1.1667	0.0018778	1
IC-4927697	1.0000	1.0007	0.00070418	0.070418	2.3207	0.0025829	1



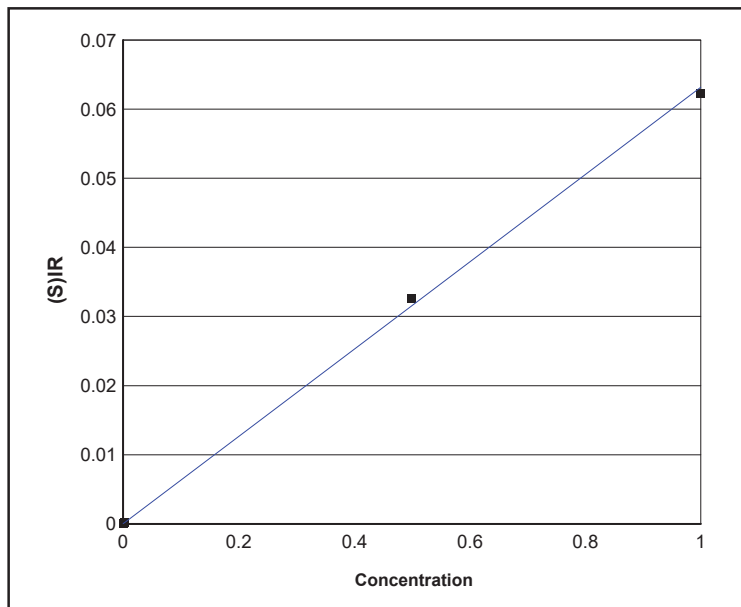
Element Name:	Mg
Element Wavelength:	Mg 279.079 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99999
A0 (Offset):	-0.00016447
A1 (Gain):	0.033550
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000006852	-0.0000006852	0.00000	-0.00016450	0.00010200	1
ic-4970377	0.20000	0.19993	-0.000065082	-0.032541	0.0065429	0.000015016	1
IC-4927698	25.000	25.188	0.18752	0.75007	0.84480	0.0019667	1
IC-4927697	50.000	49.813	-0.18745	-0.37490	1.6709	0.0029660	1



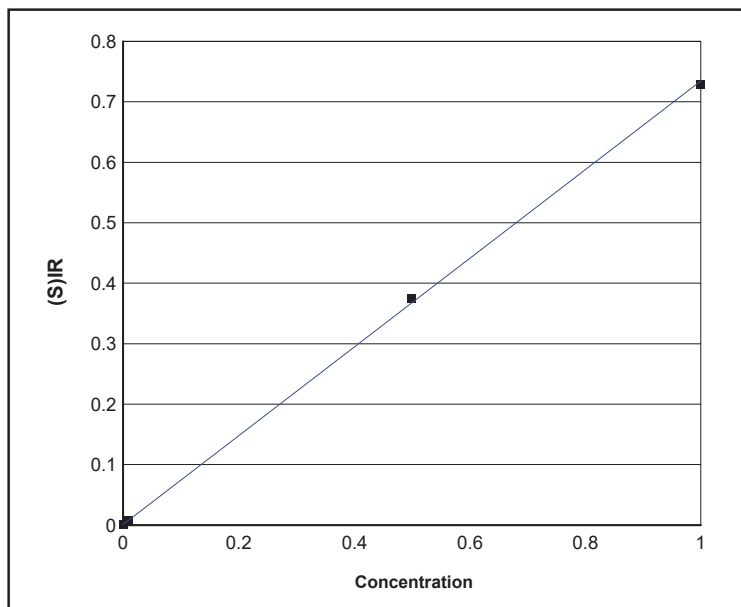
Element Name:	Mn
Element Wavelength:	Mn 257.610 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99989
A0 (Offset):	0.0014977
A1 (Gain):	1.6667
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000000875	0.0000000875	0.00000	0.0014978	0.000052593	1
ic-4970377	0.0030000	0.0028803	-0.00011969	-3.9896	0.0063010	0.000043910	1
IC-4927698	0.50000	0.51060	0.010598	2.1196	0.85292	0.00053882	1
IC-4927697	1.0000	0.98952	-0.010478	-1.0478	1.6515	0.0041050	1



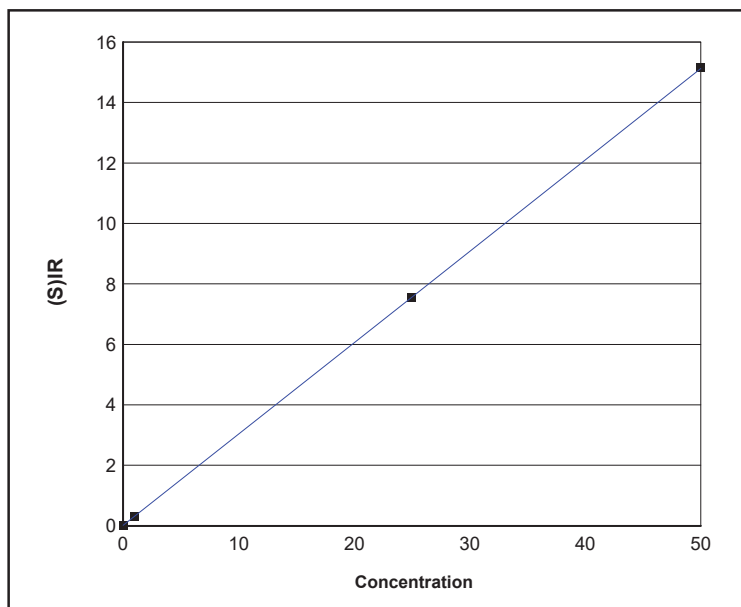
Element Name:	Mn
Element Wavelength:	Mn 257.610 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99974
A0 (Offset):	0.000019574
A1 (Gain):	0.063166
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000005219	-0.0000005219	0.00000	0.000019541	0.000059535	1
ic-4970377	0.0030000	0.0034783	0.00047828	15.943	0.00023938	0.000072278	1
IC-4927698	0.50000	0.51503	0.015031	3.0062	0.032567	0.00016987	1
IC-4927697	1.0000	0.98449	-0.015509	-1.5509	0.062236	0.00033579	1



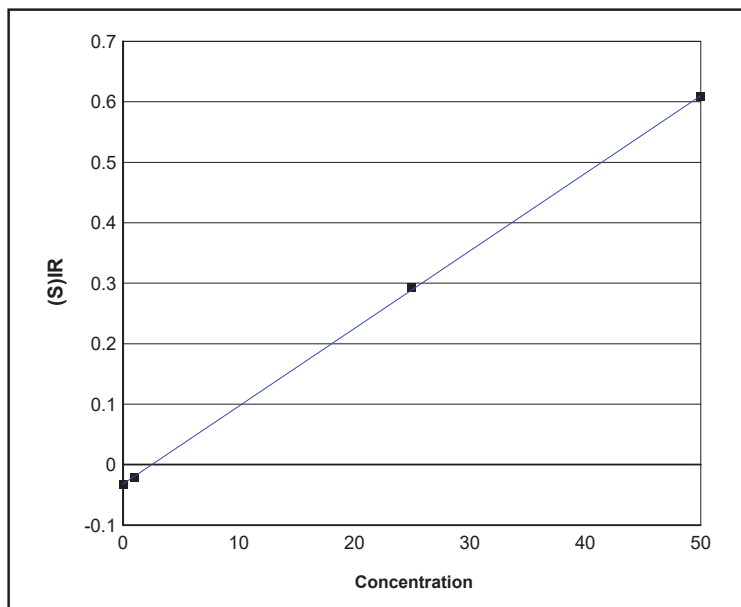
Element Name:		Mo
Element Wavelength:		Mo 202.030 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99989
A0 (Offset):		0.0011760
A1 (Gain):		0.73300
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000009253	0.0000009253	0.00000	0.0011767	0.00013320	1
ic-4970377	0.010000	0.0089766	-0.0010234	-10.234	0.0077559	0.000068499	1
IC-4927698	0.50000	0.50878	0.0087815	1.7563	0.37411	0.0014957	1
IC-4927697	1.0000	0.99224	-0.0077582	-0.77582	0.72849	0.0012737	1



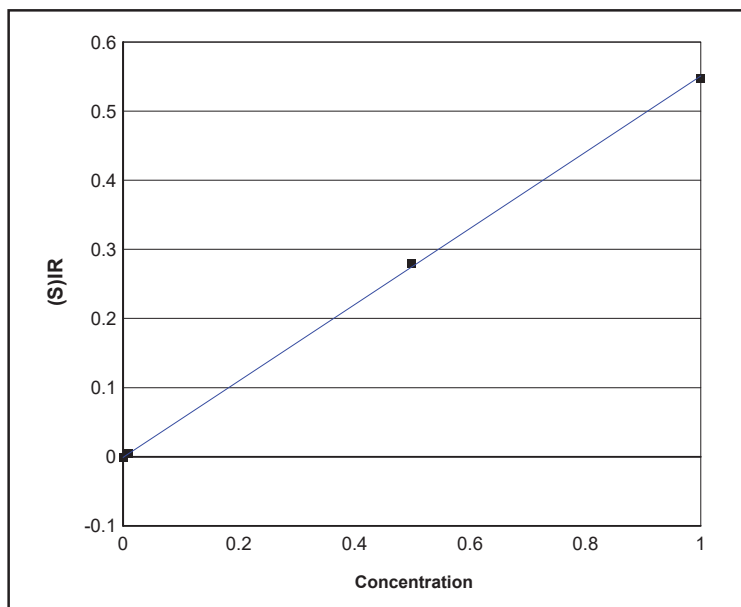
Element Name:		Na
Element Wavelength:		Na 589.592 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99997
A0 (Offset):		0.018120
A1 (Gain):		0.30213
A2 (Curvature):		0.00000
n (Exponent):		1.0000
		ReslopeQC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.000061561	0.000061561	0.00000	0.018139	0.00055293	1
ic-4970377	1.0000	0.93874	-0.061260	-6.1260	0.30174	0.0016066	1
IC-4927698	25.000	24.924	-0.076300	-0.30520	7.5483	0.0015736	1
IC-4927697	50.000	50.138	0.13756	0.27512	15.166	0.00080595	1



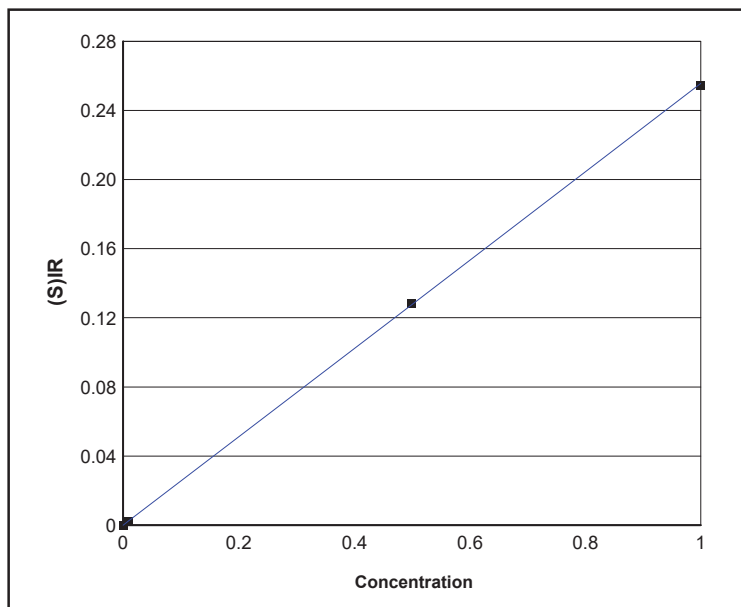
Element Name:		Na
Element Wavelength:		Na 818.326 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99980
A0 (Offset):		-0.032211
A1 (Gain):		0.012849
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.00015239	0.00015239	0.00000	-0.032209	0.0012774	1
ic-4970377	1.0000	0.83814	-0.16186	-16.186	-0.021441	0.0010525	1
IC-4927698	25.000	25.312	0.31173	1.2469	0.29303	0.0015284	1
IC-4927697	50.000	49.850	-0.14987	-0.29975	0.60833	0.0030809	1



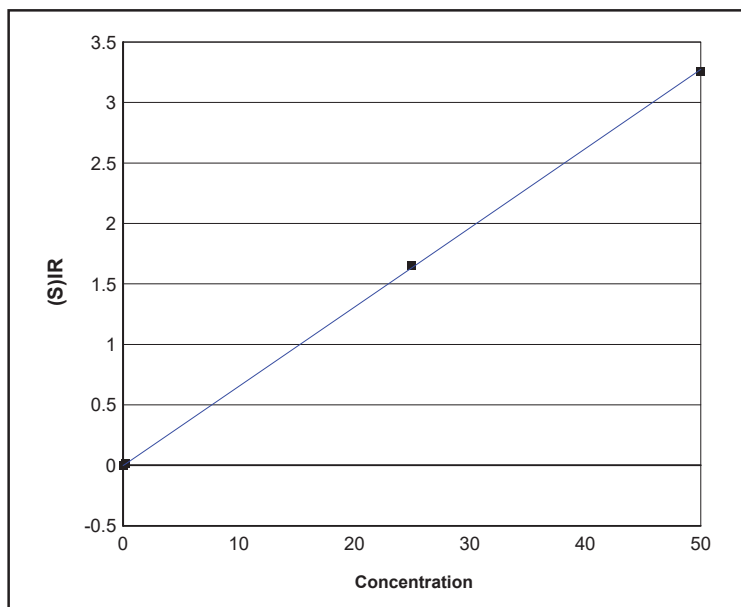
Element Name:		Ni
Element Wavelength:		Ni 231.604 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99994
A0 (Offset):		-0.00080320
A1 (Gain):		0.55156
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000005562	-0.0000005562	0.00000	-0.00080351	0.000094520	1
ic-4970377	0.010000	0.010493	0.00049317	4.9317	0.0049848	0.000014788	1
IC-4927698	0.50000	0.50680	0.0067975	1.3595	0.27894	0.0000029681	1
IC-4927697	1.0000	0.99271	-0.0072903	-0.72903	0.54717	0.00069838	1



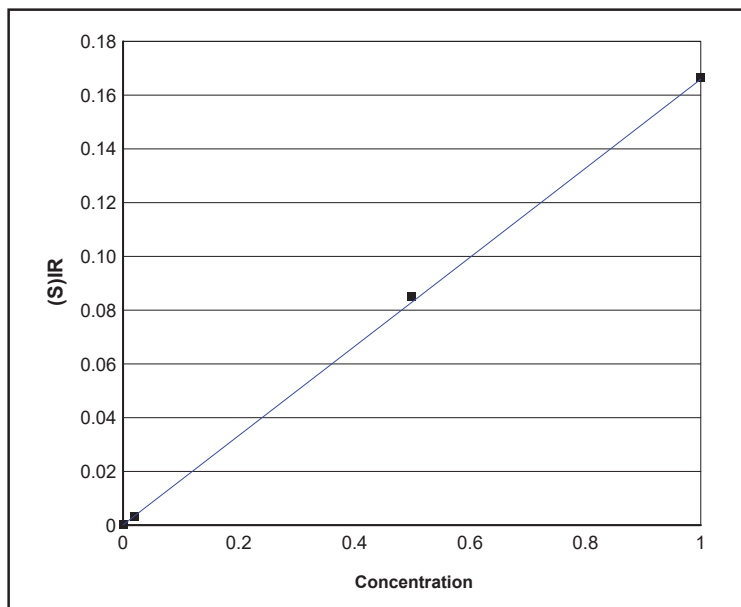
Element Name:		Pb
Element Wavelength:		Pb 220.353 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99995
A0 (Offset):		0.0000007339
A1 (Gain):		0.25561
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000010824	0.0000010824	0.00000	0.0000010106	0.00016523	1
ic-4970377	0.010000	0.0088682	-0.0011318	-11.318	0.0022612	0.00010166	1
IC-4927698	0.50000	0.50381	0.0038107	0.76213	0.12842	0.00010338	1
IC-4927697	1.0000	0.99732	-0.0026784	-0.26784	0.25421	0.00078264	1



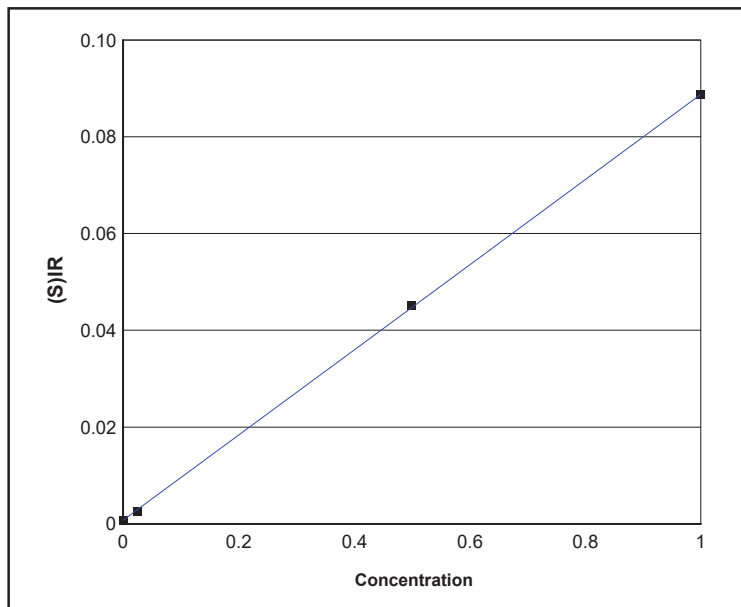
Element Name:		S
Element Wavelength:		S 182.034 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99996
A0 (Offset):		-0.0012671
A1 (Gain):		0.065493
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000041975	0.0000041975	0.00000	-0.0012668	0.00021252	1
ic-4970377	0.20000	0.19458	-0.0054158	-2.7079	0.011477	0.00017191	1
IC-4927698	25.000	25.299	0.29917	1.1967	1.6557	0.0013789	1
IC-4927697	50.000	49.706	-0.29375	-0.58750	3.2542	0.0022950	1



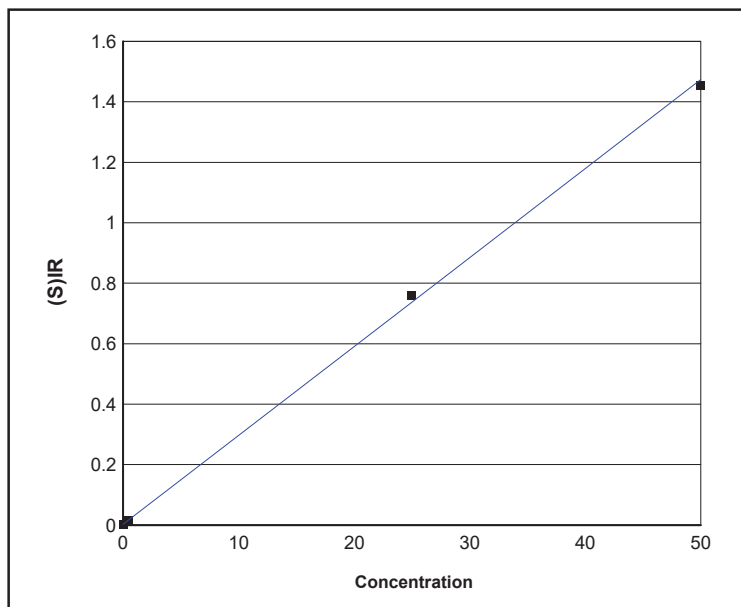
Element Name:		Sb
Element Wavelength:		Sb 206.833 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99987
A0 (Offset):		0.00011513
A1 (Gain):		0.16577
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000020401	0.0000020401	0.00000	0.00011547	0.00019162	1
ic-4970377	0.02000	0.017765	-0.0022349	-11.175	0.0030665	0.00020196	1
IC-4927698	0.50000	0.50752	0.0075202	1.5040	0.085040	0.000086728	1
IC-4927697	1.0000	0.99470	-0.0053022	-0.53022	0.16659	0.00026421	1



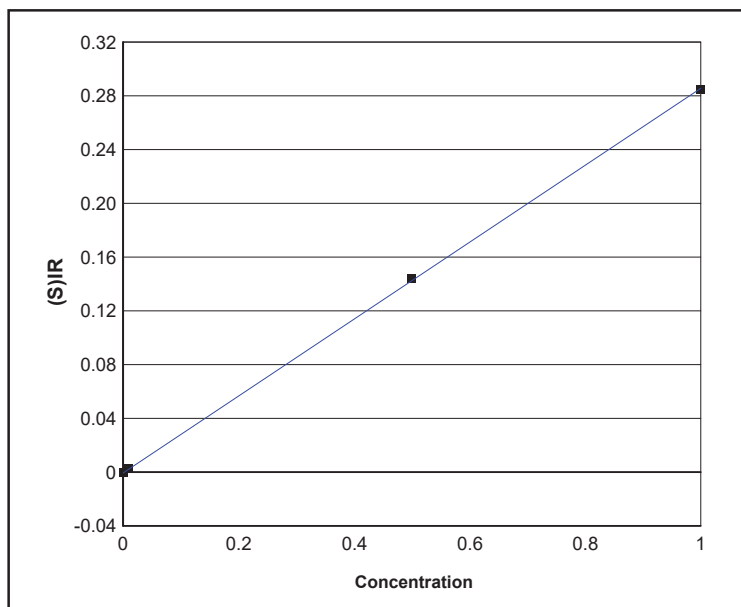
Element Name:		Se
Element Wavelength:		Se 196.090 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99966
A0 (Offset):		0.00074714
A1 (Gain):		0.087990
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000046862	0.0000046862	0.00000	0.00074755	0.000019910	1
ic-4970377	0.02500	0.020062	-0.0049376	-19.750	0.0025124	0.00011277	1
IC-4927698	0.50000	0.50512	0.0051177	1.0235	0.045193	0.00029351	1
IC-4927697	1.0000	0.99982	-0.00018004	-0.018004	0.088722	0.00014808	1



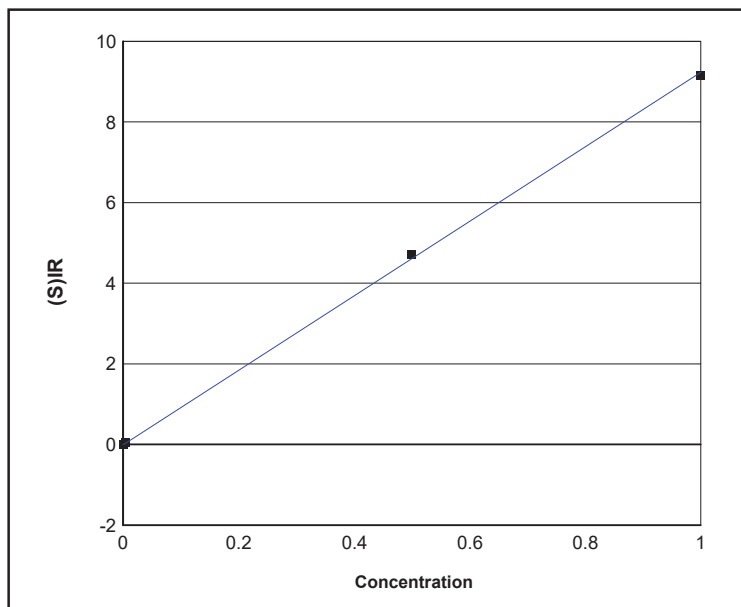
Element Name:		Si
Element Wavelength:		Si 288.158 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99981
A0 (Offset):		0.0027297
A1 (Gain):		0.029412
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.000022966	0.000022966	0.00000	0.0027304	0.00066597	1
ic-4970377	0.50000	0.47000	-0.029997	-5.9994	0.016556	0.000045881	1
IC-4927698	25.000	25.673	0.67306	2.6923	0.75813	0.0032952	1
IC-4927697	50.000	49.357	-0.64307	-1.2861	1.4550	0.0012273	1



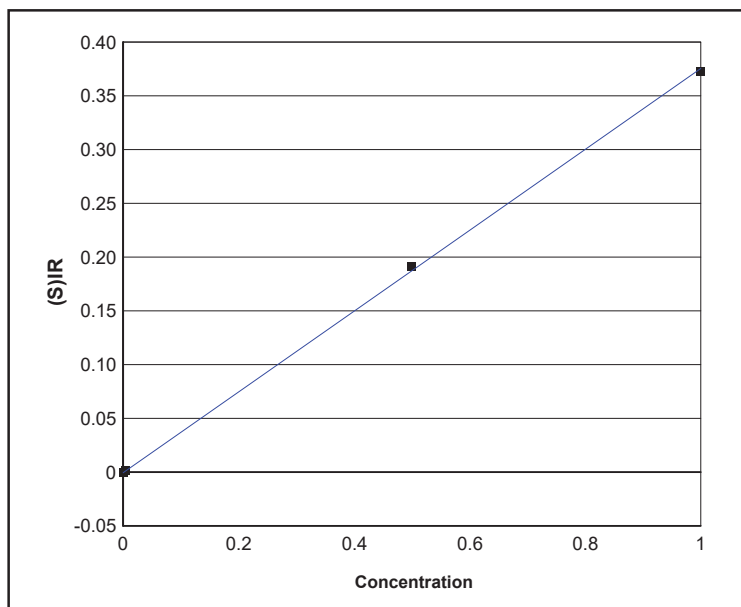
Element Name:		Sn
Element Wavelength:		Sn 189.989 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99998
A0 (Offset):		-0.00061572
A1 (Gain):		0.28628
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000000431	-0.0000000431	0.00000	-0.00061573	0.00015097	1
ic-4970377	0.010000	0.0099998	-0.0000001869	-0.0018686	0.0022470	0.000012556	1
IC-4927698	0.50000	0.50433	0.0043298	0.86595	0.14376	0.00028895	1
IC-4927697	1.0000	0.99567	-0.0043296	-0.43296	0.28443	0.00034101	1



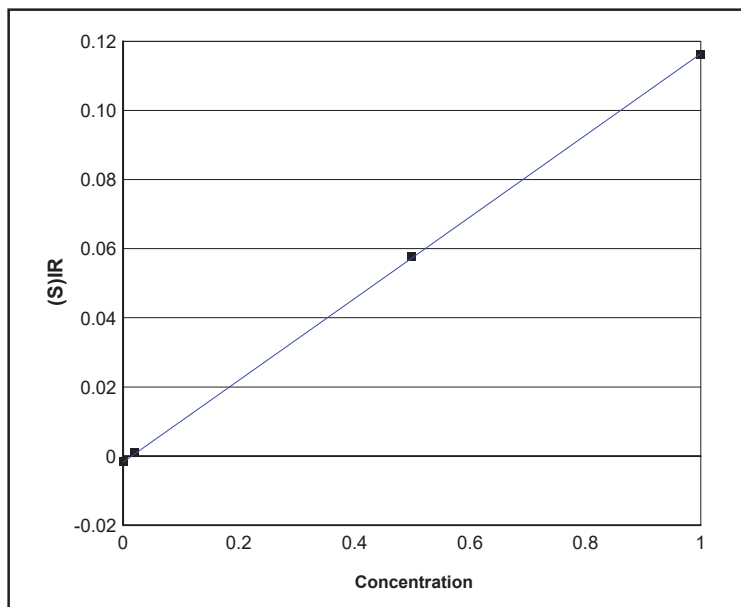
Element Name:		Sr	
Element Wavelength:		Sr 407.771 nm	
Concentration Units:		ppm	
Date of Calibration:		11/2/2018 9:45:04AM	
Date of Fit:		11/2/2018 10:31:18AM	
Type of Fit:		Linear	
Correlation:		0.99991	
A0 (Offset):		-0.0032315	
A1 (Gain):		9.2357	
A2 (Curvature):		0.00000	
n (Exponent):		1.0000	
Reslope		QC Normalize	
Slope:	1.0000	Slope factor:	1.0000
Y Int:	0.00000	Offset:	0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000001919	-0.0000001919	0.00000	-0.0032332	0.00016093	1
ic-4970377	0.0050000	0.0051470	0.00014702	2.9404	0.044470	0.00051752	1
IC-4927698	0.50000	0.50912	0.0091248	1.8250	4.7072	0.0091268	1
IC-4927697	1.0000	0.99073	-0.0092721	-0.92721	9.1634	0.00018219	1



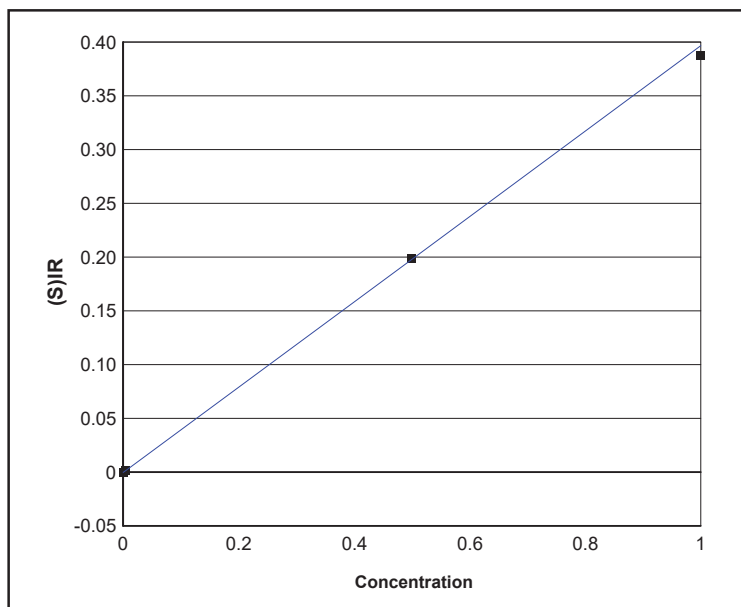
Element Name:		Ti	
Element Wavelength:		Ti 334.904 nm	
Concentration Units:		ppm	
Date of Calibration:		11/2/2018 9:45:04AM	
Date of Fit:		11/2/2018 10:31:18AM	
Type of Fit:		Linear	
Correlation:		0.99992	
A0 (Offset):		-0.00048669	
A1 (Gain):		0.37600	
A2 (Curvature):		0.00000	
n (Exponent):		1.0000	
Reslope		QC Normalize	
Slope:	1.0000	Slope factor:	1.0000
Y Int:	0.00000	Offset:	0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)/IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000002275	-0.0000002275	0.00000	-0.00048678	0.000074245	1
ic-4970377	0.0050000	0.0051848	0.00018477	3.6954	0.0014661	0.00015007	1
IC-4927698	0.50000	0.50872	0.0087223	1.7445	0.19099	0.00056584	1
IC-4927697	1.0000	0.99109	-0.0089072	-0.89072	0.37257	0.00071540	1



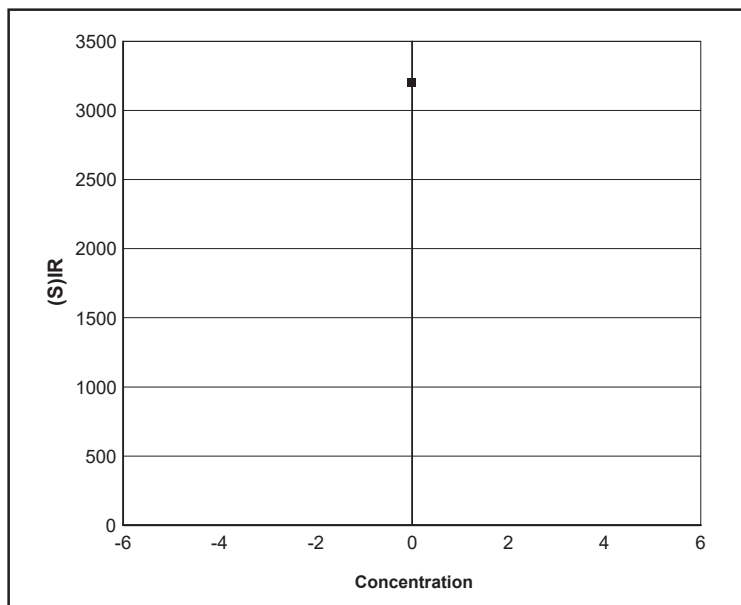
Element Name:	TI
Element Wavelength:	TI 190.856 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99992
A0 (Offset):	-0.0017509
A1 (Gain):	0.11821
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000020333	-0.0000020333	0.00000	-0.0017512	0.00032203	1
ic-4970377	0.020000	0.022017	0.0020167	10.084	0.00085244	0.000020825	1
IC-4927698	0.50000	0.50284	0.0028400	0.56799	0.057795	0.00011089	1
IC-4927697	1.0000	0.99515	-0.0048538	-0.48538	0.11610	0.0000095309	1



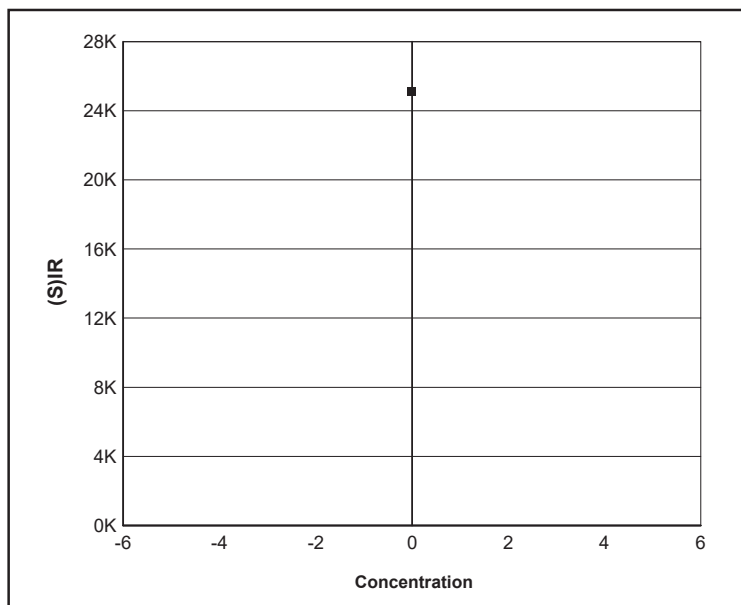
Element Name:	V
Element Wavelength:	V 292.402 nm
Concentration Units:	ppm
Date of Calibration:	11/2/2018 9:45:04AM
Date of Fit:	11/2/2018 10:31:18AM
Type of Fit:	Linear
Correlation:	0.99989
A0 (Offset):	-0.00036421
A1 (Gain):	0.39687
A2 (Curvature):	0.00000
n (Exponent):	1.0000
Reslope	QC Normalize
Slope: 1.0000	Slope factor: 1.0000
Y Int: 0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000006414	0.0000006414	0.00000	-0.00036396	0.00019108	1
ic-4970377	0.0050000	0.0043114	-0.00068856	-13.771	0.0012878	0.00020204	1
IC-4927698	0.50000	0.50875	0.0087532	1.7506	0.19875	0.00077779	1
IC-4927697	1.0000	0.99192	-0.0080755	-0.80755	0.38770	0.00023143	1



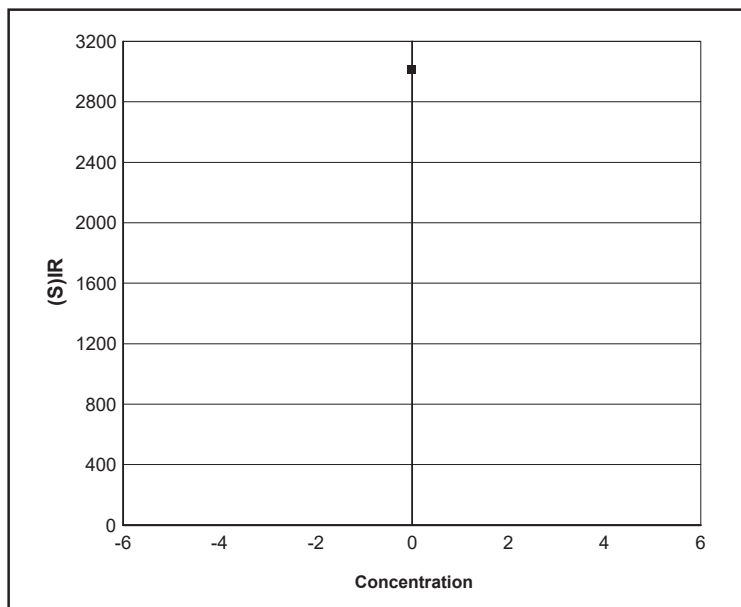
Element Name:		Y
Element Wavelength:		Y 224.306 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:34:26AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.0000			0.0000	3,198	5.133	1



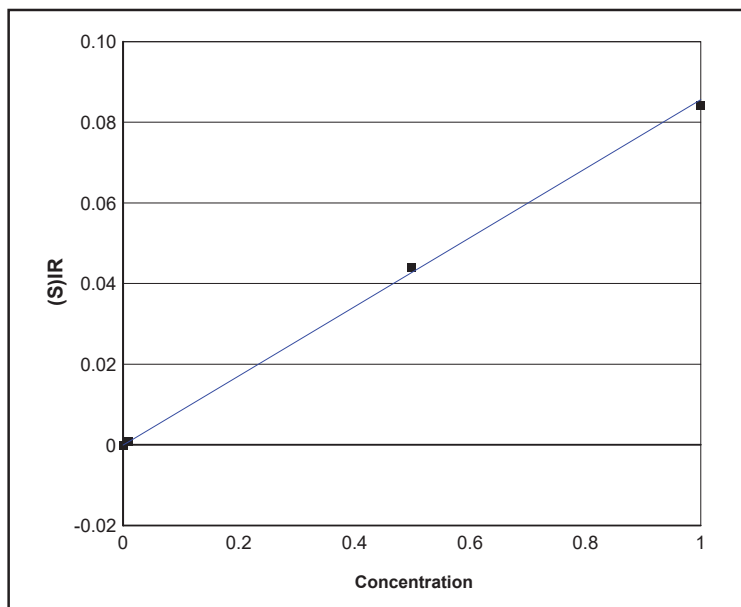
Element Name:		Y
Element Wavelength:		Y 360.073 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:34:26AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.0000			0.0000	25,130	17.91	1



Element Name:		Y
Element Wavelength:		Y 377.433 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:34:26AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.0000
A0 (Offset):		0.0000
A1 (Gain):		0.0000
A2 (Curvature):		0.0000
n (Exponent):		1.000
Reslope		QC Normalize
Slope:	1.000	Slope factor: 1.000
Y Int:	0.0000	Offset: 0.0000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.0000			0.0000	3,016	24.82	1



Element Name:		Zn
Element Wavelength:		Zn 206.200 nm
Concentration Units:		ppm
Date of Calibration:		11/2/2018 9:45:04AM
Date of Fit:		11/2/2018 10:31:18AM
Type of Fit:		Linear
Correlation:		0.99976
A0 (Offset):		-0.000050237
A1 (Gain):		0.085688
A2 (Curvature):		0.00000
n (Exponent):		1.0000
Reslope		QC Normalize
Slope:	1.0000	Slope factor: 1.0000
Y Int:	0.00000	Offset: 0.00000

Standard Name	Stated	Found	Diff	% Diff	(S)IR	Stddev	Emphasis
icis-4975309	0.00000	0.0000003860	-0.0000003860	0.00000	-0.000050270	0.0000017716	1
ic-4970377	0.010000	0.010235	0.00023491	2.3491	0.00082631	0.000018854	1
IC-4927698	0.50000	0.51534	0.015339	3.0679	0.044051	0.00013584	1
IC-4927697	1.0000	0.98443	-0.015574	-1.5574	0.084188	0.000079600	1

Sample Name: icis-4975309 Acquired: 11/2/2018 9:30:47 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00012	.00256	-.00092	.00186	.01307
Stddev	.00022	.00055	.00000	.00007	.00018
%RSD	185.79	21.450	.01803	3.9192	1.4100

#1	.00004	.00217	-.00092	.00181	.01321
#2	-.00028	.00295	-.00092	.00191	.01294

Elem	Ba4554-2	Be3130	Ca3179	Cd2288	**Ce4040
Line	455.403 { 74}2	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00480	-.00154	.00601	.00145	-.0004
Stddev	.00059	.00051	.00030	.00002	.0001
%RSD	12.286	33.402	4.9219	1.3959	25.64

#1	.00438	-.00117	.00621	.00146	-.0004
#2	.00522	-.00190	.00580	.00143	-.0005

Elem	Co2286	Cr2677	Cu3273	Fe2599	Fe2714
Line	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	271.441 {124}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00112	.00009	.00089	.00041	-.00015
Stddev	.00002	.00001	.00056	.00017	.00024
%RSD	1.5844	15.473	62.397	42.193	156.94

#1	-.00113	.00008	.00129	.00029	.00002
#2	-.00110	.00010	.00050	.00054	-.00032

Elem	K_7664	Li6707	Mg2790	Mn2576	Mn2576-2
Line	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	257.610 {131}2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00406	.00692	-.00016	.00150	.00002
Stddev	.00376	.00193	.00010	.00005	.00006
%RSD	92.653	27.838	62.010	3.5113	304.67

#1	.00672	.00829	-.00009	.00153	.00006
#2	.00140	.00556	-.00024	.00146	-.00002

Sample Name: icis-4975309 Acquired: 11/2/2018 9:30:47 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	Na5895	Na8183	Ni2316	Pb2203
Line	202.030 {467}	589.592 { 57}	818.326 { 41}	231.604 {446}	220.353 {453}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00118	.01814	-.03221	-.00080	.00000
Stddev	.00013	.00055	.00128	.00009	.00017
%RSD	11.320	3.0483	3.9659	11.763	16350.

#1	.00127	.01853	-.03131	-.00074	.00012
#2	.00108	.01775	-.03311	-.00087	-.00012

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2	189.989 {477}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00127	.00012	.00075	.00273	-.00062
Stddev	.00021	.00019	.00002	.00067	.00015
%RSD	16.775	165.95	2.6633	24.391	24.519

#1	-.00142	-.00002	.00073	.00226	-.00072
#2	-.00112	.00025	.00076	.00320	-.00051

Elem	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Line	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}	206.200 {163}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00323	-.00049	-.00175	-.00036	-.00005
Stddev	.00016	.00007	.00032	.00019	.00000
%RSD	4.9774	15.252	18.389	52.501	3.5242

#1	-.00335	-.00043	-.00152	-.00050	-.00005
#2	-.00312	-.00054	-.00198	-.00023	-.00005

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3091.6	3198.1	25134.	3016.3
Stddev	1.8	5.1	18.	24.8
%RSD	.05810	.16051	.07125	.82299

#1	3090.3	3194.5	25147.	3033.9
#2	3092.8	3201.7	25121.	2998.8

Sample Name: ic-4970377 Acquired: 11/2/2018 9:34:30 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00189	.00628	.00116	.01213	.02486
Stddev	.00007	.00017	.00010	.00006	.00111
%RSD	3.7315	2.7169	8.9325	.48440	4.4499

#1	.00184	.00616	.00109	.01209	.02564
#2	.00194	.00640	.00124	.01217	.02407

Elem	Ba4554-2	Be3130	Ca3179	Cd2288	Co2286
Line	455.403 { 74}2	313.042 {108}	317.933 {106}	228.802 {447}	228.616 {447}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02367	.00987	.08446	.00654	.00492
Stddev	.00055	.00065	.00071	.00055	.00013
%RSD	2.3187	6.6242	.83656	8.3779	2.6906

#1	.02329	.00940	.08396	.00692	.00482
#2	.02406	.01033	.08496	.00615	.00501

Elem	Cr2677	Cu3273	Fe2599	Fe2714	K_7664
Line	267.716 {126}	327.396 {103}	259.940 {130}	271.441 {124}	766.490 { 44}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00123	.00357	.00589	.00048	.05335
Stddev	.00011	.00021	.00043	.00009	.00256
%RSD	8.8970	6.0056	7.3423	19.771	4.7915

#1	.00115	.00342	.00619	.00054	.05154
#2	.00131	.00372	.00558	.00041	.05516

Elem	Li6707	Mg2790	Mn2576	Mn2576-2	Mo2020
Line	670.784 { 50}	279.079 {121}2	257.610 {131}	257.610 {131}2	202.030 {467}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.07054	.00654	.00630	.00024	.00776
Stddev	.00660	.00002	.00004	.00007	.00007
%RSD	9.3588	.22950	.69687	30.193	.88318

#1	.06587	.00655	.00627	.00019	.00771
#2	.07520	.00653	.00633	.00029	.00780

Sample Name: ic-4970377 Acquired: 11/2/2018 9:34:30 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Na5895	Na8183	Ni2316	Pb2203	S_1820
Line	589.592 { 57}	818.326 { 41}	231.604 {446}	220.353 {453}	182.034 {485}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.30174	-.02144	.00498	.00226	.01148
Stddev	.00161	.00105	.00001	.00010	.00017
%RSD	.53246	4.9087	.29666	4.4959	1.4979

#1	.30288	-.02219	.00497	.00233	.01160
#2	.30060	-.02070	.00500	.00219	.01136

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4077
Line	206.833 {463}	196.090 {472}	288.158 {117}2	189.989 {477}	407.771 { 83}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00307	.00251	.01656	.00225	.04447
Stddev	.00020	.00011	.00005	.00001	.00052
%RSD	6.5863	4.4885	.27712	.55878	1.1637

#1	.00292	.00259	.01659	.00224	.04484
#2	.00321	.00243	.01652	.00226	.04410

Elem	Ti3349	Tl1908	V_2924	Zn2062
Line	334.904 {101}	190.856 {477}	292.402 {115}	206.200 {163}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00147	.00085	.00129	.00083
Stddev	.00015	.00002	.00020	.00002
%RSD	10.236	2.4430	15.688	2.2817

#1	.00136	.00087	.00114	.00084
#2	.00157	.00084	.00143	.00081

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3121.2	3221.0	25297.	3041.0
Stddev	4.7	2.2	155.	8.2
%RSD	.15041	.06694	.61190	.27010

#1	3124.5	3219.4	25406.	3035.2
#2	3117.9	3222.5	25187.	3046.8

Sample Name: IC-4927698 Acquired: 11/2/2018 9:38:12 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.18218	.60806	.06564	.28788	3.2290
Stddev	.00096	.00208	.00014	.00034	.0082
%RSD	.52585	.34241	.21005	.11794	.25502

#1	.18150	.60659	.06574	.28812	3.2231
#2	.18285	.60953	.06554	.28764	3.2348

Elem	Ba4554-2	Be3130	Ca3179	Cd2288	**Ce4040
Line	455.403 { 74}2	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.8420	2.8482	3.9338	1.3082	.0159
Stddev	.0056	.0008	.0077	.0012	.0002
%RSD	.11666	.02667	.19608	.08843	1.272

#1	4.8380	2.8477	3.9283	1.3074	.0157
#2	4.8460	2.8488	3.9392	1.3090	.0160

Elem	Co2286	Cr2677	Cu3273	Fe2599	Fe2714
Line	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	271.441 {124}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.73147	.14340	.15995	2.7707	.17199
Stddev	.00058	.00023	.00026	.0043	.00066
%RSD	.07873	.15738	.16358	.15717	.38382

#1	.73107	.14324	.16013	2.7676	.17153
#2	.73188	.14356	.15976	2.7738	.17246

Elem	K_7664	Li6707	Mg2790	Mn2576	Mn2576-2
Line	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	257.610 {131}2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.4192	1.1667	.84480	.85292	.03257
Stddev	.0023	.0019	.00197	.00054	.00017
%RSD	.09689	.16095	.23280	.06317	.52159

#1	2.4175	1.1654	.84341	.85254	.03245
#2	2.4208	1.1680	.84619	.85330	.03269

Sample Name: IC-4927698 Acquired: 11/2/2018 9:38:12 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	Na5895	Na8183	Ni2316	Pb2203
Line	202.030 {467}	589.592 { 57}	818.326 { 41}	231.604 {446}	220.353 {453}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.37411	7.5483	.29303	.27894	.12842
Stddev	.00150	.0016	.00153	.00000	.00010
%RSD	.39980	.02085	.52160	.00106	.08050

#1	.37517	7.5494	.29195	.27894	.12835
#2	.37305	7.5472	.29411	.27894	.12849

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2	189.989 {477}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.6557	.08504	.04519	.75813	.14376
Stddev	.0014	.00009	.00029	.00330	.00029
%RSD	.08328	.10198	.64946	.43465	.20099

#1	1.6566	.08510	.04540	.75580	.14356
#2	1.6547	.08498	.04499	.76046	.14397

Elem	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Line	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}	206.200 {163}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.7072	.19099	.05779	.19875	.04405
Stddev	.0091	.00057	.00011	.00078	.00014
%RSD	.19389	.29626	.19186	.39135	.30838

#1	4.7007	.19059	.05772	.19820	.04395
#2	4.7136	.19139	.05787	.19930	.04415

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.5	3186.5	25351.	3054.7
Stddev	3.0	1.6	124.	12.3
%RSD	.09773	.05004	.48875	.40385

#1	3107.6	3187.7	25439.	3063.4
#2	3103.3	3185.4	25264.	3046.0

Sample Name: IC-4927697 Acquired: 11/2/2018 9:41:38 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.37257	1.1952	.12913	.56499	6.2931
Stddev	.00095	.0018	.00095	.00010	.0093
%RSD	.25393	.15121	.73560	.01835	.14743

#1	.37324	1.1939	.12980	.56506	6.2997
#2	.37190	1.1965	.12846	.56491	6.2866

Elem	Ba4554-2	Be3130	Ca3179	Cd2288	**Ce4040
Line	455.403 { 74}2	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.4676	5.5276	7.6421	2.5555	.0313
Stddev	.0416	.0041	.0000	.0047	.0011
%RSD	.43903	.07379	.00044	.18474	3.415

#1	9.4970	5.5305	7.6421	2.5589	.0306
#2	9.4382	5.5247	7.6421	2.5522	.0321

Elem	Co2286	Cr2677	Cu3273	Fe2599	Fe2714
Line	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	271.441 {124}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.4342	.27916	.31534	5.3494	.33690
Stddev	.0003	.00068	.00087	.0028	.00148
%RSD	.01980	.24491	.27556	.05250	.43808

#1	1.4340	.27965	.31596	5.3514	.33585
#2	1.4344	.27868	.31473	5.3474	.33794

Elem	K_7664	Li6707	Mg2790	Mn2576	Mn2576-2
Line	766.490 { 44}	670.784 { 50}	279.079 {121}2	257.610 {131}	257.610 {131}2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.8141	2.3207	1.6709	1.6515	.06224
Stddev	.0067	.0026	.0030	.0041	.00034
%RSD	.13964	.11130	.17751	.24855	.53954

#1	4.8094	2.3189	1.6730	1.6544	.06247
#2	4.8189	2.3225	1.6688	1.6486	.06200

Sample Name: IC-4927697 Acquired: 11/2/2018 9:41:38 Type: Cal
Method: ICAP2 Oct2018(v25) Mode: IR Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	Na5895	Na8183	Ni2316	Pb2203
Line	202.030 {467}	589.592 { 57}	818.326 { 41}	231.604 {446}	220.353 {453}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.72849	15.166	.60833	.54717	.25421
Stddev	.00127	.001	.00308	.00070	.00078
%RSD	.17484	.00531	.50646	.12764	.30787

#1	.72939	15.167	.61051	.54667	.25365
#2	.72759	15.166	.60615	.54766	.25476

Elem	S_1820	Sb2068	Se1960	Si2881	Sn1899
Line	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2	189.989 {477}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.2542	.16659	.08872	1.4550	.28443
Stddev	.0023	.00026	.00015	.0012	.00034
%RSD	.07052	.15860	.16691	.08435	.11989

#1	3.2558	.16678	.08883	1.4541	.28418
#2	3.2525	.16641	.08862	1.4559	.28467

Elem	Sr4077	Ti3349	Ti1908	V_2924	Zn2062
Line	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}	206.200 {163}
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.1634	.37257	.11610	.38770	.08419
Stddev	.0002	.00072	.00001	.00023	.00008
%RSD	.00199	.19202	.00821	.05969	.09455

#1	9.1635	.37206	.11610	.38787	.08413
#2	9.1633	.37307	.11609	.38754	.08424

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3046.5	3174.5	25451.	3027.5
Stddev	2.1	9.0	5.	7.3
%RSD	.06880	.28196	.01788	.24269

#1	3045.0	3168.2	25448.	3032.7
#2	3048.0	3180.9	25455.	3022.3

Sample Name: icv-4954074 Acquired: 11/2/2018 9:45:08 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37722	18.439	.36832	.36797	.37001
Stddev	.00281	.053	.00142	.00114	.00259
%RSD	.74549	.28948	.38600	.31110	.69981

#1	.37921	18.476	.36731	.36878	.37184
#2	.37523	18.401	.36932	.36716	.36818

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37407	18.892	.37081	.0145	.37081
Stddev	.00132	.033	.00000	.0224	.00016
%RSD	.35337	.17639	.00021	154.8	.04242

#1	.37500	18.915	.37081	-.0014	.37070
#2	.37313	18.868	.37081	.0303	.37092

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37846	.36961	18.832	18.552	.36372
Stddev	.00222	.00341	.083	.063	.00186
%RSD	.58790	.92217	.43817	.33798	.51238

#1	.38003	.37202	18.891	18.596	.36503
#2	.37689	.36720	18.774	18.508	.36240

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: icv-4954074 Acquired: 11/2/2018 9:45:08 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.329	.38688	.37572	18.433	.37144
Stddev	.087	.00191	.00018	.021	.00063
%RSD	.47214	.49251	.04750	.11618	.17040

#1	18.391	.38823	.37560	18.448	.37100
#2	18.268	.38553	.37585	18.417	.37189

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.36731	18.351	.36407	.35703	19.040
Stddev	.00280	.003	.00079	.00433	.040
%RSD	.76140	.01656	.21695	1.2117	.20839

#1	.36534	18.354	.36462	.36009	19.068
#2	.36929	18.349	.36351	.35397	19.012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.38089	.38616	.37413	.36650	.37807
Stddev	.00189	.00169	.00071	.00176	.00147
%RSD	.49627	.43877	.18932	.48079	.38785

#1	.37956	.38736	.37463	.36775	.37911
#2	.38223	.38496	.37362	.36526	.37704

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: icv-4954074 Acquired: 11/2/2018 9:45:08 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.38034**
 Stddev .00044
 %RSD .11600

#1 **.38003**
 #2 **.38065**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3132.7	3187.0	25302.	3042.0
Stddev	.4	1.1	98.	12.2
%RSD	.01279	.03603	.38655	.39940
#1	3133.0	3186.2	25233.	3033.4
#2	3132.4	3187.8	25371.	3050.5

Sample Name: icb-4975309 Acquired: 11/2/2018 9:48:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	-.07138	.00171	.00010	.00005
Stddev	.00038	.00717	.00042	.00013	.00003
%RSD	47.230	10.043	24.703	136.01	59.717

#1	-.00054	-.06631	.00141	.00019	.00003
#2	-.00107	-.07645	.00200	.00000	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00385	-.00002	-.0269	.00014
Stddev	.00002	.00362	.00008	.0171	.00031
%RSD	28.397	94.098	326.59	63.56	221.91

#1	-.00005	-.00129	.00003	-.0148	.00036
#2	-.00007	-.00641	-.00008	-.0390	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00129	-.00075	-.00976	-.00105
Stddev	.00024	.00067	.00012	.00230	.00128
%RSD	282.96	51.906	16.152	23.599	122.24

#1	-.00025	-.00082	-.00067	-.01139	-.00014
#2	.00008	-.00176	-.00084	-.00813	-.00196

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: icb-4975309 Acquired: 11/2/2018 9:48:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00434	.00000	.00089	-.02514	.00005
Stddev	.00429	.00003	.00017	.00736	.00030
%RSD	98.818	50871.	18.832	29.279	651.44

#1	.00737	-.00002	.00077	-.03035	-.00017
#2	.00131	.00002	.00101	-.01994	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00132	-.00225	-.00077	-.00114	-.04163
Stddev	.00014	.00076	.00141	.00154	.03411
%RSD	10.969	33.897	183.71	135.38	81.932

#1	.00122	-.00171	.00023	-.00005	-.01751
#2	.00142	-.00280	-.00177	-.00222	-.06575

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.00006	.00036	.00094	-.00069
Stddev	.00033	.00019	.00081	.00029	.00052
%RSD	1305.9	329.69	223.90	31.021	75.269

#1	-.00021	-.00019	-.00021	.00074	-.00105
#2	.00026	.00008	.00094	.00115	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: icb-4975309 Acquired: 11/2/2018 9:48:37 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00025**
 Stddev .00053
 %RSD 209.35

#1 **-.00063**
 #2 **.00012**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3102.3	3177.5	24943.	2981.5
Stddev	10.0	16.1	63.	17.4
%RSD	.32327	.50794	.25197	.58520
#1	3095.2	3166.1	24987.	2993.9
#2	3109.4	3188.9	24898.	2969.2

Sample Name: lcvl-4970377 Acquired: 11/2/2018 9:52:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00512	.18599	.01481	.01890	.00201
Stddev	.00023	.05742	.00095	.00046	.00002
%RSD	4.4329	30.872	6.4086	2.4204	.84316

#1	.00496	.22659	.01548	.01922	.00202
#2	.00529	.14539	.01414	.01857	.00200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00216	.50923	.00204	-.0013	.00423
Stddev	.00003	.00389	.00014	.0275	.00023
%RSD	1.2319	.76444	6.7231	2068.	5.4832

#1	.00218	.50648	.00195	.0181	.00407
#2	.00214	.51199	.00214	-.0208	.00440

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00403	.00841	.05081	.45708	.02802
Stddev	.00090	.00030	.00285	.01217	.00109
%RSD	22.373	3.5664	5.6138	2.6631	3.8903

#1	.00339	.00862	.05283	.44848	.02725
#2	.00467	.00820	.04880	.46569	.02879

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: lcvl-4970377 Acquired: 11/2/2018 9:52:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19459	.00289	.00937	.94022	.01071
Stddev	.00321	.00009	.00012	.00661	.00061
%RSD	1.6500	3.1768	1.2948	.70283	5.6800

#1	.19232	.00283	.00929	.94489	.01114
#2	.19686	.00296	.00946	.93555	.01028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01031	.19458	.01858	.02071	.47859
Stddev	.00101	.00048	.00065	.00004	.01515
%RSD	9.8382	.24590	3.4724	.21142	3.1662

#1	.00960	.19424	.01903	.02074	.46787
#2	.01103	.19492	.01812	.02067	.48930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01036	.00505	.00553	.02143	.00501
Stddev	.00001	.00016	.00008	.00086	.00025
%RSD	.10602	3.2091	1.4546	4.0196	4.9064

#1	.01037	.00517	.00548	.02204	.00484
#2	.01035	.00494	.00559	.02083	.00519

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: lcvl-4970377 Acquired: 11/2/2018 9:52:19 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01067**
 Stddev .00048
 %RSD 4.5230

#1 **.01101**
 #2 **.01033**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3133.3	3207.6	25249.	3040.7
Stddev	.8	2.4	19.	5.0
%RSD	.02395	.07604	.07686	.16363
#1	3133.8	3209.3	25235.	3037.2
#2	3132.7	3205.8	25262.	3044.2

Sample Name: ICSA-4901305 Acquired: 11/2/2018 9:56:02 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00152	491.90	-.00386	-.00244	.00099
Stddev	.00093	1.48	.00167	.00007	.00006
%RSD	61.216	.30000	43.383	2.9381	5.7479

#1	-.00218	492.94	-.00504	-.00249	.00103
#2	-.00086	490.86	-.00268	-.00239	.00095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	479.13	-.00023	.0221	-.00019
Stddev	.00009	2.60	.00021	.0118	.00001
%RSD	1498.0	.54208	90.486	53.72	4.4844

#1	.00006	480.97	-.00008	.0137	-.00018
#2	-.00007	477.30	-.00037	.0304	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.00553	187.70	-.03749	.00252
Stddev	.00005	.00015	1.02	.02799	.00116
%RSD	7.8668	2.7865	.54347	74.669	46.200

#1	.00054	.00564	188.42	-.05728	.00334
#2	.00061	.00543	186.97	-.01769	.00170

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICSA-4901305 Acquired: 11/2/2018 9:56:02 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	536.72	-.00046	-.00228	.00996	.00146
Stddev	4.19	.00002	.00013	.00482	.00037
%RSD	.78070	3.6492	5.7126	48.357	25.472

#1	533.76	-.00047	-.00237	.01337	.00120
#2	539.68	-.00045	-.00218	.00656	.00172

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00272	.01765	-.00537	-.00138	-.02903
Stddev	.00195	.00177	.00380	.00368	.00760
%RSD	71.840	10.005	70.710	267.04	26.183

#1	.00410	.01641	-.00805	.00122	-.03440
#2	.00134	.01890	-.00268	-.00398	-.02366

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00066	.01517	-.00088	-.00394	-.00255
Stddev	.00025	.00015	.00022	.00068	.00011
%RSD	37.358	.99705	24.622	17.290	4.4877

#1	-.00084	.01506	-.00072	-.00346	-.00263
#2	-.00049	.01528	-.00103	-.00442	-.00247

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICSA-4901305 Acquired: 11/2/2018 9:56:02 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.00366**
Stddev .00071
%RSD 19.309

#1 **.00416**
#2 **.00316**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2749.7	3000.5	24200.	2983.5
Stddev	5.8	4.0	5.	11.4
%RSD	.21105	.13174	.02151	.38090
#1	2745.6	2997.7	24196.	2975.5
#2	2753.8	3003.3	24204.	2991.6

Sample Name: ICSAB-4954073 Acquired: 11/2/2018 9:59:45 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21561	508.45	.09764	.00093	.51408
Stddev	.00239	.15	.00409	.00064	.00208
%RSD	1.1064	.02863	4.1847	69.374	.40420

#1	.21729	508.35	.10053	.00138	.51555
#2	.21392	508.55	.09475	.00047	.51261

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49221	482.57	1.0004	-.0493	.48445
Stddev	.00166	.61	.0032	.0505	.00052
%RSD	.33820	.12547	.32207	102.5	.10832

#1	.49103	482.14	1.0027	-.0850	.48482
#2	.49338	482.99	.99810	-.0136	.48408

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47431	.55518	92.068	-.00644	.51858
Stddev	.00401	.00144	.095	.00700	.00131
%RSD	.84449	.25896	.10324	108.80	.25199

#1	.47715	.55620	92.135	-.01139	.51766
#2	.47148	.55417	92.001	-.00149	.51951

Check ?	Chk Pass	Chk Pass	Chk Pass	None	None
Value					
Range					

Sample Name: ICSAB-4954073 Acquired: 11/2/2018 9:59:45 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	549.83	.47549	-.00151	.15193	.94755
Stddev	.64	.00240	.00036	.01485	.00158
%RSD	.11612	.50447	24.101	9.7728	.16635

#1	549.38	.47718	-.00177	.16243	.94866
#2	550.28	.47379	-.00125	.14143	.94643

Check ?	Chk Pass	Chk Pass	None	None	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05439	1.0088	.57313	.04036	.98155
Stddev	.00070	.0054	.00271	.00187	.00279
%RSD	1.2808	.53378	.47275	4.6347	.28408

#1	.05390	1.0126	.57504	.03904	.97958
#2	.05488	1.0050	.57121	.04168	.98352

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00096	.48824	.00084	.09675	.50201
Stddev	.00052	.00031	.00031	.00011	.00005
%RSD	54.219	.06435	36.867	.11697	.01046

#1	-.00059	.48802	.00062	.09683	.50198
#2	-.00133	.48847	.00106	.09667	.50205

Check ?	None	None	None	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ICSAB-4954073 Acquired: 11/2/2018 9:59:45 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.96625**
 Stddev .00261
 %RSD .27034

#1 .96440
 #2 .96809

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2768.5	3012.0	24083.	3004.6
Stddev	3.5	5.4	75.	.1
%RSD	.12503	.17802	.30938	.00390
#1	2766.0	3008.2	24030.	3004.5
#2	2770.9	3015.8	24136.	3004.7

Sample Name: ICEX1 Acquired: 11/2/2018 10:03:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00315	.09841	4.9693	-.00137	.00039
Stddev	.00074	.02297	.0135	.00007	.00000
%RSD	23.357	23.336	.27249	5.0113	.47688

#1	.00367	.08217	4.9789	-.00132	.00039
#2	.00263	.11465	4.9597	-.00142	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.01928	.00025	.0046	.00039
Stddev	.00005	.00031	.00012	.0011	.00003
%RSD	12.319	1.6033	49.371	23.76	8.6588

#1	.00040	.01907	.00034	.0053	.00037
#2	.00034	.01950	.00016	.0038	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00088	23.903	.00537	-.00738	.00103
Stddev	.00016	.034	.00206	.00915	.00104
%RSD	18.382	.14384	38.387	124.05	100.34

#1	-.00077	23.927	.00391	-.01385	.00030
#2	-.00100	23.879	.00683	-.00091	.00176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX1 Acquired: 11/2/2018 10:03:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00249	-.00018	.00009	-.03804	.00006
Stddev	.00268	.00005	.00022	.01032	.00018
%RSD	107.55	28.324	248.18	27.129	316.03

#1	.00060	-.00022	-.00007	-.04533	-.00007
#2	.00439	-.00015	.00025	-.03074	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00269	.00124	.00028	-.00341	-.04336
Stddev	.00002	.00065	.00140	.00061	.00841
%RSD	.57311	52.055	506.29	18.004	19.397

#1	.00270	.00078	.00127	-.00298	-.03741
#2	.00268	.00170	-.00071	-.00385	-.04931

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00013	-.00171	F -.02316	4.5764
Stddev	.00028	.00001	.00004	.00102	.0126
%RSD	145.22	10.528	2.4918	4.4195	.27505

#1	.00040	.00012	-.00174	-.02388	4.5675
#2	-.00001	.00014	-.00168	-.02243	4.5853

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				.02000	
Low Limit				-.02000	

Sample Name: ICEX1 Acquired: 11/2/2018 10:03:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00676**
Stddev .00046
%RSD 6.8653

#1 **.00643**
#2 **.00709**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.7	3262.5	25357.	3008.1
Stddev	.2	7.4	151.	6.2
%RSD	.00627	.22634	.59685	.20654

#1	3180.8	3257.2	25464.	3012.5
#2	3180.5	3267.7	25250.	3003.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.88%	102.01%	100.89%	99.726%
Range				

Sample Name: ICEX2 Acquired: 11/2/2018 10:07:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00153	.01135	.00297	.00426	.00007
Stddev	.00024	.03484	.00272	.00041	.00002
%RSD	15.698	306.88	91.492	9.7029	29.890

#1	-.00136	-.01328	.00105	.00456	.00006
#2	-.00170	.03599	.00489	.00397	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	.01037	.00027	.0115	.00088
Stddev	.00006	.00385	.00003	.0259	.00000
%RSD	25.038	37.093	9.6960	226.0	.27067

#1	-.00028	.01309	.00029	-.0068	.00088
#2	-.00020	.00765	.00025	.0297	.00088

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00079	F -.01452	-.00049	-.02864	9.7614
Stddev	.00000	.00030	.00345	.04002	.0072
%RSD	.51546	2.0537	698.35	139.72	.07351

#1	.00079	-.01473	.00195	-.00035	9.7563
#2	.00079	-.01431	-.00293	-.05694	9.7665

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.01000			
Low Limit		-.01000			

Sample Name: ICEx2 Acquired: 11/2/2018 10:07:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.02296	-.00029	-.00062	-.04346	.00458
Stddev	.00353	.00004	.00007	.00938	.00043
%RSD	15.368	12.311	11.060	21.580	9.4481

#1	-.02545	-.00032	-.00057	-.05009	.00428
#2	-.02046	-.00027	-.00066	-.03683	.00489

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00555	-.00189	.00023	-.00240	51.380
Stddev	.00076	.00108	.00107	.00220	.247
%RSD	13.614	57.052	474.21	91.945	.48077

#1	.00502	-.00113	.00098	-.00084	51.205
#2	.00609	-.00266	-.00053	-.00395	51.554

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	.00008	19.971	19.301	.00000
Stddev	.00056	.00005	.032	.006	.00044
%RSD	74.389	61.558	.15780	.02976	12260.

#1	-.00114	.00011	19.948	19.297	-.00031
#2	-.00035	.00004	19.993	19.305	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX2 Acquired: 11/2/2018 10:07:06 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00121**
 Stddev .00015
 %RSD 12.567

#1 **.00110**
 #2 **.00131**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3195.1	3239.8	25595.	3023.5
Stddev	2.8	7.1	107.	1.7
%RSD	.08786	.21984	.41961	.05573

#1	3193.1	3234.8	25671.	3024.7
#2	3197.1	3244.9	25519.	3022.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.35%	101.30%	101.83%	100.24%
Range				

Sample Name: ICEX3 Acquired: 11/2/2018 10:10:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	-.02882	.00421	.00002	.00006
Stddev	.00072	.00900	.00133	.00016	.00001
%RSD	85.131	31.231	31.586	769.25	7.8047

#1	-.00135	-.02246	.00515	-.00009	.00007
#2	-.00033	-.03519	.00327	.00013	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.01567	.00017	-.1969	.00027
Stddev	.00004	.00016	.00005	.0269	.00006
%RSD	36.677	1.0421	30.709	13.67	21.332

#1	-.00007	.01555	.00013	-.2159	.00023
#2	-.00013	.01578	.00021	-.1779	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .01014	-.00022	-.00735	-.00027	.00274
Stddev	.00055	.00017	.00527	.00986	.00141
%RSD	5.3901	79.902	71.692	3631.6	51.443

#1	.00976	-.00009	-.01108	-.00724	.00374
#2	.01053	-.00034	-.00363	.00670	.00174

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00400				
Low Limit	-.00400				

Sample Name: ICEX3 Acquired: 11/2/2018 10:10:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.07756	51.211	-.00266	-.04643	.00068
Stddev	.00374	.124	.00002	.00494	.00030
%RSD	4.8269	.24261	.88945	10.646	44.301

#1	.08021	51.299	-.00264	-.04293	.00047
#2	.07491	51.123	-.00267	-.04992	.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00541	99.059	-.00340	.00962	.05322
Stddev	.00055	.196	.00136	.00049	.00795
%RSD	10.177	.19781	40.027	5.1004	14.940

#1	.00580	99.198	-.00244	.00928	.04759
#2	.00502	98.921	-.00437	.00997	.05884

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00008	.00037	.01924	.00039
Stddev	.00048	.00001	.00028	.00098	.00085
%RSD	1837.1	6.7421	76.251	5.0776	215.80

#1	.00031	.00009	.00017	.01855	.00099
#2	-.00036	.00008	.00057	.01993	-.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX3 Acquired: 11/2/2018 10:10:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00342**
 Stddev .00037
 %RSD 10.744

#1 **.00316**
 #2 **.00368**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3212.0	3240.4	25307.	2998.1
Stddev	2.3	2.0	62.	18.4
%RSD	.07282	.06066	.24390	.61428

#1	3213.7	3239.0	25350.	3011.2
#2	3210.4	3241.8	25263.	2985.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.90%	101.32%	100.69%	99.397%
Range				

Sample Name: ICEx4 Acquired: 11/2/2018 10:14:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	-.06951	-.01136	-.00239	.00011
Stddev	.00067	.00128	.00043	.00026	.00002
%RSD	79.343	1.8402	3.8167	10.711	17.965

#1	-.00131	-.07041	-.01167	-.00221	.00009
#2	-.00037	-.06860	-.01106	-.00257	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.01075	-.00111	.0146	19.852
Stddev	.00024	.00078	.00022	.0274	.009
%RSD	82.216	7.2758	19.544	188.1	.04303

#1	-.00012	.01020	-.00127	-.0048	19.858
#2	-.00046	.01131	-.00096	.0340	19.846

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.314	.00250	.00266	.00299	-.00044
Stddev	.025	.00021	.00042	.04528	.00303
%RSD	.23779	8.5847	15.928	1515.6	692.40

#1	10.297	.00265	.00236	.03501	.00170
#2	10.332	.00235	.00296	-.02903	-.00258

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX4 Acquired: 11/2/2018 10:14:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00203	F .02212	-.00035	-.05166	10.228
Stddev	.00620	.00007	.00023	.00695	.000
%RSD	305.66	.29641	64.617	13.446	.00367

#1	-.00641	.02208	-.00051	-.05658	10.228
#2	.00236	.02217	-.00019	-.04675	10.227

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.00300			
Low Limit		-.00300			

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00316	.04597	.00092	.00105	-.12234
Stddev	.00037	.00052	.00077	.00019	.00099
%RSD	11.761	1.1409	83.693	18.187	.81247

#1	-.00290	.04560	.00147	.00118	-.12304
#2	-.00342	.04634	.00038	.00091	-.12164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00002	.00182	.00838	-.00059
Stddev	.00010	.00016	.00015	.00099	.00003
%RSD	37.482	748.05	8.4623	11.811	5.0943

#1	.00033	.00009	.00171	.00768	-.00061
#2	.00019	-.00013	.00193	.00908	-.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX4 Acquired: 11/2/2018 10:14:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00002
Stddev .00018
%RSD 979.04

#1 .00014
#2 -.00011

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3164.3	3115.4	24849.	2985.7
Stddev	4.0	2.4	25.	21.3
%RSD	.12774	.07550	.10087	.71426

#1	3161.4	3113.7	24867.	3000.8
#2	3167.2	3117.1	24831.	2970.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.35%	97.413%	98.867%	98.985%
Range				

Sample Name: ICEX5 Acquired: 11/2/2018 10:18:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	.03101	.00658	.00184	-.00002
Stddev	.00025	.05815	.00173	.00029	.00002
%RSD	51.304	187.54	26.286	15.634	72.261

#1	-.00068	.07213	.00536	.00204	-.00004
#2	-.00032	-.01011	.00781	.00164	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.01418	-.00005	-.0466	.00032
Stddev	.00022	.00434	.00011	.0210	.00003
%RSD	551.55	30.585	220.95	45.06	10.341

#1	-.00020	.01725	-.00013	-.0318	.00034
#2	.00012	.01111	.00003	-.0615	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .00485	-.00318	-.00187	.00169	-.00135
Stddev	.00004	.00077	.00009	.01514	.00101
%RSD	.75459	24.193	4.5696	895.47	74.793

#1	.00487	-.00372	-.00193	.01239	-.00064
#2	.00482	-.00263	-.00181	-.00901	-.00207

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.00400				
Low Limit	-.00400				

Sample Name: ICEX5 Acquired: 11/2/2018 10:18:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.03017	.00079	4.8338	-.04951	.00597
Stddev	.00152	.00006	.0147	.01118	.00013
%RSD	5.0339	7.0045	.30516	22.583	2.2439

#1	-.02909	.00083	4.8442	-.04160	.00607
#2	-.03124	.00075	4.8234	-.05741	.00588

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00090	-.01235	-.00530	-.00379	-.04516
Stddev	.00020	.00009	.00127	.00055	.00906
%RSD	22.099	.69282	23.994	14.463	20.061

#1	-.00076	-.01229	-.00619	-.00417	-.05157
#2	-.00104	-.01241	-.00440	-.00340	-.03875

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00001	.00244	.00228	.00163
Stddev	.00014	.00011	.00026	.00166	.00133
%RSD	55.494	2060.0	10.459	73.062	81.698

#1	.00034	-.00008	.00226	.00110	.00257
#2	.00015	.00009	.00262	.00345	.00069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICEX5 Acquired: 11/2/2018 10:18:13 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00155**
 Stddev .00038
 %RSD 24.383

#1 **.00128**
 #2 **.00181**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3150.0	3216.2	25067.	2973.3
Stddev	5.4	4.6	44.	7.0
%RSD	.17231	.14164	.17399	.23614

#1	3153.8	3219.4	25036.	2968.3
#2	3146.1	3213.0	25098.	2978.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.89%	100.57%	99.734%	98.573%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 10:21:55 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53172	24.874	.50768	.49423	.49855
Stddev	.00287	.002	.00279	.00125	.00133
%RSD	.53972	.00748	.55017	.25327	.26618

#1	.53375	24.875	.50966	.49335	.49948
#2	.52969	24.872	.50571	.49512	.49761

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50503	25.524	.50598	.0100	.49297
Stddev	.00056	.051	.00031	.0686	.00056
%RSD	.11128	.19921	.06096	686.1	.11390

#1	.50463	25.560	.50620	.0585	.49337
#2	.50543	25.488	.50576	-.0385	.49258

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50693	.50233	25.377	24.670	.48826
Stddev	.00157	.00216	.055	.017	.00009
%RSD	.30982	.42937	.21840	.07000	.01818

#1	.50804	.50386	25.338	24.658	.48820
#2	.50581	.50081	25.416	24.682	.48833

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 10:21:55 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.194	.52247	.51252	24.590	.49444
Stddev	.079	.00191	.00132	.031	.00094
%RSD	.31552	.36473	.25766	.12514	.19041

#1	25.250	.52382	.51158	24.611	.49510
#2	25.138	.52112	.51345	24.568	.49377

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49425	25.631	.49619	.50912	25.054
Stddev	.00086	.007	.00081	.00154	.019
%RSD	.17355	.02753	.16333	.30246	.07720

#1	.49365	25.636	.49562	.51021	25.067
#2	.49486	25.626	.49677	.50803	25.040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51252	.51423	.50521	.48947	.50458
Stddev	.00006	.00033	.00029	.00137	.00112
%RSD	.01104	.06503	.05837	.27921	.22264

#1	.51256	.51447	.50500	.48851	.50379
#2	.51248	.51400	.50542	.49044	.50538

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 10:21:55 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.51475**
Stddev .00155
%RSD .30092

#1 **.51366**
#2 **.51585**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3151.6	3167.4	25038.	2996.4
Stddev	4.7	2.3	116.	4.2
%RSD	.14867	.07387	.46311	.14167

#1	3148.3	3165.8	24956.	2999.4
#2	3154.9	3169.1	25120.	2993.4

Sample Name: ccb-4975309 Acquired: 11/2/2018 10:25:22 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00049	-.02487	.00265	-.00084	.00008
Stddev	.00031	.04225	.00077	.00024	.00002
%RSD	62.639	169.90	29.161	28.832	21.131

#1	-.00027	-.05474	.00210	-.00066	.00007
#2	-.00071	.00501	.00320	-.00101	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00125	.00018	.0229	.00002
Stddev	.00005	.00336	.00001	.0105	.00014
%RSD	35.811	269.10	5.1381	45.86	633.59

#1	.00011	.00113	.00018	.0155	-.00008
#2	.00019	-.00363	.00017	.0304	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00058	-.00132	-.03640	-.00058
Stddev	.00014	.00029	.00104	.03661	.00211
%RSD	53.032	50.724	78.492	100.58	364.32

#1	.00017	-.00037	-.00206	-.06229	.00091
#2	.00037	-.00078	-.00059	-.01051	-.00207

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 10:25:22 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00088	.00003	.00389	-.04843	.00017
Stddev	.00162	.00002	.00074	.00223	.00010
%RSD	185.11	60.753	19.120	4.6130	63.064

#1	.00202	.00005	.00336	-.05001	.00009
#2	-.00027	.00002	.00442	-.04685	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00072	-.00062	-.00121	-.03758
Stddev	.00117	.00040	.00229	.00120	.00100
%RSD	4384.8	55.507	369.16	99.256	2.6620

#1	-.00085	-.00044	-.00224	-.00036	-.03687
#2	.00080	-.00100	.00100	-.00206	-.03829

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00006	.00076	.00029	-.00084
Stddev	.00054	.00000	.00005	.00041	.00003
%RSD	401.40	5.4902	6.6691	141.11	3.7585

#1	.00052	-.00007	.00072	.00057	-.00086
#2	-.00025	-.00006	.00079	.00000	-.00081

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 10:25:22 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00011**
 Stddev .00047
 %RSD 419.26

#1 .00022
 #2 -.00044

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3165.1	3190.5	24729.	2969.4
Stddev	7.2	16.2	91.	11.6
%RSD	.22819	.50912	.36774	.38934
#1	3160.0	3179.1	24793.	2977.6
#2	3170.2	3202.0	24665.	2961.2

Sample Name: ccvl-4970377 Acquired: 11/2/2018 10:35:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00562	W .12942	.01675	.01809	.00208
Stddev	.00065	.06895	.00112	.00045	.00005
%RSD	11.567	53.274	6.6730	2.4845	2.5178

#1	.00608	.08066	.01596	.01777	.00204
#2	.00516	.17817	.01754	.01840	.00212

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value		.20000			
Range		-30.000%			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00217	.54356	.00205	-.0034	.00434
Stddev	.00012	.00150	.00000	.0155	.00006
%RSD	5.3204	.27506	.17414	455.3	1.4528

#1	.00209	.54250	.00205	-.0143	.00439
#2	.00225	.54462	.00205	.0075	.00430

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00376	.00810	.05057	.48132	.02948
Stddev	.00023	.00005	.00051	.01294	.00040
%RSD	6.0549	.56703	1.0032	2.6876	1.3657

#1	.00392	.00813	.05021	.49047	.02920
#2	.00360	.00806	.05093	.47218	.02977

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 10:35:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20478	.00309	.01003	.91817	.01048
Stddev	.00322	.00015	.00032	.00870	.00016
%RSD	1.5715	4.7930	3.1514	.94713	1.4844

#1	.20250	.00299	.00980	.92432	.01059
#2	.20705	.00320	.01025	.91202	.01037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00945	.19915	.01671	.02023	.51545
Stddev	.00048	.00158	.00110	.00116	.01392
%RSD	5.0864	.79165	6.5787	5.7505	2.7013

#1	.00979	.19803	.01593	.01941	.50560
#2	.00911	.20026	.01749	.02106	.52529

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01018	.00523	.00543	.02134	.00423
Stddev	.00006	.00019	.00036	.00127	.00056
%RSD	.57252	3.6765	6.5526	5.9337	13.218

#1	.01022	.00537	.00518	.02224	.00463
#2	.01013	.00510	.00569	.02045	.00384

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 10:35:39 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01123**
 Stddev .00035
 %RSD 3.1566

#1 **.01148**
 #2 **.01098**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3184.3	3195.2	25017.	2949.4
Stddev	3.4	6.8	43.	19.3
%RSD	.10671	.21243	.17117	.65527
#1	3186.7	3200.0	25047.	2963.1
#2	3181.9	3190.4	24986.	2935.7

Sample Name: mb 480-441218/1-a Acquired: 11/2/2018 10:39:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	-.03023	-.00029	-.00119	.00010
Stddev	.00072	.03250	.00180	.00003	.00003
%RSD	135.85	107.52	612.87	2.3868	27.249

#1	-.00103	-.00725	.00098	-.00121	.00008
#2	-.00002	-.05321	-.00156	-.00117	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.01415	-.00007	.0261	.00017
Stddev	.00008	.00352	.00008	.0202	.00010
%RSD	29.297	24.846	116.60	77.39	59.845

#1	.00032	.01166	-.00001	.0118	.00010
#2	.00021	.01663	-.00012	.0403	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00037	.00519	.00349	-.00308
Stddev	.00002	.00045	.00122	.00226	.00208
%RSD	20.965	121.96	23.546	64.793	67.788

#1	-.00008	-.00005	.00433	.00189	-.00160
#2	-.00011	-.00069	.00605	.00509	-.00455

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441218/1-a Acquired: 11/2/2018 10:39:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00893	.00042	-.00050	-.05630	.00027
Stddev	.00154	.00007	.00057	.00274	.00001
%RSD	17.295	16.013	113.03	4.8597	4.7832

#1	.01002	.00047	-.00090	-.05823	.00028
#2	.00784	.00038	-.00010	-.05436	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00149	.00233	-.00268	-.00388	-.02544
Stddev	.00035	.00134	.00020	.00134	.03141
%RSD	23.254	57.583	7.2874	34.448	123.46

#1	-.00124	.00138	-.00282	-.00482	-.04765
#2	-.00173	.00328	-.00254	-.00293	-.00323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.00011	.00035	.00164	-.00048
Stddev	.00057	.00010	.00076	.00131	.00003
%RSD	95.022	96.480	219.28	79.631	5.6595

#1	.00101	.00003	-.00019	.00257	-.00046
#2	.00020	.00018	.00089	.00072	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441218/1-a Acquired: 11/2/2018 10:39:21 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00248**
 Stddev .00051
 %RSD 20.495

#1 **.00212**
 #2 **.00284**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3170.7	3191.8	24952.	3024.5
Stddev	.9	4.1	58.	8.2
%RSD	.02881	.12799	.23282	.27041

#1	3171.3	3194.7	24911.	3030.3
#2	3170.0	3188.9	24993.	3018.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.56%	99.803%	99.277%	100.27%
Range				

Sample Name: lcs 480-441218/2-a Acquired: 11/2/2018 10:43:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04933	9.8107	.20992	.19187	.19150
Stddev	.00058	.0194	.00017	.00080	.00007
%RSD	1.1663	.19799	.08148	.41950	.03870

#1	.04892	9.7969	.20980	.19130	.19145
#2	.04973	9.8244	.21004	.19244	.19156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20843	10.388	.20749	.0117	.19620
Stddev	.00094	.009	.00015	.0793	.00022
%RSD	.45282	.08352	.07060	679.7	.10988

#1	.20776	10.382	.20759	-.0444	.19605
#2	.20910	10.394	.20739	.0677	.19636

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20702	.19562	10.376	9.4951	.18381
Stddev	.00106	.00061	.047	.0127	.00207
%RSD	.51004	.31156	.45065	.13410	1.1239

#1	.20627	.19605	10.409	9.5041	.18235
#2	.20776	.19519	10.343	9.4861	.18527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441218/2-a Acquired: 11/2/2018 10:43:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.097	.20717	.19789	9.3050	.20509
Stddev	.020	.00061	.00105	.0531	.00008
%RSD	.19678	.29374	.53225	.57019	.03841

#1	10.083	.20674	.19864	9.2675	.20514
#2	10.111	.20760	.19715	9.3425	.20503

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19719	9.9658	.20003	.19867	9.9506
Stddev	.00116	.0002	.00129	.00046	.0359
%RSD	.58948	.00174	.64553	.23232	.36055

#1	.19637	9.9656	.20094	.19900	9.9759
#2	.19801	9.9659	.19911	.19835	9.9252

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19974	.20013	.20417	.19456	.20500
Stddev	.00068	.00012	.00108	.00094	.00015
%RSD	.33971	.05774	.52826	.48536	.07470

#1	.19926	.20022	.20341	.19523	.20489
#2	.20022	.20005	.20493	.19389	.20511

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441218/2-a Acquired: 11/2/2018 10:43:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21874**
 Stddev .00016
 %RSD .07396

#1 **.21863**
 #2 **.21886**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3188.5	3167.7	24943.	3016.3
Stddev	1.5	3.2	98.	3.8
%RSD	.04698	.10114	.39293	.12434

#1	3189.6	3165.5	25012.	3018.9
#2	3187.4	3170.0	24873.	3013.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.14%	99.050%	99.239%	99.998%
Range				

Sample Name: 480-143635-d-1-b Acquired: 11/2/2018 10:46:35 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.02739	.00099	.03135	.02313
Stddev	.00044	.01533	.00091	.00024	.00003
%RSD	1268.6	55.962	91.645	.75412	.14234

#1	-.00027	-.01655	.00163	.03118	.02311
#2	.00034	-.03822	.00035	.03151	.02315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	47.587	.00022	-.0159	.00031
Stddev	.00003	.114	.00011	.0025	.00015
%RSD	23.960	.24029	52.875	15.47	48.404

#1	-.00014	47.668	.00030	-.0142	.00020
#2	-.00010	47.507	.00014	-.0177	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00091	.09942	2.9027	.00369
Stddev	.00046	.00023	.00147	.0195	.00072
%RSD	271.23	25.367	1.4826	.67266	19.560

#1	-.00016	.00108	.10046	2.8889	.00420
#2	.00050	.00075	.09838	2.9165	.00318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-d-1-b Acquired: 11/2/2018 10:46:35 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.261	.12152	.00077	57.924	.00100
Stddev	.087	.00044	.00030	.094	.00013
%RSD	.35914	.36009	38.497	.16189	13.333

#1	24.199	.12121	.00056	57.858	.00090
#2	24.323	.12183	.00098	57.991	.00109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	2.0744	-.00192	-.00395	3.0576
Stddev	.00277	.0031	.00045	.00251	.0444
%RSD	813.09	.14893	23.447	63.516	1.4530

#1	-.00162	2.0722	-.00160	-.00217	3.0262
#2	.00230	2.0766	-.00224	-.00572	3.0891

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	.10642	.00098	.00372	-.00041
Stddev	.00010	.00026	.00018	.00082	.00051
%RSD	15.319	.24324	18.129	21.995	126.12

#1	.00061	.10661	.00086	.00314	-.00077
#2	.00076	.10624	.00111	.00430	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-d-1-b Acquired: 11/2/2018 10:46:35 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00379**
 Stddev .00056
 %RSD 14.747

#1 **.00340**
 #2 **.00419**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3158.7	3153.4	25196.	2984.3
Stddev	4.6	5.9	106.	18.2
%RSD	.14522	.18805	.41924	.61015

#1	3162.0	3157.6	25270.	2971.4
#2	3155.5	3149.3	25121.	2997.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.17%	98.603%	100.25%	98.937%
Range				

Sample Name: 480-143635-d-2-b Acquired: 11/2/2018 10:50:14 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	.00968	.00353	.03805	.02508
Stddev	.00055	.01279	.00156	.00063	.00005
%RSD	75.300	132.19	44.085	1.6536	.19320

#1	-.00034	.00063	.00463	.03761	.02511
#2	-.00112	.01872	.00243	.03850	.02504

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	46.273	.00014	-.0025	.00025
Stddev	.00000	.062	.00001	.0336	.00001
%RSD	3.8765	.13444	10.001	1347.	3.5838

#1	-.00010	46.317	.00013	-.0262	.00025
#2	-.00011	46.229	.00015	.0212	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.00123	.18360	3.1036	.00349
Stddev	.00109	.00109	.00003	.0034	.00176
%RSD	686.72	88.832	.01581	.10779	50.239

#1	.00061	-.00046	.18362	3.1060	.00225
#2	-.00093	-.00201	.18358	3.1013	.00474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-d-2-b Acquired: 11/2/2018 10:50:14 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.267	.02924	.00093	69.786	.00118
Stddev	.043	.00005	.00019	.007	.00001
%RSD	.17792	.15558	20.616	.00979	1.0257

#1	24.237	.02921	.00106	69.781	.00117
#2	24.298	.02927	.00079	69.791	.00119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	3.3858	-.00227	-.00420	3.6242
Stddev	.00025	.0042	.00230	.00073	.0209
%RSD	1932.7	.12416	101.54	17.353	.57754

#1	.00016	3.3828	-.00390	-.00369	3.6094
#2	-.00019	3.3888	-.00064	-.00472	3.6390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.11571	.00128	.00215	-.00038
Stddev	.00058	.00011	.00016	.00065	.00033
%RSD	132.53	.09914	12.150	30.350	86.623

#1	.00003	.11579	.00139	.00261	-.00015
#2	.00085	.11563	.00117	.00169	-.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-d-2-b Acquired: 11/2/2018 10:50:14 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00602**
 Stddev .00010
 %RSD 1.6875

#1 .00595
 #2 .00609

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3146.0	3136.2	25259.	3003.2
Stddev	4.3	6.6	31.	16.4
%RSD	.13669	.21188	.12083	.54584

#1	3149.1	3140.9	25281.	2991.6
#2	3143.0	3131.5	25238.	3014.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.76%	98.064%	100.50%	99.563%
Range				

Sample Name: 480-143635-d-3-b Acquired: 11/2/2018 10:53:54 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00092	.00507	.00313	.03104	.02332
Stddev	.00049	.02445	.00097	.00024	.00006
%RSD	52.776	482.29	31.109	.76674	.25822

#1	-.00058	.02236	.00244	.03120	.02336
#2	-.00127	-.01222	.00381	.03087	.02328

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	47.965	.00008	-.0360	.00002
Stddev	.00010	.110	.00003	.0213	.00016
%RSD	97.154	.22961	33.095	59.29	1072.3

#1	.00003	48.043	.00006	-.0511	-.00010
#2	.00017	47.887	.00010	-.0209	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00054	.10062	2.8973	.00179
Stddev	.00012	.00003	.00139	.0685	.00166
%RSD	30.689	5.8976	1.3778	2.3653	92.984

#1	.00030	.00051	.09964	2.8488	.00296
#2	.00047	.00056	.10160	2.9458	.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-d-3-b Acquired: 11/2/2018 10:53:54 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.360	.12534	.00008	58.238	.00125
Stddev	.037	.00003	.00014	.139	.00031
%RSD	.15250	.02092	174.49	.23831	24.510

#1	24.386	.12532	-.00002	58.336	.00104
#2	24.334	.12535	.00018	58.140	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00160	2.0947	-.00206	-.00538	3.1071
Stddev	.00117	.0052	.00143	.00132	.0389
%RSD	73.119	.25036	69.556	24.606	1.2510

#1	.00077	2.0984	-.00307	-.00444	3.0796
#2	.00243	2.0910	-.00105	-.00632	3.1346

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.10804	.00073	.00323	-.00053
Stddev	.00065	.00028	.00044	.00059	.00007
%RSD	202.31	.25790	60.342	18.162	13.514

#1	-.00014	.10824	.00042	.00365	-.00048
#2	.00078	.10784	.00104	.00282	-.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143635-d-3-b Acquired: 11/2/2018 10:53:54 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00318**
 Stddev .00003
 %RSD 1.0044

#1 **.00316**
 #2 **.00321**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3147.7	3132.8	25103.	2994.2
Stddev	1.7	1.7	49.	2.3
%RSD	.05249	.05360	.19414	.07657

#1	3148.9	3131.6	25069.	2992.6
#2	3146.5	3134.0	25137.	2995.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.82%	97.958%	99.877%	99.267%
Range				

Sample Name: 480-143841-a-5-a Acquired: 11/2/2018 10:57:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00098	.25722	.02537	.00543	.16144
Stddev	.00038	.02742	.00138	.00028	.00003
%RSD	38.749	10.662	5.4262	5.1323	.01889

#1	.00071	.27661	.02634	.00563	.16142
#2	.00125	.23783	.02440	.00524	.16147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	213.91	.03180	.1024	.01606
Stddev	.00002	.10	.00021	.0030	.00014
%RSD	12.009	.04654	.65070	2.890	.88318

#1	.00017	213.98	.03166	.1045	.01616
#2	.00015	213.83	.03195	.1003	.01596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00099	.00706	5.1934	3.8084	.00104
Stddev	.00068	.00047	.0162	.0450	.00096
%RSD	68.724	6.6088	.31165	1.1806	91.776

#1	.00051	.00739	5.1819	3.7766	.00172
#2	.00147	.00673	5.2048	3.8402	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-5-a Acquired: 11/2/2018 10:57:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3994	5.8785	.01169	162.52	.00303
Stddev	.0030	.0020	.00006	.48	.00023
%RSD	.21529	.03477	.54824	.29784	7.7099

#1	1.4015	5.8799	.01173	162.18	.00287
#2	1.3972	5.8770	.01164	162.86	.00320

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00481	F 165.87	-.00413	-.00384	2.3066
Stddev	.00151	.40	.00175	.00124	.0074
%RSD	31.424	.24079	42.391	32.430	.32143

#1	.00587	165.59	-.00536	-.00472	2.3118
#2	.00374	166.15	-.00289	-.00296	2.3014

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.37660	.00344	.00448	-.00047
Stddev	.00015	.00151	.00039	.00041	.00067
%RSD	29.436	.40135	11.360	9.2350	142.17

#1	.00061	.37553	.00316	.00418	-.00094
#2	.00040	.37767	.00371	.00477	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-5-a Acquired: 11/2/2018 10:57:33 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.04202**
 Stddev .00070
 %RSD 1.6558

#1 **.04251**
 #2 **.04152**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3070.3	3102.9	25337.	2986.2
Stddev	1.1	8.2	7.	6.0
%RSD	.03651	.26379	.02726	.20228

#1	3071.1	3108.7	25342.	2990.5
#2	3069.5	3097.1	25332.	2981.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.311%	97.023%	100.81%	99.001%
Range				

Sample Name: 480-143841-a-6-a Acquired: 11/2/2018 11:01:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00254	2.7312	.21779	.00270	.54008
Stddev	.00007	.0231	.00252	.00017	.00112
%RSD	2.9429	.84536	1.1580	6.2941	.20810

#1	.00248	2.7148	.21957	.00258	.53929
#2	.00259	2.7475	.21601	.00282	.54088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	F 1246.3	3.5424	.1313	.01693
Stddev	.00006	1.1	.0007	.0255	.00001
%RSD	111.81	.08496	.02009	19.38	.05452

#1	.00001	1247.1	3.5429	.1133	.01692
#2	.00010	1245.6	3.5418	.1493	.01693

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00588	.03081	3.2031	4.5261	.01886
Stddev	.00008	.00022	.0098	.0065	.00057
%RSD	1.3183	.71225	.30502	.14251	2.9966

#1	.00593	.03097	3.1962	4.5306	.01926
#2	.00582	.03066	3.2100	4.5215	.01846

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-6-a Acquired: 11/2/2018 11:01:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.1821	13.711	.00594	4.9274	.00667
Stddev	.0205	.007	.00015	.0064	.00024
%RSD	.94183	.05373	2.5658	.13053	3.6245

#1	2.1675	13.717	.00605	4.9228	.00650
#2	2.1966	13.706	.00583	4.9319	.00684

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00610	F 1072.8	-.00310	.03498	6.1411
Stddev	.00114	.2	.00001	.00255	.0349
%RSD	18.717	.02323	.36916	7.2866	.56884

#1	.00529	1072.6	-.00309	.03317	6.1164
#2	.00691	1072.9	-.00310	.03678	6.1658

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.77098	.14422	.00603	.00582
Stddev	.00046	.00179	.00109	.00027	.00003
%RSD	133.13	.23264	.75438	4.5354	.56352

#1	-.00066	.76971	.14345	.00622	.00579
#2	-.00002	.77225	.14499	.00583	.00584

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-6-a Acquired: 11/2/2018 11:01:12 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.05437**
 Stddev .00026
 %RSD .47482

#1 **.05419**
 #2 **.05456**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2864.9	2950.3	24675.	2916.6
Stddev	2.8	1.7	88.	12.0
%RSD	.09657	.05713	.35756	.41160

#1	2866.8	2951.5	24738.	2925.1
#2	2862.9	2949.1	24613.	2908.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.667%	92.251%	98.176%	96.695%
Range				

Sample Name: 480-143841-a-6-a@5 Acquired: 11/2/2018 11:05:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00094	.49090	.04239	-.00064	.10227
Stddev	.00018	.03145	.00299	.00007	.00033
%RSD	18.698	6.4061	7.0603	11.082	.32489

#1	-.00107	.51314	.04027	-.00069	.10204
#2	-.00082	.46867	.04451	-.00059	.10251

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	256.03	.69003	.0312	.00357
Stddev	.00007	.21	.00086	.0393	.00008
%RSD	63.878	.08276	.12416	125.6	2.1520

#1	.00015	256.18	.68943	.0035	.00362
#2	.00006	255.88	.69064	.0590	.00352

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00100	.00536	.64963	.82299	.00034
Stddev	.00068	.00100	.00472	.00614	.00056
%RSD	67.581	18.613	.72665	.74628	164.02

#1	.00052	.00465	.65297	.82734	.00073
#2	.00148	.00607	.64629	.81865	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-6-a@5 Acquired: 11/2/2018 11:05:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.43645	2.8376	.00061	.89404	.00156
Stddev	.00094	.0063	.00010	.00303	.00010
%RSD	.21590	.22267	15.964	.33878	6.5646

#1	.43711	2.8331	.00054	.89618	.00163
#2	.43578	2.8421	.00068	.89190	.00148

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00077	F 235.44	-.00175	.00324	1.1849
Stddev	.00055	.41	.00016	.00089	.0415
%RSD	71.416	.17267	9.3072	27.584	3.5016

#1	.00116	235.15	-.00163	.00261	1.2142
#2	.00038	235.73	-.00187	.00388	1.1556

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.15268	.02921	.00470	.00087
Stddev	.00046	.00057	.00112	.00081	.00012
%RSD	223.45	.37194	3.8430	17.181	13.686

#1	.00053	.15228	.03001	.00527	.00095
#2	-.00012	.15309	.02842	.00413	.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-6-a@5 Acquired: 11/2/2018 11:05:00 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01145**
 Stddev .00023
 %RSD 2.0513

#1 **.01162**
 #2 **.01129**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3111.0	3090.5	25007.	2974.8
Stddev	2.0	5.7	14.	.1
%RSD	.06269	.18495	.05771	.00498

#1	3112.4	3094.5	25017.	2974.9
#2	3109.6	3086.5	24997.	2974.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.63%	96.635%	99.496%	98.623%
Range				

Sample Name: 480-143841-a-7-a Acquired: 11/2/2018 11:08:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.96931	.03434	.00228	.07516
Stddev	.00016	.05831	.00032	.00015	.00018
%RSD	68.264	6.0159	.93177	6.5335	.23795

#1	-.00012	.92808	.03457	.00239	.07529
#2	-.00034	1.0105	.03412	.00218	.07503

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	106.37	.00489	-.0289	.00543
Stddev	.00016	.28	.00007	.0080	.00002
%RSD	321.26	.26655	1.5069	27.74	.30068

#1	.00016	106.17	.00494	-.0345	.00544
#2	-.00006	106.57	.00484	-.0232	.00542

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02065	.01230	20.221	1.3708	-.00070
Stddev	.00066	.00001	.055	.0384	.00089
%RSD	3.2104	.05595	.27186	2.8002	127.86

#1	.02018	.01230	20.182	1.3436	-.00007
#2	.02112	.01231	20.260	1.3979	-.00133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-7-a Acquired: 11/2/2018 11:08:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.83004	.77612	.01382	11.869	.00732
Stddev	.00013	.00077	.00011	.030	.00024
%RSD	.01545	.09924	.83072	.25508	3.2143

#1	.83013	.77666	.01390	11.847	.00748
#2	.82995	.77557	.01374	11.890	.00715

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01408	F 110.51	-.00273	.00242	3.1504
Stddev	.00147	.15	.00035	.00078	.0239
%RSD	10.464	.13317	12.829	32.351	.75939

#1	.01304	110.61	-.00249	.00187	3.1335
#2	.01512	110.41	-.00298	.00298	3.1673

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.02567	.02372	.00308	.00151
Stddev	.00012	.00025	.00018	.00036	.00069
%RSD	14.696	.95901	.74771	11.617	45.665

#1	.00076	.02549	.02384	.00334	.00199
#2	.00094	.02584	.02359	.00283	.00102

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-7-a Acquired: 11/2/2018 11:08:38 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03616**
 Stddev .00072
 %RSD 1.9922

#1 **.03667**
 #2 **.03565**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3160.8	3122.3	25153.	3004.6
Stddev	3.0	1.2	13.	2.5
%RSD	.09337	.03902	.05341	.08404

#1	3162.8	3123.2	25144.	3006.4
#2	3158.7	3121.5	25163.	3002.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.24%	97.631%	100.08%	99.610%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 11:12:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53891	24.969	.51141	.49159	.50340
Stddev	.00145	.003	.00194	.00021	.00086
%RSD	.26940	.01116	.37921	.04223	.17082

#1	.53994	24.967	.51003	.49173	.50401
#2	.53789	24.971	.51278	.49144	.50279

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50609	25.930	.50929	.0391	.49517
Stddev	.00054	.082	.00011	.0066	.00080
%RSD	.10616	.31574	.02183	16.98	.16216

#1	.50571	25.988	.50937	.0344	.49574
#2	.50647	25.872	.50921	.0438	.49460

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50925	.50833	25.675	24.840	.49169
Stddev	.00099	.00123	.022	.058	.00283
%RSD	.19367	.24191	.08379	.23414	.57606

#1	.50995	.50920	25.690	24.799	.48969
#2	.50856	.50746	25.659	24.882	.49370

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 11:12:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.469	.52675	.49554	24.678	.49547
Stddev	.040	.00096	.00104	.006	.00104
%RSD	.15820	.18147	.20925	.02387	.21017

#1	25.497	.52743	.49627	24.674	.49621
#2	25.440	.52608	.49480	24.682	.49473

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49606	25.778	.49746	.50924	25.228
Stddev	.00249	.003	.00162	.00356	.039
%RSD	.50172	.01333	.32564	.69870	.15359

#1	.49782	25.776	.49632	.51176	25.255
#2	.49430	25.781	.49861	.50672	25.200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51736	.51991	.51085	.48837	.50756
Stddev	.00050	.00126	.00171	.00111	.00007
%RSD	.09705	.24152	.33537	.22725	.01466

#1	.51772	.51902	.51206	.48916	.50751
#2	.51701	.52079	.50964	.48759	.50762

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 11:12:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.51924**
Stddev .00140
%RSD .26950

#1 **.52023**
#2 **.51825**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3157.7	3151.7	24893.	2965.4
Stddev	3.7	1.8	98.	.1
%RSD	.11678	.05776	.39474	.00316
#1	3155.1	3150.5	24823.	2965.5
#2	3160.3	3153.0	24962.	2965.4

Sample Name: ccb-4975309 Acquired: 11/2/2018 11:15:46 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00102	-.05740	.00073	-.00121	.00005
Stddev	.00063	.00915	.00020	.00002	.00001
%RSD	61.835	15.941	27.362	1.6195	29.173

#1	-.00147	-.05093	.00059	-.00120	.00004
#2	-.00058	-.06387	.00087	-.00123	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.00254	.00008	.0453	.00015
Stddev	.00026	.00148	.00004	.0044	.00002
%RSD	18029.	58.290	44.470	9.725	14.601

#1	-.00019	.00359	.00011	.0422	.00014
#2	.00018	.00149	.00006	.0484	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00038	-.00245	.00012	-.02530	-.00047
Stddev	.00003	.00064	.00125	.06177	.00015
%RSD	8.2894	26.158	1080.4	244.13	32.652

#1	.00041	-.00291	.00100	-.06898	-.00057
#2	.00036	-.00200	-.00077	.01838	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 11:15:46 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00930	.00002	.00067	-.03396	-.00024
Stddev	.00493	.00002	.00010	.00573	.00020
%RSD	52.957	68.682	14.993	16.860	85.045

#1	.00582	.00001	.00060	-.02991	-.00038
#2	.01279	.00003	.00075	-.03801	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00122	.00113	-.00258	-.00042	-.03174
Stddev	.00051	.00138	.00005	.00209	.00167
%RSD	41.741	122.20	1.9516	498.70	5.2492

#1	.00158	.00015	-.00255	-.00190	-.03056
#2	.00086	.00210	-.00262	.00106	-.03292

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.00003	.00056	-.00020	-.00060
Stddev	.00010	.00003	.00021	.00127	.00019
%RSD	32.307	101.97	37.500	630.34	32.087

#1	.00040	-.00005	.00041	.00069	-.00074
#2	.00025	-.00001	.00070	-.00110	-.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 11:15:46 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00018**
 Stddev .00022
 %RSD 127.90

#1 **.00002**
 #2 **.00033**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3156.9	3160.0	24669.	2928.9
Stddev	8.6	5.0	39.	20.7
%RSD	.27191	.15821	.15817	.70656
#1	3150.8	3156.5	24697.	2943.5
#2	3163.0	3163.5	24642.	2914.2

Sample Name: ccvl-4970377 Acquired: 11/2/2018 11:19:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00562	W .13548	.01653	.01811	.00209
Stddev	.00031	.02973	.00080	.00010	.00003
%RSD	5.4477	21.947	4.8404	.52673	1.5761

#1	.00584	.11445	.01596	.01804	.00207
#2	.00541	.15650	.01710	.01817	.00212

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value		.20000			
Range		-30.000%			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00210	.53130	.00207	.0100	.00423
Stddev	.00034	.00940	.00009	.0288	.00013
%RSD	16.254	1.7699	4.3196	288.5	3.1337

#1	.00235	.52465	.00214	-.0104	.00413
#2	.00186	.53795	.00201	.0303	.00432

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00416	.00845	.05166	.45630	.02929
Stddev	.00088	.00053	.00189	.02119	.00327
%RSD	21.096	6.2221	3.6641	4.6434	11.163

#1	.00354	.00808	.05299	.44132	.03160
#2	.00478	.00882	.05032	.47129	.02697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 11:19:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20867	.00316	.00956	.93988	.01081
Stddev	.00475	.00004	.00009	.00154	.00032
%RSD	2.2785	1.2537	.93356	.16423	2.9715

#1	.21203	.00313	.00950	.94097	.01059
#2	.20531	.00319	.00963	.93879	.01104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00979	.20363	.01870	.02269	.46401
Stddev	.00088	.00181	.00226	.00188	.00487
%RSD	9.0312	.89112	12.086	8.2736	1.0487

#1	.00917	.20234	.01710	.02402	.46056
#2	.01042	.20491	.02029	.02136	.46745

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01006	.00509	.00538	.02118	.00444
Stddev	.00083	.00013	.00091	.00042	.00032
%RSD	8.2203	2.5654	16.996	1.9641	7.1723

#1	.01064	.00518	.00474	.02089	.00466
#2	.00947	.00500	.00603	.02147	.00421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 11:19:30 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01065**
 Stddev .00021
 %RSD 1.9378

#1 **.01079**
 #2 **.01050**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3165.0	3162.7	24811.	2968.1
Stddev	2.3	2.8	53.	9.0
%RSD	.07229	.08872	.21205	.30267
#1	3166.6	3164.7	24774.	2974.5
#2	3163.4	3160.7	24849.	2961.8

Sample Name: 480-143841-a-8-a Acquired: 11/2/2018 11:23:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	3.9916	.01175	.00315	.08657
Stddev	.00132	.0207	.00059	.00006	.00033
%RSD	338.71	.51729	4.9812	2.0306	.38246

#1	-0.00055	3.9770	.01134	.00320	.08634
#2	.00133	4.0062	.01216	.00311	.08681

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00071	349.16	.01342	.9079	.20253
Stddev	.00017	.45	.00019	.0017	.00019
%RSD	24.056	.13016	1.4038	.1848	.09565

#1	.00059	349.48	.01329	.9068	.20240
#2	.00083	348.84	.01355	.9091	.20267

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00662	.04026	38.140	4.2877	.00517
Stddev	.00018	.00084	.107	.0465	.00282
%RSD	2.6444	2.0969	.27986	1.0841	54.547

#1	.00650	.03967	38.216	4.3205	.00716
#2	.00675	.04086	38.065	4.2548	.00318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-8-a Acquired: 11/2/2018 11:23:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mn2576-2	Mo2020	Na8183
Line	279.079 {121}2	257.610 {131}	257.610 {131}2	202.030 {467}	818.326 { 41}
IS Ref	(Y_3600)	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3748	14.905	15.302	-.00056	51.068
Stddev	.0102	.018	.045	.00007	.038
%RSD	.74289	.12322	.29616	12.751	.07484

#1	1.3676	14.893	15.270	-.00061	51.095
#2	1.3820	14.918	15.334	-.00051	51.041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Ni2316	Pb2203	S_1820	Sb2068	Se1960
Line	231.604 {446}	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}
IS Ref	(In2306)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00586	.01672	F 362.02	-.00583	.00139
Stddev	.00012	.00198	.21	.00164	.00160
%RSD	2.0902	11.816	.05924	28.158	115.04

#1	.00595	.01532	361.87	-.00699	.00026
#2	.00577	.01812	362.18	-.00467	.00252

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			90.000		
Low Limit			-.20000		

Elem	Si2881	Sn1899	Sr4077	Ti3349	Ti1908
Line	288.158 {117}2	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}
IS Ref	(Y_3774)	(In2306)	(Y_3774)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.6725	.00061	.58455	.14726	.00158
Stddev	.0071	.00023	.00171	.00047	.00140
%RSD	.07372	37.778	.29210	.31647	88.769

#1	9.6775	.00045	.58576	.14759	.00059
#2	9.6674	.00077	.58335	.14693	.00257

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-8-a Acquired: 11/2/2018 11:23:12 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	V_2924	Zn2062
Line	292.402 {115}	206.200 {163}
IS Ref	(Y_3600)	(Y_3600)
Units	ppm	ppm
Avg	.00325	.04408
Stddev	.00001	.00050
%RSD	.32792	1.1359

#1	.00326	.04373
#2	.00324	.04444

Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3038.3	3368.6	27493.	3255.3
Stddev	4.0	3.6	35.	9.1
%RSD	.13187	.10560	.12692	.27863

#1	3035.5	3366.1	27518.	3248.9
#2	3041.1	3371.2	27468.	3261.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.277%	105.33%	109.39%	107.92%
Range				

Sample Name: 480-143841-a-9-a Acquired: 11/2/2018 11:26:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	29.476	k .12302	.01846	.12081
Stddev	.00031	.115	.00128	.00012	.00009
%RSD	135.57	.39001	1.0425	.65838	.07067

#1	.00001	29.395	k .12211	.01854	.12087
#2	.00045	29.558	k .12392	.01837	.12075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00181	292.69	k .00972	.3581	k .01409
Stddev	.00002	1.64	.00004	.0323	.00006
%RSD	.93790	.55863	.43760	9.007	.44249

#1	.00182	291.54	k .00975	.3353	k .01414
#2	.00180	293.85	k .00969	.3809	k .01405

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	k .03806	.01089	44.185	6.3580	.02944
Stddev	.00023	.00119	.202	.0159	.00089
%RSD	.59392	10.921	.45660	.25030	3.0351

#1	k .03790	.01173	44.042	6.3468	.02881
#2	k .03822	.01005	44.327	6.3693	.03007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-9-a Acquired: 11/2/2018 11:26:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	k 9.9733	k 34.887	.02205	64.931	k .01508
Stddev	.0413	.003	.00036	.310	.00014
%RSD	.41392	.00783	1.6270	.47725	.89534

#1	k 9.9441	k 34.889	.02179	64.711	k .01518
#2	k 10.002	k 34.885	.02230	65.150	k .01499

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	k .03526	F 262.10	k -.00568	.00696	k 30.783
Stddev	.00024	.03	.00050	.00092	.065
%RSD	.69154	.01045	8.8624	13.173	.21022

#1	k .03509	262.12	k -.00533	.00631	k 30.737
#2	k .03543	262.08	k -.00604	.00761	k 30.828

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00127	.70844	k 1.1563	k .01322	k .03782
Stddev	.00010	.00130	.0008	.00003	.00024
%RSD	7.5988	.18381	.06501	.25658	.62422

#1	.00134	.70752	k 1.1558	k .01325	k .03765
#2	.00121	.70936	k 1.1568	k .01320	k .03799

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-9-a Acquired: 11/2/2018 11:26:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **k .07498**
 Stddev .00034
 %RSD .45207

#1 **k .07474**
 #2 **k .07522**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3029.3	3350.7	27362.	3311.8
Stddev	2.9	3.1	29.	16.2
%RSD	.09636	.09149	.10559	.48809

#1	3031.4	3352.9	27382.	3323.3
#2	3027.2	3348.6	27341.	3300.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.986%	104.77%	108.86%	109.80%
Range				

Sample Name: 480-143841-a-11-a Acquired: 11/2/2018 11:30:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00096	.32555	.00669	.00145	.03335
Stddev	.00028	.00451	.00023	.00043	.00003
%RSD	29.212	1.3847	3.4236	29.692	.10196

#1	-.00076	.32873	.00653	.00176	.03338
#2	-.00116	.32236	.00685	.00115	.03333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	131.87	-.00010	-.0061	.00136
Stddev	.00009	.30	.00010	.0089	.00009
%RSD	74.576	.22380	103.63	145.7	6.5021

#1	.00018	131.66	-.00003	.0002	.00143
#2	.00006	132.08	-.00017	-.0123	.00130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00038	1.0677	.49614	.00078
Stddev	.00027	.00097	.0018	.06663	.00210
%RSD	356.41	254.82	.16959	13.430	269.77

#1	-.00027	.00030	1.0665	.44903	.00226
#2	.00012	-.00106	1.0690	.54326	-.00071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-11-a Acquired: 11/2/2018 11:30:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.06128	.41889	.00738	35.117	.00089
Stddev	.00054	.00043	.00024	.044	.00011
%RSD	.88623	.10277	3.2489	.12497	11.994

#1	.06166	.41859	.00721	35.148	.00097
#2	.06089	.41920	.00754	35.086	.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00117	F 103.82	-.00341	.00016	.63495
Stddev	.00160	.06	.00082	.00098	.01112
%RSD	137.45	.05751	23.873	614.15	1.7512

#1	.00003	103.78	-.00399	-.00053	.64281
#2	.00230	103.86	-.00284	.00085	.62709

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.02897	.00054	.00321	-.00008
Stddev	.00053	.00039	.00098	.00032	.00081
%RSD	145.99	1.3428	180.08	10.032	1074.6

#1	-.00001	.02925	-.00015	.00298	-.00065
#2	.00073	.02870	.00123	.00343	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-11-a Acquired: 11/2/2018 11:30:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00374**
Stddev .00003
%RSD .75478

#1 **.00376**
#2 **.00372**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3149.9	3106.6	25121.	2991.3
Stddev	1.1	.8	13.	9.5
%RSD	.03554	.02653	.05106	.31666

#1	3150.7	3107.2	25112.	2998.0
#2	3149.1	3106.0	25130.	2984.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.89%	97.137%	99.949%	99.170%
Range				

Sample Name: 480-143899-c-1-a Acquired: 11/2/2018 11:34:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00112	-.01715	.00078	.02426	.05435
Stddev	.00062	.02233	.00099	.00028	.00002
%RSD	55.612	130.24	125.66	1.1397	.04385

#1	-.00156	-.00136	.00148	.02407	.05433
#2	-.00068	-.03294	.00009	.02446	.05436

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	53.104	-.00007	-.0081	.00018
Stddev	.00008	.047	.00010	.0231	.00003
%RSD	110.54	.08906	137.73	284.9	18.447

#1	.00013	53.071	-.00015	-.0244	.00016
#2	.00002	53.137	-.00000	.0082	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00000	.00338	1.6802	.00011
Stddev	.00045	.00014	.00944	.0192	.00042
%RSD	1365.0	3810.1	279.36	1.1410	389.64

#1	.00035	-.00010	-.00330	1.6667	-.00019
#2	-.00029	.00010	.01006	1.6938	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-a Acquired: 11/2/2018 11:34:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.0845	.00032	-.00053	19.090	.00088
Stddev	.0015	.00006	.00006	.035	.00033
%RSD	.01640	17.682	12.037	.18363	37.591

#1	9.0856	.00028	-.00057	19.115	.00111
#2	9.0834	.00036	-.00048	19.066	.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00079	3.8998	-.00248	-.00247	3.8844
Stddev	.00061	.0019	.00160	.00061	.0019
%RSD	77.397	.04864	64.562	24.535	.04752

#1	.00036	3.9011	-.00361	-.00204	3.8831
#2	.00123	3.8984	-.00135	-.00289	3.8857

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.09604	.00019	.00329	-.00099
Stddev	.00009	.00030	.00040	.00095	.00005
%RSD	19.387	.31633	207.97	28.934	5.3936

#1	.00038	.09626	-.00009	.00262	-.00095
#2	.00050	.09583	.00048	.00396	-.00103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-a Acquired: 11/2/2018 11:34:17 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00262**
 Stddev .00072
 %RSD 27.622

#1 **.00313**
 #2 **.00211**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3171.7	3133.6	25112.	3023.2
Stddev	3.6	.1	80.	18.5
%RSD	.11268	.00460	.31889	.61315

#1	3174.2	3133.7	25056.	3036.3
#2	3169.2	3133.5	25169.	3010.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.59%	97.982%	99.915%	100.23%
Range				

Sample Name: 480-143899-c-1-aSD@5 Acquired: 11/2/2018 11:37:57 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.06294	.00124	.00336	.01103
Stddev	.00064	.03145	.00085	.00036	.00003
%RSD	280.49	49.969	68.401	10.649	.28864

#1	-.00068	-.04070	.00183	.00311	.01105
#2	.00023	-.08518	.00064	.00361	.01100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	10.928	-.00013	-.0181	.00023
Stddev	.00011	.018	.00025	.0427	.00012
%RSD	223.94	.16269	197.68	235.5	52.864

#1	-.00003	10.940	-.00030	-.0484	.00014
#2	.00012	10.915	.00005	.0121	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	-.00136	.00413	.35973	-.00056
Stddev	.00011	.00011	.00104	.00819	.00051
%RSD	76.716	8.0475	25.147	2.2776	91.364

#1	.00022	-.00143	.00340	.35394	-.00020
#2	.00006	-.00128	.00487	.36553	-.00093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-aSD@5 Acquired: 11/2/2018 11:37:57 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.8166	.00009	-.00110	3.7795	.00027
Stddev	.0055	.00010	.00007	.0027	.00004
%RSD	.30476	105.38	6.3581	.07127	15.008

#1	1.8205	.00017	-.00115	3.7814	.00024
#2	1.8126	.00002	-.00105	3.7776	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.77927	-.00191	-.00441	.77160
Stddev	.00047	.00347	.00036	.00232	.03314
%RSD	592.94	.44571	18.908	52.714	4.2954

#1	-.00026	.77681	-.00217	-.00605	.74816
#2	.00042	.78172	-.00166	-.00276	.79503

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.01923	.00022	.00158	-.00079
Stddev	.00020	.00006	.00088	.00073	.00052
%RSD	61.736	.33280	408.95	46.044	65.356

#1	.00018	.01918	-.00041	.00210	-.00115
#2	.00046	.01927	.00084	.00107	-.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-aSD@5 Acquired: 11/2/2018 11:37:57 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00018**
 Stddev .00016
 %RSD 91.591

#1 **.00006**
 #2 **.00029**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.2	3159.5	24944.	3006.3
Stddev	3.1	2.0	69.	25.1
%RSD	.09603	.06366	.27804	.83557

#1	3182.3	3160.9	24895.	2988.6
#2	3178.0	3158.1	24993.	3024.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.87%	98.792%	99.243%	99.669%
Range				

Sample Name: 480-143899-c-1-aPDS Acquired: 11/2/2018 11:41:39 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05100	10.131	.20882	.22670	.25475
Stddev	.00010	.056	.00136	.00109	.00003
%RSD	.18884	.55568	.64916	.48178	.01197

#1	.05093	10.091	.20786	.22593	.25477
#2	.05107	10.171	.20978	.22747	.25473

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20893	61.306	.20977	.0141	.19507
Stddev	.00023	.033	.00011	.0148	.00015
%RSD	.10992	.05303	.05389	104.6	.07496

#1	.20909	61.283	.20985	.0246	.19497
#2	.20877	61.329	.20969	.0037	.19517

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20401	.19846	10.297	11.688	.19804
Stddev	.00076	.00064	.021	.005	.00033
%RSD	.37176	.32207	.20299	.04390	.16487

#1	.20348	.19891	10.312	11.692	.19781
#2	.20455	.19800	10.282	11.684	.19827

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-aPDS Acquired: 11/2/2018 11:41:39 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.948	.20501	.19819	28.216	.20324
Stddev	.023	.00058	.00048	.064	.00000
%RSD	.12270	.28533	.24350	.22589	.00128

#1	18.932	.20460	.19854	28.170	.20324
#2	18.965	.20543	.19785	28.261	.20323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19902	14.306	.19058	.20128	14.098
Stddev	.00135	.017	.00136	.00016	.088
%RSD	.67755	.11557	.71466	.08052	.62112

#1	.19806	14.318	.19154	.20139	14.036
#2	.19997	14.294	.18962	.20116	14.160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20721	.29954	.20594	.19717	.20348
Stddev	.00001	.00038	.00444	.00027	.00072
%RSD	.00689	.12837	2.1575	.13790	.35589

#1	.20720	.29927	.20909	.19736	.20297
#2	.20722	.29981	.20280	.19697	.20399

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-aPDS Acquired: 11/2/2018 11:41:39 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21486**
 Stddev .00005
 %RSD .02412

#1 **.21482**
 #2 **.21490**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3136.3	3110.8	24861.	3026.3
Stddev	6.4	4.7	78.	4.9
%RSD	.20436	.15010	.31446	.16079

#1	3140.8	3114.1	24916.	3029.8
#2	3131.7	3107.5	24806.	3022.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.45%	97.271%	98.915%	100.33%
Range				

Sample Name: 480-143899-c-1-b.ms Acquired: 11/2/2018 11:45:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04967	9.9724	.20677	.22163	.25164
Stddev	.00097	.0058	.00164	.00096	.00003
%RSD	1.9453	.05780	.79515	.43523	.01146

#1	.04899	9.9765	.20561	.22231	.25162
#2	.05035	9.9683	.20794	.22095	.25166

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20641	62.299	.20581	-.0551	.19078
Stddev	.00046	.002	.00001	.0077	.00047
%RSD	.22194	.00291	.00711	14.06	.24832

#1	.20674	62.298	.20582	-.0496	.19112
#2	.20609	62.300	.20580	-.0606	.19045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20011	.19512	10.087	11.544	.19495
Stddev	.00089	.00011	.033	.043	.00162
%RSD	.44591	.05438	.32759	.37535	.82974

#1	.20074	.19504	10.063	11.575	.19610
#2	.19948	.19519	10.110	11.514	.19381

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-b ms Acquired: 11/2/2018 11:45:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.966	.20143	.19463	28.623	.19832
Stddev	.011	.00056	.00044	.048	.00038
%RSD	.05809	.27976	.22805	.16853	.19189

#1	18.958	.20104	.19494	28.657	.19859
#2	18.974	.20183	.19432	28.589	.19805

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19412	14.128	.19844	.19659	13.815
Stddev	.00191	.020	.00027	.00065	.031
%RSD	.98640	.14415	.13373	.32857	.22178

#1	.19547	14.142	.19862	.19613	13.793
#2	.19276	14.114	.19825	.19705	13.836

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20193	.29726	.20054	.19217	.19941
Stddev	.00139	.00033	.00026	.00024	.00163
%RSD	.68768	.10955	.12939	.12435	.81770

#1	.20291	.29703	.20036	.19234	.20056
#2	.20095	.29749	.20072	.19200	.19826

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-b ms Acquired: 11/2/2018 11:45:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.21087**
Stddev .00095
%RSD .45255

#1 **.21020**
#2 **.21155**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3131.3	3101.3	24778.	3022.9
Stddev	2.9	.7	36.	3.4
%RSD	.09190	.02140	.14338	.11098

#1	3129.3	3100.9	24804.	3025.3
#2	3133.3	3101.8	24753.	3020.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.28%	96.974%	98.586%	100.22%
Range				

Sample Name: 480-143899-c-1-c msd Acquired: 11/2/2018 11:48:41 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04819	10.093	.20706	.22303	.25626
Stddev	.00009	.088	.00023	.00007	.00025
%RSD	.19114	.87528	.11021	.02990	.09715

#1	.04826	10.031	.20722	.22308	.25608
#2	.04813	10.156	.20690	.22299	.25644

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20482	63.574	.20644	-.0310	.19082
Stddev	.00012	.053	.00015	.0190	.00018
%RSD	.05818	.08388	.07388	61.33	.09414

#1	.20474	63.536	.20633	-.0445	.19069
#2	.20490	63.612	.20655	-.0176	.19094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20050	.19699	10.078	11.604	.19298
Stddev	.00131	.00080	.023	.042	.00231
%RSD	.65112	.40380	.22812	.36435	1.1989

#1	.20143	.19643	10.062	11.574	.19134
#2	.19958	.19756	10.094	11.634	.19461

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-c msd Acquired: 11/2/2018 11:48:41 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	19.332	.20200	.19510	29.031	.19818
Stddev	.001	.00045	.00049	.081	.00020
%RSD	.00659	.22260	.25283	.28061	.09927

#1	19.331	.20169	.19545	28.974	.19832
#2	19.333	.20232	.19475	29.089	.19804

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19377	14.198	.19823	.19799	13.880
Stddev	.00184	.003	.00251	.00067	.037
%RSD	.94870	.01980	1.2653	.33987	.26498

#1	.19507	14.196	.20000	.19751	13.854
#2	.19247	14.199	.19646	.19846	13.906

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20196	.30008	.20044	.19350	.19999
Stddev	.00005	.00099	.00168	.00072	.00041
%RSD	.02653	.33007	.83605	.37118	.20399

#1	.20200	.29938	.19926	.19300	.19970
#2	.20192	.30078	.20163	.19401	.20027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-1-c msd Acquired: 11/2/2018 11:48:41 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21036**
 Stddev .00037
 %RSD .17517

#1 **.21010**
 #2 **.21062**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3137.9	3103.1	24736.	3020.8
Stddev	1.2	.4	22.	5.8
%RSD	.03777	.01391	.08715	.19069

#1	3138.7	3103.4	24720.	3024.9
#2	3137.0	3102.8	24751.	3016.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.50%	97.030%	98.415%	100.15%
Range				

Sample Name: 480-143899-c-2-a Acquired: 11/2/2018 11:52:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	-.03283	.00242	.02943	.05231
Stddev	.00037	.00715	.00201	.00019	.00018
%RSD	35.070	21.782	82.725	.62947	.35245

#1	-.00080	-.02777	.00101	.02956	.05244
#2	-.00133	-.03789	.00384	.02930	.05218

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	52.169	.00002	-.0320	.00015
Stddev	.00016	.270	.00006	.0722	.00009
%RSD	248.11	.51718	323.89	225.8	58.353

#1	.00017	52.360	-.00002	.0191	.00021
#2	-.00005	51.978	.00006	-.0830	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00046	.01633	1.4696	.00039
Stddev	.00008	.00003	.00397	.0407	.00123
%RSD	103.09	5.7042	24.321	2.7681	315.71

#1	.00013	-.00044	.01913	1.4408	.00126
#2	.00002	-.00048	.01352	1.4983	-.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-2-a Acquired: 11/2/2018 11:52:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.8898	.00057	-.00008	15.448	.00051
Stddev	.0126	.00001	.00016	.082	.00018
%RSD	.14218	1.7450	202.72	.53072	35.492

#1	8.8988	.00058	-.00019	15.506	.00064
#2	8.8809	.00057	.00003	15.390	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00095	3.9909	-.00260	-.00208	4.0937
Stddev	.00104	.0034	.00056	.00045	.0244
%RSD	108.50	.08636	21.534	21.486	.59522

#1	.00169	3.9934	-.00300	-.00240	4.1109
#2	.00022	3.9885	-.00221	-.00177	4.0765

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.09087	.00123	.00208	-.00065
Stddev	.00036	.00040	.00019	.00004	.00018
%RSD	317.89	.44368	15.080	1.9870	28.171

#1	-.00037	.09115	.00110	.00205	-.00078
#2	.00014	.09058	.00136	.00211	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-2-a Acquired: 11/2/2018 11:52:12 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00339**
 Stddev .00033
 %RSD 9.8154

#1 **.00315**
 #2 **.00362**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3163.2	3113.3	24806.	3037.4
Stddev	1.7	8.0	17.	27.6
%RSD	.05331	.25579	.06943	.90723

#1	3164.4	3118.9	24794.	3017.9
#2	3162.0	3107.6	24819.	3056.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.32%	97.347%	98.697%	100.70%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 11:55:54 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.54136	24.985	.51149	.49457	.50374
Stddev	.00013	.101	.00101	.00143	.00195
%RSD	.02439	.40574	.19722	.28976	.38682

#1	.54127	24.913	.51220	.49558	.50236
#2	.54146	25.057	.51077	.49355	.50512

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50396	25.826	.51286	.0117	.49585
Stddev	.00165	.127	.00024	.0598	.00116
%RSD	.32684	.49161	.04643	512.0	.23384

#1	.50280	25.736	.51302	.0540	.49503
#2	.50512	25.916	.51269	-.0306	.49667

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50812	.51168	25.737	24.649	.49154
Stddev	.00019	.00348	.100	.005	.00143
%RSD	.03829	.67982	.38790	.02090	.29180

#1	.50798	.50922	25.666	24.646	.49053
#2	.50826	.51414	25.808	24.653	.49256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 11:55:54 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.380	.52481	.49746	24.560	.49664
Stddev	.020	.00221	.00098	.000	.00150
%RSD	.07892	.42026	.19713	.00027	.30107

#1	25.366	.52325	.49816	24.559	.49559
#2	25.395	.52637	.49677	24.560	.49770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49734	26.007	.50282	.50793	25.434
Stddev	.00306	.051	.00112	.00181	.098
%RSD	.61453	.19436	.22195	.35563	.38357

#1	.49518	26.043	.50203	.50921	25.365
#2	.49950	25.971	.50361	.50665	25.503

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51733	.51895	.51132	.48763	.50482
Stddev	.00044	.00137	.00259	.00114	.00236
%RSD	.08450	.26392	.50562	.23480	.46738

#1	.51703	.51799	.50949	.48844	.50315
#2	.51764	.51992	.51314	.48682	.50648

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 11:55:54 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51344**
 Stddev .00127
 %RSD .24673

#1 **.51254**
 #2 **.51433**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3136.9	3120.3	24775.	2973.3
Stddev	4.5	3.5	40.	1.3
%RSD	.14258	.11183	.16241	.04464
#1	3140.1	3117.8	24803.	2972.3
#2	3133.7	3122.8	24746.	2974.2

Sample Name: ccb-4975309 Acquired: 11/2/2018 11:59:20 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00107	-.04951	.00175	-.00065	.00003
Stddev	.00055	.00229	.00234	.00006	.00005
%RSD	51.323	4.6222	133.64	8.7345	173.14

#1	-.00068	-.04789	.00010	-.00069	.00006
#2	-.00146	-.05113	.00341	-.00061	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00344	.00012	.0164	.00016
Stddev	.00008	.00160	.00012	.0139	.00005
%RSD	906.07	46.593	101.61	85.02	32.874

#1	.00007	-.00231	.00003	.0065	.00012
#2	-.00005	-.00458	.00021	.0263	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00116	.00080	-.03798	-.00090
Stddev	.00035	.00094	.00159	.09460	.00015
%RSD	561.67	80.842	199.25	249.06	16.917

#1	.00019	-.00050	.00192	-.10488	-.00101
#2	-.00031	-.00183	-.00033	.02891	-.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 11:59:20 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00214	-.00002	.00057	-.04599	.00031
Stddev	.00414	.00002	.00028	.01572	.00010
%RSD	193.34	97.873	48.827	34.181	30.938

#1	-.00079	-.00003	.00037	-.05711	.00024
#2	.00506	-.00001	.00076	-.03487	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00086	-.00044	-.00112	-.01857
Stddev	.00058	.00154	.00078	.00140	.01218
%RSD	544.83	178.29	176.27	124.65	65.605

#1	-.00031	.00023	.00011	-.00013	-.00996
#2	.00052	-.00195	-.00099	-.00211	-.02718

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00047	-.00011	.00052	.00131	-.00146
Stddev	.00038	.00002	.00100	.00028	.00014
%RSD	79.933	18.405	192.52	21.535	9.4943

#1	.00074	-.00009	.00123	.00151	-.00136
#2	.00020	-.00012	-.00019	.00111	-.00156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 11:59:20 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **-.00007**
Stddev .00029
%RSD 395.37

#1 **-.00027**
#2 **.00013**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.7	3116.2	24363.	2964.0
Stddev	2.1	1.3	20.	3.1
%RSD	.06656	.04312	.08113	.10453
#1	3137.2	3115.2	24349.	2961.8
#2	3140.1	3117.1	24377.	2966.2

Sample Name: ccvl-4970377 Acquired: 11/2/2018 12:03:04 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00555	.18310	.01751	.01826	.00206
Stddev	.00016	.02021	.00101	.00018	.00002
%RSD	2.8995	11.040	5.7610	1.0076	1.1672

#1	.00566	.19739	.01680	.01813	.00204
#2	.00543	.16881	.01823	.01839	.00208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00213	.53705	.00198	-.0184	.00423
Stddev	.00002	.00329	.00000	.0346	.00001
%RSD	1.0206	.61337	.07394	188.3	.17572

#1	.00215	.53473	.00198	-.0429	.00423
#2	.00211	.53938	.00198	.0061	.00422

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00383	.00883	.04925	.46601	.02816
Stddev	.00090	.00015	.00523	.00631	.00046
%RSD	23.619	1.6528	10.616	1.3550	1.6513

#1	.00447	.00893	.04555	.47047	.02783
#2	.00319	.00872	.05295	.46154	.02849

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 12:03:04 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20980	.00302	.00935	.93363	.01078
Stddev	.00016	.00008	.00038	.01014	.00007
%RSD	.07843	2.5345	4.0213	1.0861	.65089

#1	.20992	.00307	.00908	.94080	.01083
#2	.20969	.00296	.00961	.92646	.01073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01012	.20397	.01747	.01981	.48409
Stddev	.00034	.00112	.00032	.00114	.01085
%RSD	3.3953	.55143	1.8599	5.7644	2.2417

#1	.01036	.20318	.01770	.02061	.47641
#2	.00987	.20477	.01724	.01900	.49176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01052	.00536	.00552	.02275	.00458
Stddev	.00004	.00008	.00034	.00066	.00008
%RSD	.34611	1.4989	6.1557	2.8897	1.7084

#1	.01049	.00530	.00528	.02229	.00453
#2	.01054	.00542	.00576	.02321	.00464

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 12:03:04 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.01089**
Stddev .00048
%RSD 4.3992

#1 **.01056**
#2 **.01123**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3161.8	3153.5	24765.	2970.7
Stddev	3.0	3.9	18.	8.9
%RSD	.09372	.12354	.07147	.29905
#1	3159.7	3150.7	24777.	2964.4
#2	3163.9	3156.2	24752.	2977.0

Sample Name: 480-143899-c-3-a Acquired: 11/2/2018 12:06:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00109	-.03317	.00118	.05120	.06244
Stddev	.00049	.02077	.00065	.00031	.00036
%RSD	45.138	62.622	54.669	.60176	.57243

#1	-.00144	-.04786	.00072	.05099	.06219
#2	-.00074	-.01848	.00164	.05142	.06270

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	60.127	.00017	.0083	.00020
Stddev	.00013	.254	.00008	.0598	.00003
%RSD	1094.5	.42194	44.671	725.2	17.246

#1	.00008	59.947	.00012	-.0341	.00022
#2	-.00010	60.306	.00022	.0506	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00151	.00743	2.6775	.00197
Stddev	.00014	.00048	.00103	.0586	.00023
%RSD	104.08	31.831	13.878	2.1889	11.832

#1	-.00024	-.00117	.00816	2.7189	.00214
#2	-.00004	-.00185	.00670	2.6360	.00181

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-3-a Acquired: 11/2/2018 12:06:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.7187	.00020	-.00056	28.407	.00104
Stddev	.0064	.00008	.00022	.023	.00004
%RSD	.06555	40.137	40.271	.07960	4.2970

#1	9.7232	.00015	-.00072	28.391	.00107
#2	9.7142	.00026	-.00040	28.423	.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00087	4.6736	-.00274	-.00219	4.1801
Stddev	.00038	.0127	.00337	.00029	.0191
%RSD	43.794	.27173	123.19	13.206	.45657

#1	.00060	4.6826	-.00512	-.00239	4.1936
#2	.00114	4.6646	-.00035	-.00198	4.1666

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.11639	.00000	.00321	.00021
Stddev	.00031	.00026	.00077	.00065	.00035
%RSD	293.23	.22174	227280.	20.389	168.47

#1	.00011	.11621	.00055	.00275	-.00004
#2	-.00032	.11658	-.00054	.00367	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-3-a Acquired: 11/2/2018 12:06:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00311**
 Stddev .00037
 %RSD 11.752

#1 **.00286**
 #2 **.00337**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3156.8	3103.9	24890.	3019.8
Stddev	2.3	6.1	6.	16.3
%RSD	.07320	.19744	.02542	.53941

#1	3155.2	3099.5	24886.	3031.3
#2	3158.4	3108.2	24895.	3008.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.11%	97.053%	99.031%	100.11%
Range				

Sample Name: 480-143899-c-4-a Acquired: 11/2/2018 12:10:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	-.02807	.00271	.08068	.09179
Stddev	.00079	.00670	.00137	.00034	.00030
%RSD	345.58	23.862	50.484	.42351	.32355

#1	-.00033	-.02333	.00174	.08092	.09200
#2	.00078	-.03281	.00367	.08043	.09158

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	95.528	-.00008	-.0488	.00012
Stddev	.00010	.604	.00010	.0255	.00001
%RSD	96.686	.63260	122.92	52.34	11.533

#1	.00003	95.955	-.00001	-.0668	.00013
#2	.00017	95.100	-.00015	-.0307	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	-.00076	.04925	4.7071	.00146
Stddev	.00003	.00086	.00012	.0039	.00063
%RSD	4.9963	113.65	.24705	.08198	42.971

#1	.00060	-.00015	.04934	4.7044	.00101
#2	.00064	-.00137	.04917	4.7098	.00190

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-4-a Acquired: 11/2/2018 12:10:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.266	.00183	-.00024	5.8729	.00071
Stddev	.023	.00005	.00036	.0260	.00006
%RSD	.18471	2.5476	153.37	.44310	9.0822

#1	12.282	.00186	-.00049	5.8913	.00075
#2	12.250	.00180	.00002	5.8545	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00223	2.3534	-.00150	-.00582	8.2917
Stddev	.00089	.0046	.00034	.00108	.0060
%RSD	39.727	.19528	22.428	18.605	.07194

#1	.00160	2.3501	-.00174	-.00659	8.2959
#2	.00286	2.3566	-.00126	-.00506	8.2875

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.23707	.00086	.00317	-.00017
Stddev	.00004	.00097	.00036	.00107	.00032
%RSD	73.263	.40922	42.007	33.691	185.21

#1	-.00003	.23776	.00111	.00393	.00005
#2	-.00008	.23639	.00060	.00242	-.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-4-a Acquired: 11/2/2018 12:10:26 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00446**
 Stddev .00018
 %RSD 4.0168

#1 **.00433**
 #2 **.00458**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3139.7	3085.7	24809.	3011.7
Stddev	2.6	.3	3.	.6
%RSD	.08139	.00904	.01024	.02155

#1	3141.6	3085.9	24811.	3011.2
#2	3137.9	3085.5	24807.	3012.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.56%	96.484%	98.706%	99.845%
Range				

Sample Name: 480-143899-c-5-a Acquired: 11/2/2018 12:14:05 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	-.02562	.00218	.03013	.05403
Stddev	.00032	.03264	.00137	.00021	.00014
%RSD	30.058	127.36	62.817	.68156	.25622

#1	-.00083	-.00255	.00121	.02999	.05393
#2	-.00128	-.04870	.00315	.03028	.05413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	53.394	.00008	.0322	.00018
Stddev	.00013	.063	.00006	.0082	.00004
%RSD	196.68	.11789	72.873	25.51	23.878

#1	-.00015	53.439	.00004	.0264	.00015
#2	.00002	53.350	.00012	.0380	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00052	-.00068	.01761	1.4781	.00127
Stddev	.00054	.00056	.00016	.0243	.00119
%RSD	104.27	82.229	.91195	1.6464	93.719

#1	.00090	-.00108	.01772	1.4609	.00210
#2	.00014	-.00028	.01750	1.4953	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-5-a Acquired: 11/2/2018 12:14:05 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.1302	.00057	-.00050	15.880	.00072
Stddev	.0125	.00010	.00033	.050	.00041
%RSD	.13718	17.865	65.332	.31750	57.372

#1	9.1213	.00065	-.00027	15.915	.00102
#2	9.1390	.00050	-.00073	15.844	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00072	4.1055	-.00294	-.00218	4.2114
Stddev	.00053	.0042	.00028	.00146	.0220
%RSD	73.838	.10192	9.6917	66.896	.52199

#1	.00109	4.1085	-.00314	-.00115	4.2270
#2	.00034	4.1026	-.00274	-.00321	4.1959

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.09278	.00008	.00245	-.00044
Stddev	.00003	.00037	.00009	.00016	.00017
%RSD	23.449	.40214	116.07	6.6564	38.445

#1	-.00011	.09252	.00014	.00256	-.00032
#2	-.00015	.09305	.00001	.00233	-.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143899-c-5-a Acquired: 11/2/2018 12:14:05 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00383**
 Stddev .00002
 %RSD .59032

#1 **.00381**
 #2 **.00384**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.9	3099.5	24805.	3026.8
Stddev	.0	1.1	53.	19.5
%RSD	.00041	.03649	.21307	.64370

#1	3152.9	3100.3	24768.	3013.0
#2	3152.9	3098.7	24843.	3040.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.98%	96.917%	98.692%	100.35%
Range				

Sample Name: lcsd 480-441218/24-a Acquired: 11/2/2018 12:17:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04775	9.8819	.20520	.19328	.19325
Stddev	.00006	.0955	.00063	.00046	.00086
%RSD	.11980	.96648	.30669	.24047	.44632

#1	.04779	9.9494	.20564	.19361	.19264
#2	.04771	9.8143	.20475	.19295	.19386

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20229	10.168	.20448	-.0071	.19178
Stddev	.00017	.017	.00021	.0051	.00054
%RSD	.08423	.17023	.10258	71.86	.27940

#1	.20241	10.156	.20433	-.0107	.19216
#2	.20217	10.180	.20463	-.0035	.19140

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20118	.19178	10.170	9.5912	.18863
Stddev	.00014	.00101	.024	.0243	.00008
%RSD	.06814	.52758	.23591	.25332	.04422

#1	.20127	.19107	10.187	9.5741	.18857
#2	.20108	.19250	10.153	9.6084	.18869

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcsd 480-441218/24-a Acquired: 11/2/2018 12:17:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8507	.20205	.19295	9.3626	.20015
Stddev	.0401	.00037	.00034	.0109	.00012
%RSD	.40696	.18394	.17767	.11608	.05992

#1	9.8224	.20179	.19320	9.3703	.20023
#2	9.8791	.20232	.19271	9.3549	.20006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19300	10.044	.19557	.19155	9.9536
Stddev	.00035	.014	.00012	.00015	.0514
%RSD	.18385	.13523	.06188	.07574	.51653

#1	.19325	10.053	.19548	.19166	9.9173
#2	.19274	10.034	.19565	.19145	9.9900

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19911	.20189	.19992	.18938	.19731
Stddev	.00018	.00039	.00154	.00127	.00070
%RSD	.09104	.19448	.77113	.66867	.35293

#1	.19924	.20217	.19883	.18849	.19682
#2	.19899	.20161	.20101	.19028	.19780

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcsd 480-441218/24-a Acquired: 11/2/2018 12:17:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062
Line	206.200 {163}
IS Ref	(Y_3600)
Units	ppm
Avg	.21189
Stddev	.00016
%RSD	.07486

#1	.21200
#2	.21178

Check ?	Chk Pass
High Limit	
Low Limit	

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3167.5	3123.5	24781.	3029.3
Stddev	.3	.4	122.	5.4
%RSD	.01024	.01135	.49250	.17773

#1	3167.2	3123.3	24868.	3025.5
#2	3167.7	3123.8	24695.	3033.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.46%	97.667%	98.597%	100.43%
Range				

Sample Name: mb 480-441229/1-a Acquired: 11/2/2018 12:21:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	F -.05607	.00112	-.00071	.00007
Stddev	.00019	.02715	.00019	.00016	.00003
%RSD	23.136	48.418	17.217	22.709	41.914

#1	-.00067	-.03687	.00098	-.00060	.00005
#2	-.00093	-.07526	.00126	-.00082	.00009

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.20000			
Low Limit		-.04000			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00953	-.00016	.0025	.00032
Stddev	.00019	.00421	.00010	.0287	.00009
%RSD	1283.2	44.229	63.616	1147.	29.010

#1	.00012	.00655	-.00009	-.0178	.00039
#2	-.00015	.01251	-.00023	.0228	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00121	.01206	-.04949	-.00018
Stddev	.00036	.00039	.00363	.01925	.00229
%RSD	232.72	32.432	30.121	38.891	1282.6

#1	.00041	-.00093	.00949	-.03588	-.00180
#2	-.00010	-.00149	.01462	-.06309	.00144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441229/1-a Acquired: 11/2/2018 12:21:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00200	.00038	-.00013	-.04522	.00043
Stddev	.00031	.00008	.00021	.00023	.00075
%RSD	15.659	22.105	170.01	.49818	172.25

#1	.00222	.00044	-.00028	-.04538	-.00009
#2	.00178	.00032	.00003	-.04506	.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00221	-.00041	-.00290	-.04621
Stddev	.00024	.00012	.00207	.00050	.02225
%RSD	232.29	5.6134	508.38	17.089	48.146

#1	.00007	.00230	.00106	-.00325	-.03048
#2	-.00027	.00212	-.00187	-.00255	-.06194

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.00005	.00049	.00246	-.00080
Stddev	.00008	.00008	.00025	.00197	.00006
%RSD	38.761	148.21	51.963	79.886	7.4959

#1	-.00026	.00000	.00031	.00107	-.00084
#2	-.00015	-.00011	.00067	.00385	-.00076

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441229/1-a Acquired: 11/2/2018 12:21:17 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00203**
 Stddev .00057
 %RSD 27.870

#1 **.00243**
 #2 **.00163**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3141.1	3131.2	24846.	3032.7
Stddev	2.8	2.2	20.	7.4
%RSD	.08937	.07176	.08083	.24281

#1	3139.1	3132.8	24832.	3037.9
#2	3143.1	3129.7	24860.	3027.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.60%	97.909%	98.855%	100.54%
Range				

Sample Name: lcs 480-441229/2-a Acquired: 11/2/2018 12:24:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05005	10.093	.21142	.19878	.19843
Stddev	.00080	.051	.00161	.00034	.00069
%RSD	1.5998	.50950	.76251	.17072	.34677

#1	.05062	10.056	.21256	.19854	.19891
#2	.04949	10.129	.21028	.19902	.19794

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20779	10.486	.21127	.0539	.19692
Stddev	.00013	.011	.00034	.0069	.00027
%RSD	.06195	.10648	.16174	12.77	.13864

#1	.20788	10.494	.21103	.0587	.19673
#2	.20770	10.478	.21152	.0490	.19711

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20625	.19945	10.499	9.8169	.19116
Stddev	.00084	.00074	.025	.0061	.00175
%RSD	.40951	.37063	.24073	.06215	.91600

#1	.20684	.19997	10.481	9.8212	.19240
#2	.20565	.19893	10.517	9.8126	.18992

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441229/2-a Acquired: 11/2/2018 12:24:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.113	.20776	.19795	9.5574	.20460
Stddev	.002	.00078	.00050	.0072	.00107
%RSD	.02175	.37379	.25203	.07567	.52436

#1	10.114	.20831	.19831	9.5522	.20385
#2	10.111	.20721	.19760	9.5625	.20536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19880	10.368	.20160	.20094	10.152
Stddev	.00076	.011	.00090	.00088	.074
%RSD	.38376	.10727	.44861	.43656	.72721

#1	.19826	10.360	.20096	.20032	10.204
#2	.19934	10.376	.20224	.20156	10.100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20320	.20747	.20535	.19360	.20330
Stddev	.00044	.00017	.00018	.00060	.00137
%RSD	.21602	.08041	.08640	.31200	.67460

#1	.20289	.20759	.20523	.19318	.20427
#2	.20351	.20735	.20548	.19403	.20233

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441229/2-a Acquired: 11/2/2018 12:24:59 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21496**
 Stddev .00102
 %RSD .47673

#1 **.21423**
 #2 **.21568**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3164.7	3104.9	24759.	3031.1
Stddev	9.1	3.9	85.	1.9
%RSD	.28792	.12659	.34382	.06249

#1	3171.2	3107.6	24819.	3029.8
#2	3158.3	3102.1	24698.	3032.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.37%	97.084%	98.507%	100.49%
Range				

Sample Name: 480-143841-b-7-b Acquired: 11/2/2018 12:28:30 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	.11491	.00968	.00202	.05138
Stddev	.00111	.00781	.00076	.00019	.00006
%RSD	144.91	6.7998	7.8108	9.4573	.11200

#1	.00002	.10938	.01022	.00215	.05134
#2	-.00156	.12043	.00915	.00188	.05142

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	203.70	-.00019	.0017	.00096
Stddev	.00011	.49	.00017	.0202	.00000
%RSD	453.24	.24149	89.867	1153.	.25263

#1	.00010	204.05	-.00007	-.0125	.00096
#2	-.00005	203.35	-.00031	.0160	.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00094	-.00142	.95226	1.3253	-.00363
Stddev	.00021	.00005	.00945	.0328	.00008
%RSD	21.927	3.6797	.99285	2.4777	2.1078

#1	.00109	-.00139	.95894	1.3485	-.00368
#2	.00079	-.00146	.94557	1.3021	-.00358

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-7-b Acquired: 11/2/2018 12:28:30 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.65567	.50467	.00464	10.167	.00091
Stddev	.00455	.00110	.00021	.074	.00010
%RSD	.69326	.21882	4.4226	.73127	11.369

#1	.65889	.50545	.00450	10.220	.00084
#2	.65246	.50389	.00479	10.115	.00098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	F 180.45	-.00173	.00025	2.1940
Stddev	.00033	.11	.00068	.00124	.0142
%RSD	143.44	.06059	39.450	498.40	.64768

#1	.00046	180.38	-.00221	.00113	2.2040
#2	-.00000	180.53	-.00125	-.00063	2.1839

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.04760	.00007	.00246	-.00023
Stddev	.00044	.00040	.00003	.00015	.00079
%RSD	196.15	.84524	40.174	6.2857	345.79

#1	-.00053	.04789	.00009	.00257	.00033
#2	.00009	.04732	.00005	.00235	-.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-7-b Acquired: 11/2/2018 12:28:30 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00277**
 Stddev .00039
 %RSD 14.032

#1 **.00250**
 #2 **.00305**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3108.7	3048.6	24936.	2985.0
Stddev	1.5	3.0	123.	1.2
%RSD	.04948	.09845	.49519	.03894

#1	3109.8	3050.7	24849.	2985.9
#2	3107.6	3046.4	25023.	2984.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.55%	95.323%	99.212%	98.962%
Range				

Sample Name: 480-143841-b-8-b Acquired: 11/2/2018 12:32:10 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00105	.78912	.00900	.00278	.06946
Stddev	.00026	.00508	.00040	.00015	.00016
%RSD	24.872	.64328	4.4200	5.4330	.23028

#1	.00124	.78553	.00928	.00289	.06958
#2	.00087	.79271	.00872	.00268	.06935

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	349.34	.01249	.8594	.20487
Stddev	.00005	.67	.00004	.0247	.00025
%RSD	10.233	.19222	.33746	2.877	.12018

#1	.00045	349.82	.01246	.8419	.20504
#2	.00052	348.87	.01252	.8769	.20469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00306	.03106	35.080	3.5816	.00153
Stddev	.00036	.00064	.043	.0335	.00008
%RSD	11.667	2.0725	.12247	.93515	5.4123

#1	.00331	.03061	35.049	3.6053	.00147
#2	.00281	.03152	35.110	3.5579	.00159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-8-b Acquired: 11/2/2018 12:32:10 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.84971	15.996	-.00133	51.163	.00414
Stddev	.00551	.108	.00023	.024	.00009
%RSD	.64895	.67512	17.596	.04708	2.2095

#1	.84581	15.919	-.00117	51.146	.00421
#2	.85360	16.072	-.00150	51.180	.00408

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01165	F 367.24	-.00558	.00168	5.3831
Stddev	.00065	.09	.00087	.00005	.0530
%RSD	5.5513	.02324	15.635	2.7379	.98482

#1	.01119	367.18	-.00497	.00164	5.4206
#2	.01211	367.30	-.00620	.00171	5.3456

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.58855	F -.00529	.00133	-.00051
Stddev	.00041	.00113	.00020	.00059	.00051
%RSD	76.523	.19205	3.7551	43.970	99.370

#1	.00024	.58935	-.00543	.00092	-.00015
#2	.00082	.58775	-.00515	.00175	-.00087

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			18.000		
Low Limit			-.00500		

Sample Name: 480-143841-b-8-b Acquired: 11/2/2018 12:32:10 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03776**
 Stddev .00149
 %RSD 3.9407

#1 **.03670**
 #2 **.03881**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3027.8	3329.7	27325.	3251.1
Stddev	12.3	8.7	132.	10.8
%RSD	.40466	.25996	.48321	.33207

#1	3019.1	3323.6	27418.	3243.5
#2	3036.4	3335.8	27232.	3258.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.937%	104.11%	108.72%	107.78%
Range				

Sample Name: 480-143841-b-9-b Acquired: 11/2/2018 12:35:54 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.04055	.08036	.01826	.03192
Stddev	.00020	.01335	.00128	.00030	.00007
%RSD	98.732	32.916	1.5879	1.6578	.22103

#1	-.00035	.03111	.07946	.01805	.03197
#2	-.00006	.04999	.08126	.01848	.03187

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	334.12	-.00009	-.1338	.00188
Stddev	.00003	1.03	.00015	.0019	.00017
%RSD	51.111	.30800	161.91	1.436	9.1504

#1	.00004	334.85	.00001	-.1351	.00200
#2	.00009	333.39	-.00020	-.1324	.00176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00797	-.00141	13.824	3.6282	.00005
Stddev	.00049	.00008	.017	.0497	.00031
%RSD	6.1208	5.6551	.11986	1.3693	595.72

#1	.00831	-.00136	13.835	3.5931	.00027
#2	.00762	-.00147	13.812	3.6634	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-9-b Acquired: 11/2/2018 12:35:54 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.7589	38.182	.00455	72.624	.00072
Stddev	.0026	.006	.00039	.142	.00013
%RSD	.03899	.01571	8.6830	.19555	17.907

#1	6.7570	38.186	.00427	72.725	.00081
#2	6.7607	38.178	.00483	72.524	.00063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00488	F 294.55	-.00414	.00699	7.8370
Stddev	.00034	.20	.00114	.00083	.0120
%RSD	6.9650	.06938	27.533	11.856	.15345

#1	.00464	294.69	-.00333	.00757	7.8285
#2	.00512	294.40	-.00494	.00640	7.8455

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.78241	F -.01092	.00750	.00056
Stddev	.00104	.00089	.00079	.00055	.00026
%RSD	507.16	.11415	7.2146	7.3048	45.551

#1	.00094	.78304	-.01037	.00788	.00038
#2	-.00053	.78178	-.01148	.00711	.00074

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			18.000		
Low Limit			-.00500		

Sample Name: 480-143841-b-9-b Acquired: 11/2/2018 12:35:54 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00328**
 Stddev .00030
 %RSD 9.0425

#1 **.00307**
 #2 **.00349**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3034.5	3027.4	24858.	2947.8
Stddev	.8	.2	45.	1.6
%RSD	.02499	.00754	.18015	.05321

#1	3034.0	3027.2	24890.	2946.7
#2	3035.0	3027.6	24827.	2948.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.154%	94.662%	98.903%	97.729%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 12:39:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.54612	25.093	.51201	.49687	.50676
Stddev	.00214	.123	.00234	.00027	.00217
%RSD	.39258	.49111	.45759	.05349	.42888

#1	.54461	25.006	.51367	.49706	.50523
#2	.54764	25.180	.51036	.49668	.50830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50314	25.983	.51286	-.0223	.49520
Stddev	.00183	.044	.00038	.0051	.00022
%RSD	.36460	.17113	.07446	23.04	.04406

#1	.50184	26.015	.51313	-.0259	.49505
#2	.50444	25.952	.51259	-.0187	.49536

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50853	.51411	25.743	24.644	.48784
Stddev	.00080	.00122	.019	.016	.00122
%RSD	.15681	.23675	.07564	.06588	.25049

#1	.50909	.51325	25.757	24.633	.48698
#2	.50797	.51498	25.729	24.656	.48870

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 12:39:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.495	.52750	.49718	24.556	.49578
Stddev	.009	.00122	.00082	.083	.00140
%RSD	.03376	.23209	.16489	.33832	.28171

#1	25.501	.52663	.49776	24.497	.49479
#2	25.489	.52836	.49660	24.614	.49677

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49792	25.964	.50164	.50938	25.382
Stddev	.00020	.015	.00113	.00475	.077
%RSD	.03985	.05905	.22427	.93285	.30220

#1	.49806	25.975	.50244	.51274	25.328
#2	.49778	25.953	.50084	.50602	25.436

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51689	.51893	.51312	.48520	.50613
Stddev	.00015	.00034	.00124	.00392	.00023
%RSD	.02845	.06495	.24100	.80768	.04530

#1	.51700	.51869	.51225	.48797	.50597
#2	.51679	.51917	.51400	.48243	.50629

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 12:39:39 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51415**
 Stddev .00022
 %RSD .04262

#1 **.51430**
 #2 **.51399**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.7	3120.2	24771.	2975.1
Stddev	3.0	2.7	35.	.5
%RSD	.09664	.08711	.14218	.01534
#1	3140.9	3118.3	24746.	2974.8
#2	3136.6	3122.1	24796.	2975.5

Sample Name: ccb-4975309 Acquired: 11/2/2018 12:43:07 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	-.05867	.00218	-.00069	.00001
Stddev	.00077	.02052	.00208	.00027	.00002
%RSD	93.701	34.981	95.647	38.873	135.58

#1	-.00136	-.04416	.00070	-.00089	.00000
#2	-.00028	-.07318	.00365	-.00050	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00124	-.00004	.0452	.00018
Stddev	.00007	.00167	.00010	.0100	.00002
%RSD	994.55	134.36	265.73	22.14	11.627

#1	-.00004	-.00006	-.00010	.0381	.00020
#2	.00006	-.00242	.00003	.0522	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.00088	.00080	-.00880	.00063
Stddev	.00041	.00021	.00030	.05254	.00032
%RSD	464.21	24.386	37.061	597.19	49.930

#1	.00020	-.00103	.00059	-.04595	.00041
#2	-.00038	-.00072	.00101	.02836	.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 12:43:07 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00276	.00007	.00052	-.05075	.00032
Stddev	.00700	.00011	.00020	.00590	.00019
%RSD	253.14	151.53	38.503	11.625	58.988

#1	-.00218	-.00001	.00038	-.04658	.00045
#2	.00771	.00015	.00067	-.05492	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	-.00079	-.00174	-.00072	-.01138
Stddev	.00245	.00440	.00006	.00368	.00221
%RSD	580.83	557.27	3.4656	509.97	19.412

#1	.00131	-.00390	-.00178	-.00332	-.01294
#2	-.00215	.00232	-.00170	.00188	-.00982

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	-.00014	.00069	-.00044	-.00063
Stddev	.00046	.00008	.00030	.00178	.00065
%RSD	125.16	60.039	44.321	407.67	103.11

#1	.00070	-.00008	.00090	.00082	-.00108
#2	.00004	-.00020	.00047	-.00170	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 12:43:07 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00047**
 Stddev .00032
 %RSD 67.563

#1 **-.00069**
 #2 **-.00024**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3132.1	3116.5	24509.	2948.1
Stddev	3.7	3.5	71.	10.3
%RSD	.11724	.11281	.28821	.34986
#1	3129.5	3114.0	24460.	2940.8
#2	3134.7	3118.9	24559.	2955.4

Sample Name: ccvl-4970377 Acquired: 11/2/2018 12:46:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00553	.16582	.01663	.01833	.00208
Stddev	.00079	.00497	.00039	.00030	.00003
%RSD	14.213	2.9977	2.3152	1.6546	1.5762

#1	.00608	.16230	.01691	.01812	.00206
#2	.00497	.16933	.01636	.01854	.00210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00213	.57718	.00192	-.0097	.00425
Stddev	.00002	.00193	.00005	.0291	.00009
%RSD	.83156	.33379	2.3536	299.6	2.1538

#1	.00214	.57581	.00195	.0109	.00432
#2	.00212	.57854	.00188	-.0303	.00419

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00433	.00797	.05263	.46727	.02912
Stddev	.00044	.00083	.00014	.01297	.00224
%RSD	10.082	10.355	.27213	2.7758	7.6984

#1	.00464	.00855	.05253	.47644	.03071
#2	.00402	.00739	.05273	.45809	.02754

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 12:46:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20885	.00319	.00923	.92925	.01093
Stddev	.00512	.00006	.00024	.00427	.00039
%RSD	2.4530	1.7728	2.5805	.45973	3.5483

#1	.21247	.00323	.00906	.93227	.01066
#2	.20523	.00315	.00940	.92622	.01121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00998	.23200	.01744	.01893	.49696
Stddev	.00098	.00322	.00098	.00202	.05458
%RSD	9.8292	1.3890	5.6088	10.698	10.983

#1	.01067	.22972	.01675	.01749	.53555
#2	.00928	.23428	.01813	.02036	.45836

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01050	.00521	.00551	.02187	.00461
Stddev	.00012	.00002	.00057	.00118	.00007
%RSD	1.1627	.41325	10.420	5.3802	1.4241

#1	.01041	.00519	.00591	.02270	.00466
#2	.01058	.00522	.00510	.02104	.00457

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 12:46:50 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg F .02114
 Stddev .00022
 %RSD 1.0594

#1 .02129
 #2 .02098

Check ? Chk Fail
 Value .01000
 Range 50.000%

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3151.1	3141.0	24552.	2958.6
Stddev	.4	2.9	82.	40.9
%RSD	.01153	.09238	.33320	1.3820
#1	3151.4	3138.9	24494.	2929.7
#2	3150.8	3143.0	24610.	2987.5

Sample Name: 480-143841-b-10-a Acquired: 11/2/2018 12:50:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.01821	.00209	.01090	.01982
Stddev	.00016	.05824	.00181	.00039	.00003
%RSD	18.383	319.90	86.491	3.5312	.13471

#1	-.00074	-.02298	.00337	.01063	.01984
#2	-.00096	.05939	.00081	.01118	.01980

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	15.274	.00001	-.0227	.00170
Stddev	.00021	.014	.00023	.0363	.00004
%RSD	193.35	.09173	3218.2	159.8	2.3601

#1	-.00004	15.284	-.00015	-.0484	.00173
#2	.00026	15.264	.00017	.0030	.00167

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.00345	.08054	2.9456	.00091
Stddev	.00010	.00068	.00181	.0076	.00081
%RSD	124.28	19.613	2.2506	.25724	88.956

#1	.00015	.00393	.08182	2.9403	.00149
#2	.00001	.00297	.07926	2.9510	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-10-a Acquired: 11/2/2018 12:50:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.5209	.38296	-.00083	41.178	.00403
Stddev	.0064	.00026	.00009	.097	.00033
%RSD	.25236	.06826	11.330	.23626	8.1730

#1	2.5254	.38314	-.00090	41.247	.00426
#2	2.5164	.38277	-.00077	41.109	.00380

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00298	5.5102	-.00256	-.00334	6.2508
Stddev	.00150	.0039	.00074	.00140	.0151
%RSD	50.331	.07070	29.062	41.930	.24175

#1	.00404	5.5075	-.00204	-.00235	6.2401
#2	.00192	5.5130	-.00309	-.00433	6.2615

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.21263	.00011	.00349	-.00044
Stddev	.00023	.00096	.00012	.00017	.00024
%RSD	131.26	.45318	109.45	4.8902	53.958

#1	.00001	.21332	.00002	.00361	-.00060
#2	.00033	.21195	.00019	.00337	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-10-a Acquired: 11/2/2018 12:50:32 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01443**
 Stddev .00016
 %RSD 1.0939

#1 **.01431**
 #2 **.01454**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3179.9	3114.5	24945.	3000.3
Stddev	1.8	1.9	34.	3.3
%RSD	.05562	.06056	.13562	.11053

#1	3178.7	3115.8	24969.	3002.6
#2	3181.2	3113.2	24922.	2997.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.86%	97.386%	99.250%	99.467%
Range				

Sample Name: 143841-b-10-aSD@5 Acquired: 11/2/2018 12:54:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	-.03214	-.00064	.00087	.00407
Stddev	.00062	.00041	.00119	.00020	.00002
%RSD	72.894	1.2870	186.89	22.871	.39583

#1	-.00041	-.03244	-.00148	.00101	.00406
#2	-.00128	-.03185	.00020	.00073	.00408

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	3.1253	-.00008	-.0251	.00046
Stddev	.00011	.0122	.00011	.0081	.00007
%RSD	427.75	.39045	135.19	32.39	14.332

#1	-.00011	3.1166	-.00000	-.0194	.00041
#2	.00005	3.1339	-.00016	-.0308	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00021	-.00081	.01458	.59401	-.00015
Stddev	.00043	.00000	.00118	.04358	.00147
%RSD	203.30	.32792	8.1244	7.3370	995.40

#1	.00009	-.00081	.01374	.56319	-.00119
#2	-.00051	-.00080	.01542	.62483	.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-b-10-aSD@5 Acquired: 11/2/2018 12:54:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51059	.07950	-.00077	8.2218	.00131
Stddev	.00502	.00026	.00015	.0285	.00034
%RSD	.98344	.32204	20.133	.34603	25.703

#1	.51414	.07968	-.00088	8.2017	.00155
#2	.50703	.07932	-.00066	8.2419	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	1.1070	-.00246	-.00411	1.2550
Stddev	.00025	.0011	.00122	.00406	.0031
%RSD	75.665	.09759	49.694	98.743	.24319

#1	.00051	1.1078	-.00333	-.00698	1.2572
#2	.00015	1.1063	-.00160	-.00124	1.2528

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.04353	.00051	.00219	-.00056
Stddev	.00016	.00026	.00042	.00002	.00011
%RSD	66.322	.59032	82.127	.79980	20.107

#1	.00013	.04335	.00021	.00218	-.00048
#2	.00035	.04371	.00081	.00220	-.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-b-10-aSD@5 Acquired: 11/2/2018 12:54:12 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00364**
 Stddev .00081
 %RSD 22.405

#1 **.00306**
 #2 **.00421**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.1	3133.8	24667.	2997.3
Stddev	5.7	7.6	29.	20.3
%RSD	.17830	.24183	.11846	.67879

#1	3176.1	3128.5	24647.	3011.7
#2	3184.1	3139.2	24688.	2982.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.86%	97.990%	98.144%	99.370%
Range				

Sample Name: 480-143841-b-10-aPDS Acquired: 11/2/2018 12:57:53 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05149	10.074	.20300	.21089	.21887
Stddev	.00034	.030	.00040	.00001	.00021
%RSD	.65172	.29304	.19950	.00422	.09432

#1	.05173	10.095	.20329	.21088	.21901
#2	.05126	10.053	.20272	.21089	.21872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20207	24.480	.20507	-.0099	.19153
Stddev	.00028	.114	.00024	.0097	.00057
%RSD	.13844	.46665	.11608	97.38	.29657

#1	.20227	24.561	.20490	-.0031	.19193
#2	.20187	24.399	.20523	-.0167	.19113

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19800	.20035	10.079	12.774	.19671
Stddev	.00044	.00215	.042	.061	.00073
%RSD	.22190	1.0741	.41366	.47412	.37253

#1	.19768	.20187	10.108	12.817	.19723
#2	.19831	.19883	10.049	12.731	.19619

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-10-aPDS Acquired: 11/2/2018 12:57:53 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.337	.56888	.19226	49.709	.20072
Stddev	.016	.00046	.00022	.181	.00075
%RSD	.13336	.08114	.11373	.36466	.37451

#1	12.349	.56855	.19241	49.837	.20125
#2	12.326	.56921	.19210	49.580	.20019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19397	15.792	.18860	.19439	15.915
Stddev	.00046	.012	.00167	.00278	.035
%RSD	.23464	.07853	.88294	1.4302	.22205

#1	.19430	15.801	.18978	.19635	15.890
#2	.19365	15.783	.18742	.19242	15.940

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20744	.40863	.19812	.19096	.19895
Stddev	.00015	.00245	.00134	.00039	.00112
%RSD	.07081	.59941	.67638	.20543	.56081

#1	.20755	.41036	.19907	.19124	.19974
#2	.20734	.40690	.19717	.19069	.19816

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-10-aPDS Acquired: 11/2/2018 12:57:53 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21971**
 Stddev .00072
 %RSD .32977

#1 **.22022**
 #2 **.21920**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.5	3107.4	24829.	3038.0
Stddev	3.7	.9	155.	31.3
%RSD	.11609	.02767	.62271	1.0297

#1	3150.9	3106.7	24938.	3015.9
#2	3156.1	3108.0	24720.	3060.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.00%	97.162%	98.787%	100.72%
Range				

Sample Name: 480-143841-b-10-b ms Acquired: 11/2/2018 13:01:24 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05064	10.148	.21080	.21142	.22069
Stddev	.00024	.003	.00282	.00040	.00015
%RSD	.47580	.02626	1.3366	.18945	.06786

#1	.05081	10.146	.20881	.21114	.22058
#2	.05047	10.150	.21279	.21171	.22080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20951	25.422	.21235	-.0213	.19860
Stddev	.00073	.087	.00061	.0158	.00013
%RSD	.34879	.34298	.28960	74.12	.06305

#1	.20899	25.360	.21279	-.0101	.19869
#2	.21002	25.483	.21192	-.0324	.19851

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20423	.20826	10.442	12.993	.19883
Stddev	.00085	.00165	.048	.087	.00125
%RSD	.41718	.79086	.45838	.67217	.62945

#1	.20484	.20710	10.408	12.931	.19794
#2	.20363	.20943	10.476	13.055	.19971

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-10-b ms Acquired: 11/2/2018 13:01:24 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.791	.59101	.20043	51.809	.20800
Stddev	.050	.00122	.00016	.326	.00026
%RSD	.38830	.20694	.07740	.62829	.12532

#1	12.826	.59187	.20054	51.579	.20818
#2	12.756	.59014	.20032	52.039	.20781

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20165	15.854	.20306	.20169	16.418
Stddev	.00041	.025	.00117	.00202	.046
%RSD	.20096	.15467	.57576	.99988	.27818

#1	.20194	15.872	.20223	.20026	16.385
#2	.20137	15.837	.20389	.20311	16.450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20397	.41903	.20639	.19658	.20407
Stddev	.00050	.00171	.00184	.00049	.00047
%RSD	.24635	.40897	.89003	.24724	.23143

#1	.20361	.41782	.20769	.19624	.20440
#2	.20432	.42024	.20509	.19693	.20373

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-10-b ms Acquired: 11/2/2018 13:01:24 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22879**
 Stddev .00138
 %RSD .60336

#1 **.22977**
 #2 **.22782**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3140.1	3093.3	24676.	3026.1
Stddev	3.3	3.2	159.	14.0
%RSD	.10442	.10469	.64552	.46119

#1	3137.8	3091.0	24564.	3035.9
#2	3142.4	3095.6	24789.	3016.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.57%	96.724%	98.179%	100.32%
Range				

Sample Name: 143841-b-10-c msD Acquired: 11/2/2018 13:04:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04984	9.9498	.20822	.20715	.21679
Stddev	.00046	.1380	.00222	.00019	.00069
%RSD	.92440	1.3868	1.0677	.09116	.32001

#1	.05016	10.047	.20979	.20702	.21728
#2	.04951	9.8522	.20665	.20729	.21630

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20552	25.134	.20789	-.0168	.19345
Stddev	.00128	.040	.00041	.0714	.00000
%RSD	.62460	.15949	.19742	424.5	.00115

#1	.20643	25.162	.20818	.0337	.19345
#2	.20462	25.105	.20760	-.0673	.19345

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19951	.20352	10.201	12.749	.19438
Stddev	.00069	.00052	.039	.062	.00052
%RSD	.34630	.25507	.38016	.48947	.26574

#1	.19999	.20389	10.228	12.793	.19401
#2	.19902	.20315	10.173	12.704	.19474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-b-10-c msD Acquired: 11/2/2018 13:04:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.522	.58514	.19521	51.304	.20276
Stddev	.015	.00306	.00094	.008	.00040
%RSD	.12343	.52379	.48032	.01608	.19953

#1	12.533	.58730	.19588	51.310	.20304
#2	12.511	.58297	.19455	51.298	.20247

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19605	15.671	.19742	.20201	16.112
Stddev	.00156	.009	.00076	.00190	.093
%RSD	.79711	.05429	.38433	.94192	.57865

#1	.19715	15.677	.19688	.20335	16.178
#2	.19494	15.665	.19795	.20066	16.046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20093	.41456	.20152	.19221	.19899
Stddev	.00183	.00094	.00045	.00068	.00037
%RSD	.91085	.22583	.22494	.35550	.18448

#1	.20223	.41522	.20184	.19270	.19873
#2	.19964	.41390	.20120	.19173	.19925

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143841-b-10-c msD Acquired: 11/2/2018 13:04:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22218**
 Stddev .00050
 %RSD .22674

#1 .22254
 #2 .22183

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.8	3096.7	24739.	3041.0
Stddev	3.1	2.5	68.	17.6
%RSD	.09757	.08056	.27603	.58013

#1	3156.0	3098.5	24691.	3028.6
#2	3151.6	3094.9	24788.	3053.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.01%	96.829%	98.430%	100.82%
Range				

Sample Name: 480-143841-b-11-b Acquired: 11/2/2018 13:08:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.35665	.00569	.00146	.03176
Stddev	.00082	.01938	.00048	.00010	.00013
%RSD	133.89	5.4348	8.5235	6.5297	.39844

#1	.00003	.37036	.00535	.00153	.03167
#2	.00119	.34294	.00603	.00140	.03184

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	131.17	-.00020	.0173	.00026
Stddev	.00010	.87	.00001	.0159	.00008
%RSD	193.09	.66574	3.0043	91.70	31.063

#1	-.00002	131.79	-.00019	.0285	.00031
#2	.00012	130.55	-.00020	.0061	.00020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00044	.54256	.50077	.00052
Stddev	.00023	.00076	.01181	.01189	.00088
%RSD	131.92	170.95	2.1770	2.3747	167.77

#1	.00001	.00009	.53421	.50918	.00114
#2	.00033	-.00098	.55091	.49236	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-11-b Acquired: 11/2/2018 13:08:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05407	.37340	.00762	35.226	.00055
Stddev	.00053	.00220	.00013	.025	.00020
%RSD	.98182	.58935	1.7624	.07121	36.480

#1	.05444	.37185	.00752	35.244	.00069
#2	.05369	.37496	.00771	35.208	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00101	F 102.14	-.00171	-.00071	.59279
Stddev	.00287	.15	.00050	.00408	.01395
%RSD	285.77	.15164	29.369	571.68	2.3534

#1	-.00304	102.25	-.00136	.00217	.60266
#2	.00103	102.04	-.00207	-.00360	.58293

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.02866	-.00059	.00322	-.00016
Stddev	.00025	.00032	.00003	.00035	.00065
%RSD	142.06	1.1246	4.4766	10.770	406.03

#1	.00035	.02889	-.00061	.00297	.00030
#2	-.00000	.02843	-.00058	.00346	-.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-11-b Acquired: 11/2/2018 13:08:25 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00377**
 Stddev .00031
 %RSD 8.2984

#1 **.00399**
 #2 **.00354**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3128.4	3061.5	24887.	3000.6
Stddev	.0	2.9	213.	21.0
%RSD	.00039	.09541	.85507	.69890

#1	3128.4	3059.4	25038.	2985.8
#2	3128.4	3063.5	24737.	3015.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.19%	95.727%	99.019%	99.478%
Range				

Sample Name: 480-143841-b-12-b Acquired: 11/2/2018 13:12:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	.99780	.05638	.00629	.16824
Stddev	.00053	.02532	.00137	.00004	.00061
%RSD	108.69	2.5380	2.4282	.60449	.36102

#1	-.00011	.97989	.05542	.00632	.16867
#2	-.00086	1.0157	.05735	.00626	.16781

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	94.866	.00003	.1128	.08980
Stddev	.00012	.201	.00005	.0141	.00021
%RSD	39.691	.21216	208.80	12.48	.23831

#1	.00038	95.008	.00007	.1228	.08965
#2	.00021	94.723	-.00001	.1029	.08996

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00106	-.00152	11.792	1.9011	.00141
Stddev	.00017	.00031	.003	.0443	.00198
%RSD	15.885	20.377	.02460	2.3292	140.47

#1	.00118	-.00174	11.794	1.8698	.00001
#2	.00094	-.00130	11.790	1.9324	.00281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-12-b Acquired: 11/2/2018 13:12:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.0443	3.8202	-0.00071	68.340	.00483
Stddev	.0078	.0182	.00021	.081	.00016
%RSD	.38029	.47533	29.523	.11856	3.2112

#1	2.0388	3.8330	-0.00086	68.282	.00494
#2	2.0498	3.8074	-0.00056	68.397	.00472

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00233	F 91.452	-0.00313	-0.00251	5.7231
Stddev	.00038	.051	.00058	.00141	.0157
%RSD	16.337	.05612	18.537	56.202	.27426

#1	.00206	91.416	-0.00272	-0.00350	5.7120
#2	.00259	91.489	-0.00354	-0.00151	5.7342

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.08421	-0.00082	.00348	-0.00035
Stddev	.00007	.00001	.00015	.00046	.00004
%RSD	15.832	.00991	17.907	13.198	12.841

#1	.00046	.08420	-0.00092	.00315	-0.00031
#2	.00037	.08422	-0.00072	.00380	-0.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-b-12-b Acquired: 11/2/2018 13:12:06 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.09023**
 Stddev .00026
 %RSD .28955

#1 **.09004**
 #2 **.09041**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3133.1	3087.8	25026.	3008.3
Stddev	1.2	1.5	90.	6.8
%RSD	.03714	.04973	.35935	.22620

#1	3133.9	3088.9	24962.	3003.5
#2	3132.2	3086.7	25090.	3013.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.34%	96.550%	99.571%	99.733%
Range				

Sample Name: lcsd 480-441229/25-a Acquired: 11/2/2018 13:15:44 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05031	10.041	.20637	.19617	.19768
Stddev	.00000	.014	.00107	.00029	.00036
%RSD	.00294	.14314	.51643	.14792	.18224

#1	.05031	10.031	.20712	.19638	.19743
#2	.05032	10.051	.20562	.19597	.19794

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20342	10.255	.20800	.0025	.19367
Stddev	.00080	.080	.00033	.0184	.00007
%RSD	.39213	.77675	.15958	727.8	.03636

#1	.20399	10.312	.20776	-.0105	.19362
#2	.20286	10.199	.20823	.0156	.19372

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20275	.19744	10.246	9.6876	.18833
Stddev	.00000	.00081	.078	.0406	.00021
%RSD	.00049	.41150	.75926	.41954	.10900

#1	.20275	.19687	10.301	9.7164	.18848
#2	.20275	.19802	10.191	9.6589	.18819

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcsd 480-441229/25-a Acquired: 11/2/2018 13:15:44 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.021	.20589	.19581	9.4169	.20083
Stddev	.014	.00018	.00031	.0218	.00106
%RSD	.14226	.08609	.16078	.23117	.52874

#1	10.011	.20577	.19604	9.4323	.20008
#2	10.031	.20602	.19559	9.4015	.20158

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19453	10.197	.19820	.19638	9.9819
Stddev	.00043	.009	.00081	.00353	.0118
%RSD	.22114	.08784	.40639	1.7990	.11834

#1	.19422	10.203	.19763	.19888	9.9902
#2	.19483	10.191	.19877	.19388	9.9735

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20296	.20463	.20305	.19192	.20058
Stddev	.00050	.00108	.00015	.00088	.00027
%RSD	.24611	.52540	.07315	.45899	.13523

#1	.20331	.20539	.20294	.19130	.20039
#2	.20260	.20387	.20315	.19254	.20078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcsd 480-441229/25-a Acquired: 11/2/2018 13:15:44 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.21232**
Stddev .00130
%RSD .61336

#1 **.21324**
#2 **.21140**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3154.5	3099.9	24594.	3036.3
Stddev	2.8	.8	19.	15.8
%RSD	.08996	.02557	.07576	.51954

#1	3156.5	3100.5	24580.	3025.1
#2	3152.5	3099.3	24607.	3047.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.04%	96.929%	97.850%	100.66%
Range				

Sample Name: 480-143841-a-9-a@5 Acquired: 11/2/2018 13:19:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	6.1907	.02759	.00266	.02558
Stddev	.00015	.0056	.00021	.00027	.00030
%RSD	199.19	.09049	.75985	10.152	1.1712

#1	-.00018	6.1947	.02774	.00247	.02579
#2	.00003	6.1868	.02744	.00285	.02536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	63.232	.00179	.1471	.00247
Stddev	.00006	.226	.00009	.0258	.00000
%RSD	13.256	.35717	4.7604	17.57	.08370

#1	.00048	63.392	.00173	.1288	.00247
#2	.00040	63.072	.00185	.1654	.00247

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00900	.00092	10.023	1.3326	.00668
Stddev	.00015	.00006	.051	.0380	.00002
%RSD	1.6157	6.2142	.50711	2.8508	.32493

#1	.00910	.00088	10.059	1.3057	.00670
#2	.00890	.00096	9.9874	1.3595	.00667

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-9-a@5 Acquired: 11/2/2018 13:19:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.1557	7.5744	.00473	13.399	.00344
Stddev	.0031	.0773	.00019	.040	.00030
%RSD	.14257	1.0207	3.9953	.29712	8.8459

#1	2.1535	7.5197	.00460	13.428	.00365
#2	2.1578	7.6290	.00486	13.371	.00322

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00578	56.388	-.00274	-.00038	6.6137
Stddev	.00023	.044	.00012	.00130	.0091
%RSD	4.0401	.07819	4.4686	341.27	.13751

#1	.00561	56.357	-.00265	-.00130	6.6202
#2	.00594	56.419	-.00282	.00054	6.6073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00066	.15433	.25146	.00329	.00648
Stddev	.00065	.00083	.00049	.00038	.00008
%RSD	98.155	.53471	.19314	11.641	1.2844

#1	.00113	.15492	.25112	.00302	.00642
#2	.00020	.15375	.25181	.00356	.00654

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143841-a-9-a@5 Acquired: 11/2/2018 13:19:15 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01674**
 Stddev .00008
 %RSD .49625

#1 **.01680**
 #2 **.01668**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3134.9	3154.4	25248.	3047.8
Stddev	4.9	7.6	115.	1.4
%RSD	.15506	.23951	.45633	.04553

#1	3138.4	3159.8	25330.	3048.8
#2	3131.5	3149.1	25167.	3046.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.40%	98.634%	100.45%	101.04%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 13:23:00 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.54587	24.937	.51381	.49857	.50670
Stddev	.00061	.011	.00388	.00028	.00119
%RSD	.11189	.04516	.75529	.05701	.23578

#1	.54544	24.929	.51656	.49837	.50585
#2	.54630	24.945	.51107	.49877	.50754

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49848	25.782	.51577	-.0334	.49591
Stddev	.00139	.075	.00033	.0430	.00048
%RSD	.27840	.29130	.06466	128.8	.09679

#1	.49750	25.835	.51601	-.0639	.49625
#2	.49946	25.729	.51554	-.0030	.49557

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50447	.51608	25.590	24.524	.48711
Stddev	.00283	.00183	.043	.005	.00017
%RSD	.56070	.35497	.16770	.02204	.03487

#1	.50647	.51478	25.559	24.520	.48723
#2	.50247	.51737	25.620	24.528	.48699

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 13:23:00 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.486	.52602	.49771	24.389	.49434
Stddev	.053	.00016	.00083	.049	.00133
%RSD	.20980	.02987	.16590	.20109	.26806

#1	25.524	.52613	.49829	24.354	.49527
#2	25.448	.52591	.49712	24.423	.49340

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49667	26.172	.50472	.51323	25.253
Stddev	.00220	.010	.00177	.00161	.045
%RSD	.44342	.03958	.35128	.31360	.17962

#1	.49511	26.179	.50597	.51437	25.221
#2	.49823	26.165	.50347	.51209	25.286

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51635	.51829	.51431	.48498	.50385
Stddev	.00134	.00004	.00035	.00104	.00272
%RSD	.25989	.00705	.06773	.21380	.53962

#1	.51730	.51831	.51406	.48424	.50577
#2	.51541	.51826	.51456	.48571	.50192

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 13:23:00 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51225**
 Stddev .00587
 %RSD 1.1464

#1 **.51641**
 #2 **.50810**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3123.0	3094.4	24602.	2997.1
Stddev	3.2	2.0	40.	5.3
%RSD	.10168	.06425	.16160	.17757
#1	3120.7	3093.0	24574.	3000.9
#2	3125.2	3095.8	24630.	2993.3

Sample Name: ccb-4975309 Acquired: 11/2/2018 13:26:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00132	-.05573	.00031	-.00070	.00007
Stddev	.00022	.02140	.00078	.00009	.00004
%RSD	16.658	38.403	253.59	13.235	53.995

#1	-.00147	-.04060	-.00024	-.00063	.00009
#2	-.00116	-.07087	.00086	-.00076	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00338	.00016	-.0134	.00009
Stddev	.00007	.00011	.00012	.0649	.00001
%RSD	47.042	3.1747	71.620	484.7	11.813

#1	.00010	.00331	.00024	-.0592	.00008
#2	.00021	.00346	.00008	.0325	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00203	.00496	.00090	.00020
Stddev	.00022	.00036	.00314	.01297	.00035
%RSD	317.71	17.800	63.217	1437.8	178.39

#1	.00022	-.00229	.00274	.01008	.00044
#2	-.00009	-.00178	.00718	-.00827	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 13:26:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00335	.00000	.00041	-.04434	.00024
Stddev	.00115	.00002	.00019	.00467	.00009
%RSD	34.255	597.52	45.502	10.528	36.742

#1	-.00416	.00002	.00028	-.04764	.00018
#2	-.00254	-.00001	.00055	-.04104	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	-.00119	-.00179	-.00196	-.04198
Stddev	.00005	.00104	.00172	.00310	.00091
%RSD	6.3523	87.189	96.431	158.37	2.1761

#1	-.00070	-.00193	-.00301	.00023	-.04133
#2	-.00077	-.00046	-.00057	-.00415	-.04263

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00001	.00016	.00035	-.00092
Stddev	.00019	.00022	.00044	.00123	.00022
%RSD	63.440	3711.0	270.56	347.37	23.395

#1	.00017	.00016	.00047	.00123	-.00108
#2	.00044	-.00015	-.00015	-.00052	-.00077

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 13:26:30 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00044**
 Stddev .00011
 %RSD 25.391

#1 **-.00036**
 #2 **-.00052**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3120.1	3097.2	24490.	2946.3
Stddev	.7	2.0	58.	6.2
%RSD	.02231	.06557	.23872	.20989
#1	3119.6	3098.7	24449.	2941.9
#2	3120.6	3095.8	24531.	2950.7

Sample Name: ccvl-4970377 Acquired: 11/2/2018 13:30:13 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00606	W .13431	.01782	.01764	.00211
Stddev	.00056	.01888	.00239	.00025	.00008
%RSD	9.3146	14.055	13.431	1.4230	3.8443

#1	.00566	.12096	.01613	.01746	.00205
#2	.00646	.14766	.01952	.01781	.00216

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value		.20000			
Range		-30.000%			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00232	.53832	.00192	.0051	.00419
Stddev	.00014	.00037	.00004	.0311	.00027
%RSD	6.0167	.06852	2.1894	614.5	6.4216

#1	.00222	.53806	.00189	.0271	.00400
#2	.00242	.53858	.00195	-.0169	.00438

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00379	.00806	.05506	.48212	.02765
Stddev	.00040	.00058	.00670	.01675	.00126
%RSD	10.586	7.1923	12.161	3.4738	4.5539

#1	.00351	.00765	.05980	.49397	.02854
#2	.00408	.00847	.05033	.47028	.02676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 13:30:13 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20271	.00307	.00924	.90947	.01064
Stddev	.00175	.00006	.00002	.00285	.00003
%RSD	.86198	1.8998	.25272	.31359	.25441

#1	.20148	.00303	.00925	.91149	.01066
#2	.20395	.00311	.00922	.90746	.01062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01042	.20236	.01872	.02070	.47352
Stddev	.00018	.00314	.00067	.00118	.00199
%RSD	1.7465	1.5500	3.5569	5.7167	.42113

#1	.01029	.20014	.01825	.02153	.47211
#2	.01055	.20457	.01919	.01986	.47493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01062	.00519	.00512	.02177	.00403
Stddev	.00024	.00015	.00041	.00074	.00006
%RSD	2.3047	2.8236	8.0408	3.3965	1.3849

#1	.01080	.00509	.00483	.02125	.00407
#2	.01045	.00530	.00541	.02230	.00399

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 13:30:13 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01048**
 Stddev .00048
 %RSD 4.5572

#1 **.01015**
 #2 **.01082**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3154.6	3130.4	24672.	2971.5
Stddev	2.9	3.9	173.	8.0
%RSD	.09267	.12348	.70202	.26787
#1	3156.6	3133.1	24794.	2977.2
#2	3152.5	3127.6	24549.	2965.9

Sample Name: mb 480-441907/1-a Acquired: 11/2/2018 13:33:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	-.03302	.00229	-.00136	.00012
Stddev	.00008	.00894	.00051	.00017	.00003
%RSD	13.183	27.074	22.298	12.604	22.320

#1	-.00069	-.03934	.00265	-.00124	.00014
#2	-.00057	-.02670	.00193	-.00148	.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.03271	-.00017	-.0282	.00017
Stddev	.00013	.00405	.00017	.0171	.00002
%RSD	616.74	12.386	99.337	60.74	9.7000

#1	.00007	.02984	-.00005	-.0403	.00016
#2	-.00012	.03557	-.00028	-.0161	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00180	.00402	-.02185	.00045
Stddev	.00022	.00066	.00386	.03952	.00146
%RSD	83.985	36.503	96.021	180.82	322.28

#1	.00011	-.00227	.00129	-.04980	.00148
#2	.00041	-.00134	.00675	.00609	-.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441907/1-a Acquired: 11/2/2018 13:33:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	-.00002	-.00058	-.01977	.00061
Stddev	.00059	.00008	.00017	.02079	.00013
%RSD	134.04	477.91	29.410	105.15	21.005

#1	-.00002	-.00007	-.00070	-.00507	.00052
#2	-.00086	.00004	-.00046	-.03447	.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.00734	-.00221	-.00357	-.01157
Stddev	.00013	.00011	.00070	.00040	.00507
%RSD	27.781	1.4919	31.595	11.095	43.829

#1	-.00036	.00742	-.00270	-.00385	-.01516
#2	-.00054	.00726	-.00172	-.00329	-.00799

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.00010	.00057	.00128	-.00044
Stddev	.00029	.00016	.00066	.00147	.00052
%RSD	311.98	169.25	115.49	114.80	119.07

#1	-.00030	.00021	.00011	.00232	-.00080
#2	.00011	-.00002	.00104	.00024	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441907/1-a Acquired: 11/2/2018 13:33:56 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00306**
 Stddev .00029
 %RSD 9.4782

#1 **.00286**
 #2 **.00327**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3142.4	3133.0	24807.	3023.4
Stddev	6.8	4.8	124.	33.9
%RSD	.21570	.15437	.50170	1.1209

#1	3147.2	3136.4	24719.	3047.3
#2	3137.6	3129.6	24895.	2999.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.64%	97.964%	98.699%	100.23%
Range				

Sample Name: lcs 480-441907/2-a Acquired: 11/2/2018 13:37:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05039	9.9479	.20420	.19437	.19593
Stddev	.00052	.0369	.00023	.00011	.00030
%RSD	1.0259	.37041	.11248	.05786	.15388

#1	.05003	9.9739	.20436	.19429	.19614
#2	.05076	9.9218	.20404	.19445	.19571

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20185	10.231	.20631	.0027	.19203
Stddev	.00032	.028	.00035	.0084	.00028
%RSD	.15813	.27413	.16807	315.7	.14652

#1	.20162	10.211	.20607	-.0033	.19183
#2	.20207	10.251	.20656	.0086	.19223

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20126	.19493	10.222	9.5649	.18687
Stddev	.00045	.00211	.046	.0368	.00226
%RSD	.22158	1.0814	.44716	.38471	1.2073

#1	.20094	.19344	10.254	9.5909	.18527
#2	.20157	.19642	10.189	9.5389	.18846

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441907/2-a Acquired: 11/2/2018 13:37:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9094	.20293	.19324	9.3242	.19979
Stddev	.0131	.00042	.00121	.0080	.00097
%RSD	.13262	.20564	.62628	.08525	.48487

#1	9.9001	.20263	.19410	9.3186	.20047
#2	9.9187	.20322	.19239	9.3299	.19910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19239	10.259	.19798	.19566	9.9818
Stddev	.00051	.016	.00122	.00205	.0078
%RSD	.26751	.15788	.61757	1.0497	.07839

#1	.19202	10.248	.19885	.19711	9.9763
#2	.19275	10.270	.19712	.19421	9.9873

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19978	.20361	.20062	.18970	.19974
Stddev	.00009	.00054	.00072	.00093	.00035
%RSD	.04372	.26747	.36008	.49111	.17351

#1	.19972	.20399	.20011	.19035	.19998
#2	.19984	.20322	.20113	.18904	.19949

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441907/2-a Acquired: 11/2/2018 13:37:38 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21048**
 Stddev .00055
 %RSD .26076

#1 **.21087**
 #2 **.21010**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3161.2	3102.4	24618.	3051.8
Stddev	1.5	4.2	29.	6.6
%RSD	.04855	.13687	.11973	.21468

#1	3162.3	3105.4	24598.	3056.4
#2	3160.1	3099.4	24639.	3047.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.25%	97.006%	97.949%	101.18%
Range				

Sample Name: 480-143884-b-1-a Acquired: 11/2/2018 13:41:10 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	.18505	.00143	.00638	.02091
Stddev	.00007	.04612	.00029	.00015	.00012
%RSD	9.3208	24.924	19.945	2.4025	.57781

#1	-.00073	.15244	.00123	.00648	.02082
#2	-.00084	.21767	.00163	.00627	.02100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	6.6515	.00001	-.0084	.00051
Stddev	.00017	.0185	.00018	.0348	.00008
%RSD	189.95	.27813	3444.2	413.4	15.080

#1	.00003	6.6646	.00013	-.0330	.00056
#2	-.00021	6.6384	-.00012	.0162	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	-.00117	.81189	2.0878	-.00105
Stddev	.00003	.00058	.00725	.0623	.00122
%RSD	10.041	49.496	.89298	2.9827	116.28

#1	.00036	-.00076	.80676	2.1318	-.00019
#2	.00031	-.00157	.81701	2.0438	-.00191

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-1-a Acquired: 11/2/2018 13:41:10 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.1980	.58187	.00012	4.2699	.00100
Stddev	.0073	.00149	.00004	.0042	.00030
%RSD	.32970	.25677	31.964	.09840	30.161

#1	2.2031	.58081	.00009	4.2669	.00078
#2	2.1929	.58293	.00015	4.2728	.00121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00119	1.1978	-.00268	-.00338	4.7076
Stddev	.00095	.0033	.00005	.00086	.0584
%RSD	79.716	.27911	1.9688	25.359	1.2406

#1	.00185	1.1954	-.00264	-.00398	4.6663
#2	.00052	1.2002	-.00272	-.00277	4.7489

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.06660	.00666	.00299	-.00067
Stddev	.00014	.00051	.00042	.00086	.00003
%RSD	69.362	.76517	6.3586	28.568	4.7332

#1	.00031	.06696	.00695	.00239	-.00070
#2	.00011	.06624	.00636	.00360	-.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-1-a Acquired: 11/2/2018 13:41:10 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00554**
 Stddev .00002
 %RSD .29170

#1 **.00555**
 #2 **.00553**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3173.3	3110.6	24762.	3039.9
Stddev	1.7	4.5	45.	10.7
%RSD	.05391	.14548	.18180	.35282

#1	3174.5	3113.8	24794.	3032.3
#2	3172.1	3107.4	24730.	3047.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.64%	97.263%	98.521%	100.78%
Range				

Sample Name: 480-143884-b-1-b ms Acquired: 11/2/2018 13:44:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04998	10.133	.21032	.20089	.21482
Stddev	.00100	.070	.00217	.00053	.00067
%RSD	1.9992	.69558	1.0334	.26244	.31061

#1	.05068	10.084	.20878	.20126	.21529
#2	.04927	10.183	.21186	.20051	.21435

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20821	16.927	.21258	-.0205	.19745
Stddev	.00011	.028	.00033	.0169	.00006
%RSD	.05091	.16666	.15452	82.46	.03257

#1	.20829	16.907	.21281	-.0325	.19749
#2	.20814	16.947	.21235	-.0086	.19740

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20466	.20109	11.251	11.592	.18688
Stddev	.00270	.00144	.042	.004	.00093
%RSD	1.3207	.71681	.37464	.03541	.49707

#1	.20657	.20211	11.222	11.589	.18622
#2	.20275	.20007	11.281	11.595	.18753

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-1-b ms Acquired: 11/2/2018 13:44:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.317	.76387	.19892	13.465	.20456
Stddev	.121	.00238	.00043	.003	.00002
%RSD	.98333	.31144	.21661	.02172	.00846

#1	12.403	.76556	.19922	13.467	.20455
#2	12.231	.76219	.19861	13.463	.20457

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19896	11.390	.20279	.20347	14.631
Stddev	.00096	.002	.00141	.00474	.017
%RSD	.48314	.01746	.69447	2.3307	.11717

#1	.19828	11.388	.20379	.20682	14.643
#2	.19964	11.391	.20180	.20012	14.619

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19841	.26649	.21432	.19465	.20420
Stddev	.00054	.00086	.00201	.00120	.00189
%RSD	.27254	.32456	.93609	.61714	.92577

#1	.19803	.26588	.21573	.19380	.20554
#2	.19880	.26710	.21290	.19550	.20287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-1-b ms Acquired: 11/2/2018 13:44:50 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21739**
 Stddev .00062
 %RSD .28733

#1 **.21783**
 #2 **.21695**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3158.3	3089.3	24723.	3030.5
Stddev	1.0	.1	31.	5.5
%RSD	.03046	.00340	.12409	.18122

#1	3157.6	3089.2	24701.	3034.4
#2	3159.0	3089.4	24745.	3026.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.16%	96.597%	98.365%	100.47%
Range				

Sample Name: 480-143884-b-1-c msd Acquired: 11/2/2018 13:48:22 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05121	10.285	.21015	.20361	.21905
Stddev	.00074	.015	.00053	.00057	.00005
%RSD	1.4424	.14207	.25281	.27847	.02342

#1	.05173	10.295	.20977	.20321	.21901
#2	.05069	10.275	.21052	.20401	.21909

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20608	16.980	.21061	-.0194	.19594
Stddev	.00065	.031	.00055	.0096	.00017
%RSD	.31662	.17994	.26113	49.64	.08615

#1	.20655	16.958	.21100	-.0126	.19582
#2	.20562	17.001	.21022	-.0262	.19605

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20340	.20142	11.196	11.735	.18774
Stddev	.00167	.00088	.002	.017	.00038
%RSD	.82025	.43480	.01405	.14833	.20373

#1	.20222	.20204	11.197	11.748	.18747
#2	.20458	.20080	11.195	11.723	.18801

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-1-c msd Acquired: 11/2/2018 13:48:22 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.355	.78416	.19756	13.643	.20240
Stddev	.038	.00020	.00065	.018	.00003
%RSD	.30706	.02560	.32880	.12941	.01659

#1	12.328	.78402	.19802	13.656	.20238
#2	12.382	.78430	.19710	13.631	.20242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19804	11.516	.19996	.19868	14.850
Stddev	.00084	.017	.00163	.00058	.066
%RSD	.42355	.15082	.81598	.29029	.44290

#1	.19745	11.528	.19881	.19908	14.896
#2	.19864	11.503	.20112	.19827	14.803

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20023	.27091	.21401	.19324	.20259
Stddev	.00050	.00018	.00166	.00213	.00052
%RSD	.25077	.06736	.77333	1.1027	.25690

#1	.20059	.27078	.21284	.19173	.20222
#2	.19988	.27104	.21518	.19474	.20296

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-1-c msd Acquired: 11/2/2018 13:48:22 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21526**
 Stddev .00218
 %RSD 1.0125

#1 **.21372**
 #2 **.21680**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3155.8	3084.7	24618.	3045.8
Stddev	6.5	3.1	131.	.0
%RSD	.20525	.10089	.53228	.00004

#1	3160.4	3086.9	24711.	3045.8
#2	3151.3	3082.5	24526.	3045.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.08%	96.454%	97.948%	100.98%
Range				

Sample Name: 480-143884-b-2-a Acquired: 11/2/2018 13:51:53 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	3.7083	.00301	.00796	.08458
Stddev	.00025	.0307	.00026	.00006	.00024
%RSD	66.358	.82804	8.5164	.69923	.28271

#1	-0.00020	3.7300	.00282	.00800	.08441
#2	-0.00055	3.6866	.00319	.00792	.08475

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	7.1439	-.00010	.0051	.00471
Stddev	.00004	.0186	.00014	.0084	.00010
%RSD	9.2133	.26009	141.98	165.8	2.0985

#1	.00038	7.1570	.00000	-.0009	.00478
#2	.00043	7.1307	-.00019	.0110	.00464

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00596	.00300	6.5700	3.1283	.00181
Stddev	.00059	.00040	.0436	.0394	.00188
%RSD	9.8453	13.370	.66397	1.2608	103.62

#1	.00555	.00272	6.6009	3.1562	.00048
#2	.00638	.00328	6.5392	3.1005	.00314

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-2-a Acquired: 11/2/2018 13:51:53 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.8879	.73699	-.00006	4.6176	.00230
Stddev	.0155	.00124	.00002	.0100	.00028
%RSD	.53550	.16771	25.069	.21709	12.314

#1	2.8770	.73611	-.00005	4.6105	.00250
#2	2.8988	.73786	-.00007	4.6247	.00210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00554	.73691	-.00111	-.00389	10.335
Stddev	.00017	.00236	.00102	.00218	.005
%RSD	3.1588	.32034	92.215	56.046	.05067

#1	.00566	.73858	-.00039	-.00235	10.339
#2	.00542	.73524	-.00183	-.00543	10.332

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.05393	.22029	.00225	.01249
Stddev	.00012	.00020	.00035	.00095	.00043
%RSD	58.632	.36866	.16035	41.948	3.4360

#1	.00012	.05379	.22004	.00292	.01219
#2	.00028	.05407	.22054	.00159	.01279

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-2-a Acquired: 11/2/2018 13:51:53 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01539**
 Stddev .00054
 %RSD 3.4982

#1 **.01501**
 #2 **.01578**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3167.7	3126.5	24870.	3066.2
Stddev	7.7	4.9	76.	10.3
%RSD	.24403	.15532	.30759	.33581

#1	3173.2	3129.9	24924.	3073.5
#2	3162.3	3123.0	24816.	3058.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.46%	97.759%	98.950%	101.65%
Range				

Sample Name: 480-143884-b-2-aSD@5 Acquired: 11/2/2018 13:55:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	.73355	-.00044	.00046	.01712
Stddev	.00040	.00760	.00159	.00014	.00008
%RSD	32.631	1.0363	359.33	30.831	.45882

#1	-.00149	.72817	.00068	.00036	.01707
#2	-.00093	.73892	-.00157	.00056	.01718

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	1.4404	-.00007	.0365	.00112
Stddev	.00002	.0050	.00004	.0258	.00008
%RSD	8.5501	.34618	56.624	70.63	7.5607

#1	.00024	1.4369	-.00010	.0547	.00118
#2	.00027	1.4439	-.00004	.0183	.00106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00133	-.00095	1.3182	.59859	.00015
Stddev	.00061	.00001	.0125	.00514	.00092
%RSD	45.876	.53177	.95116	.85894	630.38

#1	.00090	-.00095	1.3094	.59496	-.00051
#2	.00176	-.00095	1.3271	.60223	.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-2-aSD@5 Acquired: 11/2/2018 13:55:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.58168	.14909	-.00064	.87964	.00087
Stddev	.00184	.00099	.00003	.00352	.00059
%RSD	.31690	.66740	5.3186	.40014	67.535

#1	.58038	.14838	-.00066	.88213	.00129
#2	.58298	.14979	-.00061	.87716	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.14297	-.00145	-.00611	2.1051
Stddev	.00016	.00030	.00133	.00001	.0256
%RSD	34.643	.20867	92.278	.18572	1.2179

#1	.00034	.14276	-.00239	-.00610	2.0870
#2	.00056	.14318	-.00050	-.00612	2.1232

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.01090	.04803	.00311	.00194
Stddev	.00027	.00010	.00146	.00084	.00061
%RSD	93.665	.89779	3.0385	27.006	31.254

#1	.00010	.01083	.04700	.00251	.00151
#2	.00048	.01097	.04906	.00370	.00237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-2-aSD@5 Acquired: 11/2/2018 13:55:32 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00332**
 Stddev .00038
 %RSD 11.327

#1 **.00306**
 #2 **.00359**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3148.2	3118.2	24621.	3002.0
Stddev	5.0	.9	156.	4.0
%RSD	.16003	.02958	.63527	.13303

#1	3151.7	3117.5	24732.	3004.8
#2	3144.6	3118.8	24511.	2999.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.83%	97.500%	97.960%	99.525%
Range				

Sample Name: 480-143884-b-2-aPDS Acquired: 11/2/2018 13:59:14 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05176	14.035	.20984	.20850	.28405
Stddev	.00129	.023	.00194	.00035	.00011
%RSD	2.4876	.16215	.92652	.16791	.03830

#1	.05085	14.051	.20847	.20825	.28397
#2	.05267	14.019	.21122	.20875	.28412

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20565	17.294	.21042	-.0215	.20097
Stddev	.00003	.046	.00047	.0478	.00005
%RSD	.01634	.26883	.22331	222.2	.02692

#1	.20568	17.262	.21075	-.0553	.20101
#2	.20563	17.327	.21009	.0123	.20093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21010	.20424	16.644	12.884	.19404
Stddev	.00193	.00353	.017	.020	.00011
%RSD	.91881	1.7271	.10444	.15668	.05633

#1	.20873	.20175	16.657	12.898	.19412
#2	.21146	.20674	16.632	12.870	.19396

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-2-aPDS Acquired: 11/2/2018 13:59:14 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	13.017	.91280	.19656	14.080	.20574
Stddev	.078	.00278	.00066	.058	.00015
%RSD	.59632	.30493	.33597	.41395	.07486

#1	12.962	.91084	.19703	14.121	.20563
#2	13.072	.91477	.19609	14.039	.20585

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20450	11.133	.19895	.19852	20.392
Stddev	.00110	.010	.00097	.00218	.145
%RSD	.53800	.08881	.48574	1.0958	.71173

#1	.20372	11.140	.19827	.20005	20.495
#2	.20528	11.126	.19964	.19698	20.290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20964	.25942	.43000	.19402	.21404
Stddev	.00052	.00079	.00027	.00024	.00150
%RSD	.24745	.30463	.06312	.12536	.69996

#1	.20927	.25886	.43019	.19384	.21298
#2	.21000	.25997	.42981	.19419	.21510

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-2-aPDS Acquired: 11/2/2018 13:59:14 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22817**
 Stddev .00039
 %RSD .16937

#1 **.22789**
 #2 **.22844**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3162.9	3113.4	24845.	3065.0
Stddev	1.9	.2	110.	.1
%RSD	.06052	.00633	.44405	.00188

#1	3164.2	3113.2	24923.	3065.0
#2	3161.5	3113.5	24767.	3065.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.31%	97.350%	98.850%	101.61%
Range				

Sample Name: 480-143884-b-3-a Acquired: 11/2/2018 14:02:44 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00042	1.6955	.00088	.01529	.05408
Stddev	.00057	.0208	.00057	.00021	.00001
%RSD	137.57	1.2270	64.045	1.3862	.01777

#1	-.00082	1.6808	.00129	.01514	.05407
#2	-.00001	1.7102	.00048	.01544	.05409

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	7.8487	-.00002	-.0088	.00219
Stddev	.00021	.0227	.00010	.0181	.00004
%RSD	67.936	.28965	497.28	205.5	1.9523

#1	.00016	7.8648	.00005	.0040	.00222
#2	.00045	7.8327	-.00009	-.0216	.00216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.00057	2.9551	2.9172	.00061
Stddev	.00002	.00107	.0052	.0034	.00033
%RSD	1.0307	185.91	.17599	.11584	54.638

#1	.00211	-.00018	2.9588	2.9148	.00084
#2	.00208	.00133	2.9514	2.9196	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-3-a Acquired: 11/2/2018 14:02:44 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.6899	.87102	-.00031	4.7102	.00147
Stddev	.0003	.00154	.00005	.0085	.00023
%RSD	.00976	.17710	15.752	.18093	15.479

#1	2.6897	.86993	-.00034	4.7042	.00130
#2	2.6901	.87211	-.00028	4.7163	.00163

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00307	.87148	-.00177	-.00379	7.9288
Stddev	.00127	.00294	.00171	.00132	.0196
%RSD	41.377	.33731	96.670	34.899	.24690

#1	.00396	.86940	-.00298	-.00286	7.9150
#2	.00217	.87356	-.00056	-.00473	7.9427

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.06063	.08430	.00097	.00417
Stddev	.00048	.00039	.00095	.00098	.00077
%RSD	490.44	.64944	1.1300	100.01	18.393

#1	.00044	.06035	.08498	.00166	.00362
#2	-.00024	.06091	.08363	.00029	.00471

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-3-a Acquired: 11/2/2018 14:02:44 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00678**
 Stddev .00005
 %RSD .71491

#1 **.00675**
 #2 **.00682**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3172.0	3115.7	24861.	3017.4
Stddev	.7	1.7	106.	18.3
%RSD	.02316	.05504	.42634	.60770

#1	3171.5	3114.5	24936.	3030.3
#2	3172.5	3116.9	24786.	3004.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.60%	97.423%	98.914%	100.03%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 14:06:26 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .55059	24.994	.51462	.49592	.50897
Stddev	.00118	.106	.00074	.00033	.00074
%RSD	.21402	.42499	.14395	.06643	.14498

#1	.54976	24.919	.51515	.49615	.50949
#2	.55143	25.070	.51410	.49569	.50845

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49797	26.034	.51695	-.0144	.49730
Stddev	.00163	.053	.00059	.0294	.00026
%RSD	.32719	.20206	.11395	203.5	.05264

#1	.49681	25.997	.51653	.0063	.49712
#2	.49912	26.071	.51736	-.0352	.49749

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50617	.51905	25.831	24.492	.48599
Stddev	.00255	.00116	.032	.023	.00113
%RSD	.50432	.22348	.12321	.09360	.23232

#1	.50797	.51823	25.808	24.476	.48519
#2	.50436	.51987	25.853	24.508	.48679

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 14:06:26 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.597	.52824	.49634	24.359	.49588
Stddev	.049	.00161	.00159	.029	.00062
%RSD	.19097	.30477	.31945	.11830	.12508

#1	25.631	.52938	.49746	24.380	.49632
#2	25.562	.52710	.49522	24.339	.49544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50008	26.227	.50441	.50796	25.395
Stddev	.00021	.008	.00325	.00528	.000
%RSD	.04194	.03150	.64498	1.0387	.00149

#1	.49993	26.221	.50671	.51169	25.395
#2	.50023	26.233	.50211	.50423	25.396

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.52114	.51927	.51486	.48499	.50262
Stddev	.00084	.00028	.00145	.00340	.00068
%RSD	.16190	.05461	.28180	.70112	.13467

#1	.52054	.51907	.51383	.48740	.50310
#2	.52173	.51947	.51588	.48259	.50214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 14:06:26 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51247**
 Stddev .00220
 %RSD .43008

#1 **.51402**
 #2 **.51091**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3131.2	3095.2	24670.	2992.3
Stddev	2.9	3.1	81.	2.6
%RSD	.09393	.10126	.33019	.08799
#1	3133.2	3097.4	24613.	2994.2
#2	3129.1	3093.0	24728.	2990.5

Sample Name: ccb-4975309 Acquired: 11/2/2018 14:09:53 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.05451	.00080	-.00076	.00005
Stddev	.00068	.00003	.00054	.00032	.00001
%RSD	294.90	.06025	67.861	41.532	12.932

#1	.00025	-.05453	.00041	-.00099	.00005
#2	-.00071	-.05448	.00118	-.00054	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-.00442	.00000	.0131	.00004
Stddev	.00005	.00654	.00002	.0295	.00028
%RSD	53.798	147.93	608.24	225.6	627.48

#1	.00014	.00020	-.00001	.0339	-.00015
#2	.00006	-.00905	.00002	-.0078	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	-.00125	-.00213	.00948	-.00299
Stddev	.00028	.00065	.00195	.02773	.00134
%RSD	40.739	52.204	91.181	292.54	44.833

#1	.00048	-.00079	-.00076	-.01013	-.00394
#2	.00087	-.00171	-.00351	.02909	-.00204

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 14:09:53 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00201	.00010	.00066	-.04900	.00043
Stddev	.00260	.00003	.00043	.00457	.00002
%RSD	129.40	30.305	64.658	9.3207	5.5232

#1	.00017	.00012	.00036	-.04577	.00041
#2	.00385	.00008	.00096	-.05223	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00211	-.00280	-.00251	-.01866
Stddev	.00024	.00022	.00016	.00323	.04200
%RSD	389.55	10.497	5.5437	128.87	225.06

#1	-.00011	-.00227	-.00269	-.00022	-.04837
#2	.00023	-.00196	-.00291	-.00479	.01104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.00009	.00056	.00114	-.00080
Stddev	.00056	.00009	.00003	.00043	.00007
%RSD	95.219	99.317	4.5001	37.645	8.2974

#1	.00098	.00015	.00054	.00084	-.00075
#2	.00019	.00003	.00057	.00144	-.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 14:09:53 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00040**
 Stddev .00006
 %RSD 15.059

#1 **.00044**
 #2 **.00036**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3130.7	3095.7	24547.	2954.6
Stddev	2.2	4.0	104.	7.2
%RSD	.06889	.13059	.42209	.24422
#1	3129.2	3092.9	24474.	2959.7
#2	3132.3	3098.6	24620.	2949.5

Sample Name: ccvl-4970377 Acquired: 11/2/2018 14:13:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00574	.16183	.01656	.01876	.00208
Stddev	.00059	.02247	.00105	.00018	.00002
%RSD	10.205	13.882	6.3130	.98353	.85142

#1	.00532	.17772	.01582	.01889	.00210
#2	.00615	.14595	.01730	.01863	.00207

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00201	.53716	.00203	.0175	.00437
Stddev	.00006	.00029	.00005	.0212	.00005
%RSD	2.7675	.05433	2.2347	121.2	1.1172

#1	.00205	.53695	.00207	.0325	.00434
#2	.00197	.53736	.00200	.0025	.00441

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00400	.00764	.05551	.49773	.02810
Stddev	.00025	.00042	.00316	.01370	.00204
%RSD	6.3771	5.4867	5.7000	2.7532	7.2491

#1	.00382	.00793	.05774	.50742	.02954
#2	.00418	.00734	.05327	.48804	.02666

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 14:13:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20827	.00305	.00952	.90743	.01060
Stddev	.00027	.00004	.00009	.00714	.00010
%RSD	.13118	1.4536	.98940	.78725	.93078

#1	.20846	.00309	.00959	.90238	.01053
#2	.20808	.00302	.00945	.91248	.01067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01068	.20387	.01510	.01897	.47609
Stddev	.00006	.00302	.00131	.00048	.00599
%RSD	.58442	1.4789	8.6435	2.5229	1.2578

#1	.01064	.20600	.01418	.01931	.47186
#2	.01073	.20174	.01603	.01863	.48033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01020	.00524	.00512	.02260	.00380
Stddev	.00059	.00009	.00008	.00048	.00046
%RSD	5.8111	1.7671	1.4754	2.1226	12.039

#1	.00978	.00518	.00517	.02294	.00412
#2	.01062	.00531	.00506	.02226	.00348

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 14:13:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.01109**
Stddev .00081
%RSD 7.2779

#1 **.01166**
#2 **.01052**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3162.1	3122.0	24595.	2994.0
Stddev	4.8	2.2	66.	12.5
%RSD	.15137	.07021	.26922	.41706
#1	3158.7	3120.5	24548.	3002.8
#2	3165.4	3123.6	24642.	2985.2

Sample Name: 480-143884-b-4-a Acquired: 11/2/2018 14:17:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00113	-.02080	-.00004	.72239	.08693
Stddev	.00160	.00685	.00109	.00015	.00008
%RSD	140.73	32.951	2665.2	.02124	.08916

#1	-.00001	-.02564	-.00081	.72250	.08698
#2	-.00226	-.01595	.00073	.72228	.08687

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	30.027	.00001	-.0192	.01574
Stddev	.00010	.176	.00007	.0125	.00010
%RSD	45.645	.58503	716.52	65.00	.61678

#1	.00030	29.903	-.00004	-.0104	.01567
#2	.00015	30.151	.00006	-.0280	.01581

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00142	-.00096	3.0714	4.4898	-.00042
Stddev	.00013	.00078	.0164	.0153	.00083
%RSD	9.0936	81.603	.53430	.34028	195.50

#1	.00133	-.00041	3.0830	4.4790	.00016
#2	.00151	-.00151	3.0598	4.5006	-.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-4-a Acquired: 11/2/2018 14:17:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.0496	4.2802	-0.00069	18.999	.00256
Stddev	.0069	.0029	.00001	.103	.00001
%RSD	.07595	.06835	1.4182	.54208	.37701

#1	9.0545	4.2781	-0.00070	18.926	.00257
#2	9.0448	4.2822	-0.00069	19.071	.00256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00105	4.0986	-0.00348	-0.00373	6.6439
Stddev	.00040	.0044	.00034	.00157	.0483
%RSD	38.296	.10784	9.6386	42.111	.72656

#1	.00077	4.1018	-0.00371	-0.00484	6.6780
#2	.00133	4.0955	-0.00324	-0.00262	6.6098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.25610	.00015	.00274	-0.00056
Stddev	.00021	.00025	.00073	.00124	.00070
%RSD	106.45	.09761	478.68	45.268	125.78

#1	.00035	.25592	-0.00036	.00361	-0.00105
#2	.00005	.25627	.00067	.00186	-0.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-4-a Acquired: 11/2/2018 14:17:19 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00382**
 Stddev .00049
 %RSD 12.872

#1 **.00347**
 #2 **.00417**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3161.2	3088.7	24954.	3035.4
Stddev	1.5	1.0	10.	8.2
%RSD	.04879	.03297	.03959	.27014

#1	3162.3	3089.4	24961.	3041.2
#2	3160.1	3088.0	24947.	3029.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.25%	96.578%	99.284%	100.63%
Range				

Sample Name: 480-143884-b-5-a Acquired: 11/2/2018 14:20:57 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.20201	.00147	.01028	.03103
Stddev	.00012	.01437	.00160	.00016	.00001
%RSD	21.302	7.1151	108.79	1.5771	.04667

#1	-.00049	.21218	.00034	.01017	.03102
#2	-.00067	.19185	.00259	.01040	.03104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	7.6670	-.00004	.0084	.00043
Stddev	.00005	.0303	.00019	.0497	.00001
%RSD	68.094	.39518	463.86	590.9	2.7329

#1	.00004	7.6456	.00009	-.0267	.00044
#2	.00011	7.6885	-.00017	.0436	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00114	.86892	2.9072	.00145
Stddev	.00032	.00046	.00247	.0101	.00110
%RSD	191.06	39.972	.28397	.34879	75.982

#1	.00039	-.00082	.86717	2.9143	.00067
#2	-.00006	-.00147	.87066	2.9000	.00223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-5-a Acquired: 11/2/2018 14:20:57 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.4040	.15889	-.00069	4.6639	.00047
Stddev	.0018	.00039	.00006	.0065	.00001
%RSD	.07646	.24402	8.4471	.13837	3.0982

#1	2.4053	.15861	-.00073	4.6685	.00046
#2	2.4027	.15916	-.00065	4.6594	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00163	.90962	-.00078	-.00174	6.7250
Stddev	.00054	.00290	.00075	.00329	.0199
%RSD	32.875	.31880	96.305	189.09	.29653

#1	.00201	.91167	-.00131	.00059	6.7391
#2	.00125	.90757	-.00025	-.00407	6.7109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.06003	.00876	.00156	.00033
Stddev	.00019	.00019	.00044	.00173	.00012
%RSD	397.51	.31011	4.9921	111.08	37.135

#1	.00018	.05990	.00845	.00033	.00042
#2	-.00009	.06016	.00907	.00278	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-5-a Acquired: 11/2/2018 14:20:57 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00333**
 Stddev .00002
 %RSD .60875

#1 **.00335**
 #2 **.00332**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3163.0	3085.2	24660.	3032.0
Stddev	3.2	2.8	50.	2.6
%RSD	.10086	.09122	.20468	.08417

#1	3165.3	3087.2	24696.	3030.1
#2	3160.8	3083.2	24625.	3033.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.31%	96.470%	98.116%	100.52%
Range				

Sample Name: 480-143884-b-6-a Acquired: 11/2/2018 14:24:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	.66326	.00197	.00356	.03231
Stddev	.00040	.02391	.00051	.00009	.00014
%RSD	70.335	3.6052	25.814	2.5367	.43498

#1	-.00029	.64636	.00161	.00349	.03241
#2	-.00086	.68017	.00233	.00362	.03221

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	4.2357	.00005	.0298	.00070
Stddev	.00011	.0040	.00020	.0236	.00002
%RSD	55.570	.09359	420.06	79.14	2.7746

#1	.00012	4.2386	.00019	.0464	.00069
#2	.00027	4.2329	-.00009	.0131	.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00084	.90694	1.4164	-.00018
Stddev	.00043	.00053	.00130	.0331	.00149
%RSD	82.428	62.800	.14368	2.3343	825.08

#1	.00083	.00047	.90786	1.4398	.00087
#2	.00022	.00122	.90602	1.3930	-.00123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-6-a Acquired: 11/2/2018 14:24:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.8941	.06317	-.00079	5.4477	.00070
Stddev	.0137	.00005	.00005	.0051	.00016
%RSD	.72224	.08178	5.9499	.09380	23.029

#1	1.9038	.06313	-.00076	5.4440	.00082
#2	1.8845	.06320	-.00082	5.4513	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00117	.32329	-.00364	-.00425	9.0373
Stddev	.00001	.00125	.00231	.00366	.0296
%RSD	.80731	.38671	63.576	86.209	.32711

#1	.00116	.32418	-.00200	-.00166	9.0583
#2	.00117	.32241	-.00527	-.00684	9.0164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.04451	.03800	.00214	.00058
Stddev	.00001	.00013	.00046	.00094	.00086
%RSD	3.7626	.28333	1.2036	43.971	149.35

#1	.00028	.04442	.03768	.00148	-.00003
#2	.00030	.04460	.03832	.00281	.00118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143884-b-6-a Acquired: 11/2/2018 14:24:37 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00872**
 Stddev .00016
 %RSD 1.7956

#1 **.00884**
 #2 **.00861**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3149.7	3080.8	24640.	3025.5
Stddev	4.9	1.9	32.	9.4
%RSD	.15669	.06111	.13077	.30946

#1	3146.2	3079.5	24663.	3032.2
#2	3153.2	3082.2	24618.	3018.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.88%	96.333%	98.037%	100.31%
Range				

Sample Name: 480-143696-y-1-a Acquired: 11/2/2018 14:28:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00138	.07658	.00801	4.5838	.62601
Stddev	.00030	.00773	.00021	.0062	.00239
%RSD	21.441	10.100	2.6573	.13427	.38258

#1	-.00159	.07111	.00816	4.5794	.62770
#2	-.00117	.08205	.00786	4.5881	.62431

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	154.60	.00057	-.0231	.00665
Stddev	.00012	.45	.00004	.0103	.00016
%RSD	134.55	.29219	7.6288	44.44	2.4598

#1	.00000	154.92	.00054	-.0159	.00653
#2	.00018	154.28	.00060	-.0304	.00676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01457	-.00121	5.6334	147.37	.09299
Stddev	.00014	.00009	.0298	.38	.00132
%RSD	.94603	7.8079	.52862	.25874	1.4218

#1	.01467	-.00127	5.6545	147.64	.09205
#2	.01447	-.00114	5.6123	147.10	.09392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143696-y-1-a Acquired: 11/2/2018 14:28:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	212.60	.24475	.00344	609.46	.06620
Stddev	.70	.00186	.00003	.63	.00033
%RSD	.33007	.76040	.84606	.10327	.50454

#1	213.10	.24607	.00346	609.90	.06644
#2	212.11	.24344	.00342	609.01	.06596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00312	33.485	-.00291	-.00484	15.952
Stddev	.00025	.010	.00037	.00350	.059
%RSD	7.9161	.02881	12.552	72.426	.37241

#1	.00329	33.492	-.00265	-.00731	15.994
#2	.00294	33.478	-.00317	-.00236	15.910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00105	1.5773	.00796	.00527	.00878
Stddev	.00039	.0059	.00039	.00264	.00023
%RSD	37.478	.37063	4.8694	50.144	2.5995

#1	.00077	1.5814	.00769	.00340	.00861
#2	.00132	1.5732	.00823	.00714	.00894

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143696-y-1-a Acquired: 11/2/2018 14:28:19 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00926**
 Stddev .00072
 %RSD 7.7959

#1 **.00875**
 #2 **.00977**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2849.0	2934.9	24861.	2924.2
Stddev	2.2	1.4	56.	9.4
%RSD	.07569	.04686	.22668	.32138

#1	2850.6	2935.9	24821.	2917.6
#2	2847.5	2933.9	24900.	2930.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.155%	91.770%	98.912%	96.946%
Range				

Sample Name: mb 480-441741/1-a Acquired: 11/2/2018 14:32:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	F -.04950	.00123	.00377	.00012
Stddev	.00018	.01151	.00237	.00032	.00001
%RSD	64.875	23.256	191.57	8.5334	11.574

#1	-.00041	-.05764	.00291	.00399	.00013
#2	-.00015	-.04136	-.00044	.00354	.00011

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.20000			
Low Limit		-.04000			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.01254	-.00023	.0168	.00016
Stddev	.00005	.00070	.00002	.0052	.00002
%RSD	60.517	5.5971	9.8175	30.70	9.3147

#1	-.00005	.01304	-.00021	.0205	.00015
#2	-.00012	.01204	-.00024	.0132	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	-.00078	.00567	-.00127	-.00050
Stddev	.00048	.00016	.00198	.04106	.00245
%RSD	78.993	19.980	34.963	3221.0	486.40

#1	.00095	-.00089	.00426	-.03031	-.00224
#2	.00027	-.00067	.00707	.02776	.00123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441741/1-a Acquired: 11/2/2018 14:32:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00637	-.00001	-.00084	.03641	.00029
Stddev	.00372	.00001	.00011	.00577	.00000
%RSD	58.391	86.394	12.958	15.860	.81714

#1	.00374	-.00002	-.00076	.04049	.00029
#2	.00900	-.00001	-.00092	.03233	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.00161	-.00323	-.00494	-.00779
Stddev	.00067	.00085	.00054	.00101	.02543
%RSD	397.22	52.442	16.670	20.505	326.40

#1	-.00064	.00221	-.00285	-.00566	-.02577
#2	.00030	.00101	-.00361	-.00422	.01019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00066	-.00008	.00106	.00218	-.00048
Stddev	.00056	.00008	.00018	.00027	.00054
%RSD	85.803	102.77	17.413	12.447	113.66

#1	.00105	-.00002	.00093	.00237	-.00009
#2	.00026	-.00014	.00119	.00199	-.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441741/1-a Acquired: 11/2/2018 14:32:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00204**
 Stddev .00032
 %RSD 15.778

#1 **.00181**
 #2 **.00227**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.0	3129.2	24819.	3027.2
Stddev	.4	2.4	44.	22.1
%RSD	.01335	.07575	.17866	.72975

#1	3151.7	3127.6	24850.	3011.6
#2	3152.3	3130.9	24788.	3042.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.96%	97.847%	98.746%	100.36%
Range				

Sample Name: lcs 480-441741/2-a Acquired: 11/2/2018 14:35:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04960	9.7496	.20435	.19409	.19321
Stddev	.00014	.0756	.00136	.00068	.00057
%RSD	.28704	.77567	.66684	.35174	.29258

#1	.04950	9.6961	.20532	.19361	.19361
#2	.04970	9.8031	.20339	.19457	.19281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20017	10.176	.20485	.0354	.19120
Stddev	.00163	.009	.00048	.0157	.00006
%RSD	.81549	.08503	.23192	44.24	.02885

#1	.19902	10.170	.20451	.0465	.19116
#2	.20132	10.182	.20518	.0243	.19124

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19648	.19439	10.123	9.4054	.18452
Stddev	.00009	.00136	.029	.0066	.00012
%RSD	.04711	.69978	.28318	.06966	.06581

#1	.19642	.19535	10.103	9.4101	.18460
#2	.19655	.19343	10.143	9.4008	.18443

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441741/2-a Acquired: 11/2/2018 14:35:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8453	.20120	.19063	9.2393	.19867
Stddev	.0379	.00064	.00079	.0408	.00005
%RSD	.38520	.31856	.41414	.44174	.02320

#1	9.8722	.20166	.19119	9.2104	.19864
#2	9.8185	.20075	.19007	9.2681	.19870

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19230	10.124	.19598	.19391	9.9996
Stddev	.00057	.008	.00075	.00099	.0603
%RSD	.29393	.08041	.38509	.51043	.60291

#1	.19270	10.118	.19651	.19461	9.9570
#2	.19190	10.130	.19545	.19321	10.042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19686	.20013	.20029	.18666	.19606
Stddev	.00071	.00072	.00022	.00056	.00175
%RSD	.36109	.35902	.11184	.30054	.89065

#1	.19736	.19962	.20014	.18705	.19729
#2	.19636	.20064	.20045	.18626	.19482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441741/2-a Acquired: 11/2/2018 14:35:45 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20702**
 Stddev .00154
 %RSD .74492

#1 **.20811**
 #2 **.20593**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3165.7	3101.9	24722.	3035.9
Stddev	2.8	1.2	65.	19.7
%RSD	.08776	.03915	.26195	.64879

#1	3163.8	3101.1	24676.	3049.9
#2	3167.7	3102.8	24767.	3022.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.40%	96.992%	98.359%	100.65%
Range				

Sample Name: 480-144318-a-1-a@5 Acquired: 11/2/2018 14:39:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00061	.03550	.00183	.07292	.00379
Stddev	.00018	.00952	.00054	.00044	.00005
%RSD	29.168	26.820	29.512	.59960	1.3499

#1	-.00074	.02877	.00145	.07323	.00375
#2	-.00049	.04223	.00221	.07261	.00382

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	6.5061	-.00001	.0116	.00121
Stddev	.00007	.0136	.00005	.0003	.00001
%RSD	80.223	.20924	529.39	2.314	1.0466

#1	.00014	6.4965	-.00004	.0118	.00120
#2	.00004	6.5157	.00003	.0114	.00122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21506	.47760	.13875	.28253	.00071
Stddev	.00079	.00297	.00461	.02067	.00096
%RSD	.36904	.62188	3.3215	7.3149	135.50

#1	.21450	.47970	.13549	.29714	.00139
#2	.21562	.47550	.14200	.26791	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144318-a-1-a@5 Acquired: 11/2/2018 14:39:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.6514	.00172	.00000	26.046	2.2367
Stddev	.0045	.00002	.00039	.025	.0010
%RSD	.27097	.92370	33154.	.09725	.04592

#1	1.6545	.00170	-.00028	26.028	2.2374
#2	1.6482	.00173	.00028	26.064	2.2360

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00307	6.0582	-.00079	-.00379	.67893
Stddev	.00097	.0072	.00058	.00082	.02359
%RSD	31.601	.11824	72.855	21.612	3.4752

#1	.00376	6.0532	-.00120	-.00436	.66224
#2	.00239	6.0633	-.00038	-.00321	.69561

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00123	.02981	.00069	.00232	-.00059
Stddev	.00016	.00007	.00010	.00069	.00057
%RSD	13.088	.25142	14.009	29.736	97.550

#1	.00112	.02976	.00062	.00281	-.00018
#2	.00135	.02986	.00076	.00183	-.00099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144318-a-1-a@5 Acquired: 11/2/2018 14:39:16 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.33915**
 Stddev .00184
 %RSD .54320

#1 **.34045**
 #2 **.33784**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3172.7	3094.5	24632.	2966.5
Stddev	2.5	1.2	65.	4.7
%RSD	.07824	.03986	.26405	.15750

#1	3171.0	3093.6	24586.	2963.2
#2	3174.5	3095.4	24677.	2969.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.63%	96.760%	98.001%	98.347%
Range				

Sample Name: 143786-1 SOL Acquired: 11/2/2018 14:42:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	-.06277	.00376	.14551	.04411
Stddev	.00029	.00806	.00163	.00003	.00008
%RSD	51.752	12.841	43.326	.02108	.18095

#1	-.00075	-.05707	.00492	.14549	.04417
#2	-.00035	-.06847	.00261	.14553	.04406

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	26.472	-.00031	.0243	.00048
Stddev	.00005	.037	.00013	.0326	.00000
%RSD	26.773	.13808	42.552	134.4	.81130

#1	.00014	26.498	-.00040	.0473	.00048
#2	.00021	26.446	-.00022	.0012	.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00070	.02072	1.2532	.00638
Stddev	.00002	.00019	.00403	.0488	.00070
%RSD	8.0799	27.271	19.457	3.8943	10.961

#1	.00027	-.00083	.02357	1.2877	.00688
#2	.00024	-.00056	.01787	1.2187	.00589

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143786-1 SOL Acquired: 11/2/2018 14:42:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	20.904	.01563	.00649	30.813	.00110
Stddev	.035	.00005	.00076	.030	.00028
%RSD	.16619	.30366	11.691	.09671	25.615

#1	20.879	.01560	.00703	30.792	.00090
#2	20.928	.01567	.00596	30.834	.00130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00096	5.0023	-.00403	-.00493	8.9133
Stddev	.00003	.0077	.00089	.00075	.0438
%RSD	2.6929	.15467	22.056	15.270	.49180

#1	.00098	5.0077	-.00340	-.00547	8.8823
#2	.00095	4.9968	-.00466	-.00440	8.9443

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00099	.74795	.00128	.00706	-.00081
Stddev	.00045	.00076	.00049	.00089	.00003
%RSD	45.254	.10147	37.886	12.592	4.0784

#1	.00131	.74849	.00094	.00643	-.00079
#2	.00067	.74742	.00163	.00769	-.00084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143786-1 SOL Acquired: 11/2/2018 14:42:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00062**
 Stddev .00004
 %RSD 6.2627

#1 **.00065**
 #2 **.00059**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3197.7	3143.3	25070.	3004.9
Stddev	17.4	13.9	119.	4.7
%RSD	.54538	.44230	.47651	.15653

#1	3210.0	3153.1	25155.	3001.6
#2	3185.4	3133.4	24986.	3008.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.43%	98.285%	99.746%	99.622%
Range				

Sample Name: BLANKL Acquired: 11/2/2018 14:46:34 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	-.04628	.00017	.00005	.00007
Stddev	.00032	.01249	.00012	.00036	.00004
%RSD	117.90	27.000	71.425	745.35	53.853

#1	-.00005	-.05511	.00009	-.00020	.00010
#2	-.00050	-.03744	.00026	.00030	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00150	-.00003	.0058	.00036
Stddev	.00005	.00046	.00012	.0320	.00016
%RSD	90.999	30.401	385.56	553.0	45.030

#1	.00002	.00183	.00005	-.0169	.00025
#2	.00010	.00118	-.00012	.0284	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.00191	.00195	-.02403	-.00055
Stddev	.00012	.00030	.00365	.07654	.00038
%RSD	48.501	15.885	186.96	318.58	68.286

#1	.00033	-.00169	.00454	.03010	-.00082
#2	.00016	-.00212	-.00063	-.07815	-.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANKL Acquired: 11/2/2018 14:46:34 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00076	-.00011	.00060	-.02710	.00030
Stddev	.00294	.00004	.00015	.01291	.00012
%RSD	386.20	41.096	24.415	47.639	38.869

#1	.00132	-.00014	.00050	-.03622	.00022
#2	-.00284	-.00008	.00071	-.01797	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	-.00330	-.00085	-.00499	-.01633
Stddev	.00061	.00049	.00218	.00185	.00447
%RSD	136.77	14.864	257.42	36.987	27.364

#1	.00001	-.00295	.00069	-.00630	-.01949
#2	.00088	-.00364	-.00239	-.00369	-.01317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.00007	.00095	.00231	-.00089
Stddev	.00055	.00008	.00009	.00003	.00008
%RSD	208.40	126.82	9.8813	1.4571	8.8033

#1	-.00013	.00001	.00088	.00233	-.00083
#2	.00066	.00013	.00101	.00228	-.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANKL Acquired: 11/2/2018 14:46:34 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00008**
 Stddev .00066
 %RSD 781.90

#1 **-.00038**
 #2 **.00055**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3120.8	3088.5	24482.	2990.9
Stddev	1.2	5.5	140.	10.6
%RSD	.03697	.17846	.57169	.35430

#1	3120.0	3084.6	24383.	2983.5
#2	3121.6	3092.4	24581.	2998.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.95%	96.572%	97.406%	99.158%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 14:50:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.54719	25.006	.51727	.49919	.50924
Stddev	.00106	.230	.00111	.00027	.00097
%RSD	.19446	.92137	.21548	.05476	.19069

#1	.54795	24.843	.51648	.49900	.50992
#2	.54644	25.169	.51806	.49938	.50855

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49954	25.866	.51894	-.0087	.49793
Stddev	.00226	.125	.00058	.0255	.00090
%RSD	.45273	.48338	.11134	294.8	.18011

#1	.49794	25.778	.51854	-.0267	.49729
#2	.50114	25.955	.51935	.0094	.49856

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50263	.51886	25.682	24.497	.48780
Stddev	.00145	.00017	.053	.100	.00129
%RSD	.28793	.03257	.20723	.40625	.26504

#1	.50160	.51898	25.644	24.427	.48688
#2	.50365	.51874	25.719	24.567	.48871

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 14:50:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.475	.52627	.49723	24.489	.49511
Stddev	.055	.00036	.00066	.179	.00046
%RSD	.21672	.06874	.13288	.73247	.09212

#1	25.514	.52652	.49770	24.363	.49478
#2	25.436	.52601	.49676	24.616	.49543

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49782	26.470	.50833	.51325	25.316
Stddev	.00173	.006	.00217	.00094	.232
%RSD	.34773	.02156	.42643	.18236	.91614

#1	.49660	26.474	.50679	.51392	25.152
#2	.49904	26.466	.50986	.51259	25.480

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.52057	.52034	.51497	.48366	.50212
Stddev	.00107	.00205	.00128	.00053	.00069
%RSD	.20546	.39350	.24797	.10989	.13696

#1	.51981	.51890	.51587	.48404	.50164
#2	.52132	.52179	.51407	.48329	.50261

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 14:50:19 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.50858**
 Stddev .00150
 %RSD .29491

#1 **.50752**
 #2 **.50964**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3120.1	3075.9	24685.	2996.7
Stddev	5.1	4.0	61.	23.2
%RSD	.16381	.12851	.24739	.77576
#1	3123.7	3078.7	24642.	3013.2
#2	3116.5	3073.1	24728.	2980.3

Sample Name: ccb-4975309 Acquired: 11/2/2018 14:53:45 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	-.05932	.00195	-.00010	.00003
Stddev	.00067	.00264	.00018	.00051	.00001
%RSD	90.907	4.4533	9.2060	489.11	18.090

#1	-.00121	-.06119	.00182	.00025	.00003
#2	-.00026	-.05746	.00207	-.00046	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	-.00214	-.00008	-.0264	.00015
Stddev	.00012	.00059	.00005	.0128	.00020
%RSD	223.90	27.524	64.380	48.43	130.01

#1	.00014	-.00256	-.00005	-.0174	.00001
#2	-.00003	-.00173	-.00012	-.0354	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00056	-.00149	.00208	.01156	-.00136
Stddev	.00028	.00057	.00412	.02999	.00048
%RSD	49.774	38.552	198.71	259.36	35.347

#1	.00036	-.00108	-.00084	.03277	-.00102
#2	.00076	-.00190	.00499	-.00964	-.00170

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 14:53:45 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00187	.00007	.00093	-.03528	.00017
Stddev	.00265	.00007	.00038	.00128	.00036
%RSD	141.51	99.049	40.977	3.6391	205.36

#1	-.00000	.00012	.00066	-.03437	.00043
#2	.00374	.00002	.00120	-.03619	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00170	-.00261	-.00016	-.00149
Stddev	.00064	.00033	.00017	.00186	.02778
%RSD	843.41	19.327	6.4131	1152.3	1870.9

#1	-.00053	-.00193	-.00249	.00116	-.02113
#2	.00038	-.00146	-.00273	-.00148	.01816

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.00004	.00054	-.00016	-.00050
Stddev	.00015	.00003	.00028	.00031	.00007
%RSD	103.79	83.813	52.355	198.55	13.114

#1	-.00004	.00006	.00034	.00006	-.00046
#2	-.00025	.00001	.00074	-.00038	-.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 14:53:45 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00016**
 Stddev .00049
 %RSD 298.83

#1 **.00051**
 #2 **-.00018**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3121.4	3076.9	24506.	2991.1
Stddev	6.7	1.8	102.	12.5
%RSD	.21530	.05909	.41774	.41774
#1	3116.6	3075.6	24434.	2999.9
#2	3126.1	3078.2	24578.	2982.2

Sample Name: ccvl-4970377 Acquired: 11/2/2018 14:57:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00575	.18058	.01774	.01940	.00210
Stddev	.00020	.04296	.00107	.00006	.00004
%RSD	3.4952	23.789	6.0390	.30754	1.7661

#1	.00589	.21096	.01850	.01944	.00208
#2	.00561	.15020	.01699	.01936	.00213

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00223	.54372	.00203	-.0138	.00430
Stddev	.00003	.00465	.00002	.0058	.00005
%RSD	1.3138	.85435	.77144	41.64	1.0641

#1	.00225	.54700	.00205	-.0179	.00427
#2	.00221	.54043	.00202	-.0097	.00433

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00394	.00900	.05171	.47119	.02804
Stddev	.00046	.00030	.00033	.09940	.00099
%RSD	11.616	3.3317	.63822	21.094	3.5371

#1	.00362	.00878	.05147	.54147	.02734
#2	.00426	.00921	.05194	.40091	.02874

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 14:57:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21048	.00311	.00949	.90455	.01046
Stddev	.00222	.00008	.00015	.00543	.00057
%RSD	1.0545	2.4791	1.5679	.60074	5.4322

#1	.21205	.00306	.00959	.90839	.01086
#2	.20891	.00316	.00938	.90070	.01005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01010	.20726	.01589	.02262	.49905
Stddev	.00103	.00183	.00047	.00101	.05284
%RSD	10.198	.88344	2.9518	4.4470	10.589

#1	.00937	.20856	.01556	.02191	.46168
#2	.01082	.20597	.01622	.02333	.53642

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01036	.00529	.00602	.01993	.00392
Stddev	.00026	.00002	.00023	.00157	.00043
%RSD	2.5323	.36844	3.8889	7.8772	10.837

#1	.01018	.00528	.00586	.02104	.00423
#2	.01055	.00531	.00619	.01882	.00362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 14:57:30 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01107**
 Stddev .00017
 %RSD 1.5629

#1 **.01095**
 #2 **.01119**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3139.2	3098.7	24551.	2998.5
Stddev	2.0	4.7	171.	25.8
%RSD	.06331	.15192	.69654	.86198
#1	3140.6	3102.1	24672.	3016.8
#2	3137.8	3095.4	24430.	2980.2

Sample Name: lb 480-442360/1-b Acquired: 11/2/2018 15:01:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	-.02686	.00387	.03096	.00252
Stddev	.00125	.03700	.00024	.00059	.00003
%RSD	182.39	137.76	6.1879	1.8932	1.2910

#1	.00020	-.05302	.00370	.03055	.00254
#2	-.00157	-.00070	.00404	.03137	.00250

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.83077	-.00011	.0079	.00009
Stddev	.00015	.00166	.00002	.0470	.00020
%RSD	98.928	.20019	15.704	592.9	225.80

#1	.00005	.82959	-.00013	.0411	-.00005
#2	.00026	.83195	-.00010	-.0253	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00021	.03287	.03283	-.00182
Stddev	.00052	.00042	.00070	.05580	.00060
%RSD	5193.4	199.44	2.1246	169.98	33.135

#1	.00036	.00051	.03238	.07228	-.00140
#2	-.00038	-.00009	.03336	-.00663	-.00225

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lb 480-442360/1-b Acquired: 11/2/2018 15:01:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.38128	.00205	-.00044	.32819	.00014
Stddev	.00407	.00004	.00025	.01488	.00006
%RSD	1.0684	2.0402	56.527	4.5326	41.175

#1	.38416	.00202	-.00027	.31767	.00010
#2	.37840	.00208	-.00062	.33871	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.02415	-.00105	.00224	-.00075
Stddev	.00021	.00276	.00115	.00065	.02797
%RSD	138.32	11.447	109.75	29.114	3706.8

#1	-.00000	.02219	-.00186	.00178	-.02053
#2	-.00030	.02610	-.00023	.00270	.01902

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.00067	.00067	-.00069	F -.00134
Stddev	.00022	.00009	.00026	.00053	.00063
%RSD	33.907	12.832	38.362	76.510	47.422

#1	.00049	.00061	.00049	-.00032	-.00179
#2	.00079	.00073	.00085	-.00107	-.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					.00500
Low Limit					-.00050

Sample Name: lb 480-442360/1-b Acquired: 11/2/2018 15:01:12 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01721**
 Stddev .00047
 %RSD 2.7171

#1 **.01754**
 #2 **.01688**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3173.6	3117.5	24960.	3068.7
Stddev	7.3	1.8	80.	23.6
%RSD	.22978	.05742	.32148	.76979

#1	3168.4	3116.2	25017.	3085.4
#2	3178.7	3118.7	24903.	3052.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.65%	97.478%	99.308%	101.73%
Range				

Sample Name: mb 480-442501/2-a Acquired: 11/2/2018 15:04:54 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	-.02749	.00120	-.00109	.00004
Stddev	.00014	.01316	.00129	.00018	.00010
%RSD	19.243	47.869	107.36	16.677	236.86

#1	-.00062	-.01819	.00029	-.00096	-.00003
#2	-.00081	-.03680	.00212	-.00122	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00607	.00003	.0290	.00012
Stddev	.00003	.00739	.00001	.0205	.00008
%RSD	27.515	121.87	48.707	70.77	61.316

#1	.00008	.01130	.00002	.0145	.00007
#2	.00011	.00084	.00004	.0435	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	-.00101	-.00121	-.01415	-.00127
Stddev	.00059	.00007	.00237	.04221	.00031
%RSD	298.12	6.4856	196.26	298.27	24.720

#1	-.00022	-.00096	-.00288	-.04400	-.00149
#2	.00061	-.00105	.00047	.01570	-.00105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-442501/2-a Acquired: 11/2/2018 15:04:54 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00501	.00112	-.00070	-.05892	-.00005
Stddev	.00317	.00003	.00023	.00519	.00012
%RSD	63.199	3.1309	32.373	8.8096	233.91

#1	.00277	.00114	-.00086	-.05525	-.00013
#2	.00725	.00109	-.00054	-.06259	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	-.00213	-.00246	-.00494	-.05092
Stddev	.00126	.00150	.00030	.00027	.03389
%RSD	188.53	70.430	12.338	5.4948	66.562

#1	.00022	-.00320	-.00224	-.00513	-.02695
#2	-.00156	-.00107	-.00267	-.00475	-.07489

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00007	.00063	.00208	F -.00055
Stddev	.00025	.00007	.00058	.00020	.00020
%RSD	263.21	100.13	92.546	9.4839	36.210

#1	.00008	.00011	.00104	.00194	-.00069
#2	-.00027	.00002	.00022	.00222	-.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					.00500
Low Limit					-.00050

Sample Name: mb 480-442501/2-a Acquired: 11/2/2018 15:04:54 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00273**
 Stddev .00019
 %RSD 7.0236

#1 **.00286**
 #2 **.00259**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3137.0	3110.0	24641.	3002.7
Stddev	.3	3.8	146.	31.3
%RSD	.00804	.12127	.59286	1.0428

#1	3137.1	3112.7	24745.	2980.5
#2	3136.8	3107.4	24538.	3024.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.47%	97.246%	98.040%	99.546%
Range				

Sample Name: lcs 480-442501/3-a Acquired: 11/2/2018 15:08:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0467	.00103	1.0603	.03116	.99487
Stddev	.0048	.00848	.0031	.00017	.00144
%RSD	.46056	822.87	.28889	.55633	.14519

#1	1.0433	-.00497	1.0581	.03129	.99385
#2	1.0501	.00703	1.0624	.03104	.99590

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0206	.81689	1.0495	.0096	.98504
Stddev	.0049	.00551	.0009	.0320	.00155
%RSD	.48014	.67475	.09000	334.7	.15692

#1	1.0172	.82079	1.0489	-.0131	.98395
#2	1.0241	.81299	1.0502	.0322	.98613

Check ?	Chk Pass	None	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0079	1.0060	.03042	.00527	-.00024
Stddev	.0026	.0086	.00045	.02924	.00093
%RSD	.25871	.85361	1.4735	555.07	384.52

#1	1.0060	.99995	.03010	-.01541	.00042
#2	1.0097	1.0121	.03074	.02595	-.00090

Check ?	Chk Pass	Chk Pass	None	None	None
High Limit					
Low Limit					

Sample Name: lcs 480-442501/3-a Acquired: 11/2/2018 15:08:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.37994	1.0130	1.0019	.31116	1.0163
Stddev	.00549	.0039	.0029	.00859	.0016
%RSD	1.4458	.38855	.28462	2.7620	.15677

#1	.37605	1.0102	1.0039	.30508	1.0152
#2	.38382	1.0158	.99991	.31724	1.0175

Check ?	None	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0099	.02389	1.0213	1.0382	-.01433
Stddev	.0027	.00055	.0028	.0007	.03158
%RSD	.27082	2.3155	.27228	.06582	220.33

#1	1.0080	.02349	1.0194	1.0387	-.03666
#2	1.0118	.02428	1.0233	1.0378	.00800

Check ?	Chk Pass	None	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00102	1.0675	.00093	.93555	1.0076
Stddev	.00045	.0018	.00062	.00022	.0011
%RSD	43.811	.16765	66.777	.02307	.10883

#1	.00070	1.0662	.00137	.93539	1.0068
#2	.00133	1.0687	.00049	.93570	1.0084

Check ?	None	None	None	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-442501/3-a Acquired: 11/2/2018 15:08:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **1.0301**
Stddev .0012
%RSD .11190

#1 1.0293
#2 1.0310

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.7	3067.2	24643.	3113.3
Stddev	1.8	5.8	38.	13.9
%RSD	.05852	.18884	.15419	.44798

#1	3154.0	3071.3	24669.	3123.2
#2	3151.4	3063.1	24616.	3103.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.98%	95.907%	98.045%	103.21%
Range				

Sample Name: 480-144275-e-2-d Acquired: 11/2/2018 15:12:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00106	-.00257	.00433	.10691	.48623
Stddev	.00077	.00246	.00071	.00074	.00156
%RSD	72.388	95.509	16.275	.69017	.32177

#1	-.00052	-.00431	.00384	.10639	.48734
#2	-.00161	-.00084	.00483	.10743	.48513

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	F 2144.6	-.00128	-.0299	.00030
Stddev	.00002	11.0	.00023	.0534	.00016
%RSD	28.667	.51452	17.892	178.5	54.628

#1	-.00009	2136.8	-.00111	.0078	.00018
#2	-.00006	2152.4	-.00144	-.0677	.00041

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02057	-.00321	.01812	17.573	.08879
Stddev	.00060	.00030	.00491	.057	.00347
%RSD	2.9084	9.4569	27.103	.32205	3.9114

#1	.02014	-.00299	.02159	17.613	.09124
#2	.02099	-.00342	.01465	17.533	.08633

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-e-2-d Acquired: 11/2/2018 15:12:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.878	.00113	.00427	13.013	.00090
Stddev	.097	.00004	.00046	.062	.00007
%RSD	.39048	3.1627	10.731	.47770	7.8384

#1	24.947	.00116	.00394	13.057	.00095
#2	24.810	.00111	.00459	12.969	.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00183	41.736	.00097	.00044	29.019
Stddev	.00102	.076	.00107	.00297	.247
%RSD	55.637	.18178	110.67	680.59	.85283

#1	-.00111	41.682	.00173	.00254	29.194
#2	-.00256	41.789	.00021	-.00166	28.844

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00167	3.9210	-.00423	.00325	.01981
Stddev	.00008	.0197	.00033	.00061	.00022
%RSD	4.9736	.50205	7.8090	18.756	1.1048

#1	.00161	3.9349	-.00399	.00281	.01996
#2	.00173	3.9071	-.00446	.00368	.01965

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-e-2-d Acquired: 11/2/2018 15:12:11 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00223**
 Stddev .00068
 %RSD 30.560

#1 **.00174**
 #2 **.00271**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2694.9	2752.4	23913.	2857.0
Stddev	1.9	5.0	97.	4.2
%RSD	.07205	.18029	.40385	.14579

#1	2696.3	2755.9	23844.	2859.9
#2	2693.5	2748.9	23981.	2854.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.170%	86.064%	95.141%	94.718%
Range				

Sample Name: 480-144275-c-3-c Acquired: 11/2/2018 15:15:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	.08795	.00461	.05265	1.5321
Stddev	.00038	.01945	.00076	.00016	.0048
%RSD	87.673	22.110	16.482	.31239	.31524

#1	-.00017	.07420	.00515	.05276	1.5355
#2	-.00070	.10170	.00407	.05253	1.5287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	F 1966.2	.00110	-.0772	.06039
Stddev	.00006	2.0	.00004	.0571	.00005
%RSD	594.98	.09986	3.4292	74.00	.07456

#1	.00005	1967.6	.00107	-.1175	.06043
#2	-.00003	1964.8	.00112	-.0368	.06036

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00242	.00891	.09968	50.495	.18653
Stddev	.00049	.00019	.00339	.146	.00441
%RSD	20.408	2.1004	3.3980	.29013	2.3633

#1	.00277	.00904	.10208	50.599	.18965
#2	.00207	.00878	.09729	50.392	.18342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-c-3-c Acquired: 11/2/2018 15:15:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.6081	.24897	.00193	31.309	.00599
Stddev	.0220	.00013	.00010	.089	.00017
%RSD	.47661	.05296	5.1012	.28537	2.7944

#1	4.5925	.24888	.00186	31.372	.00610
#2	4.6236	.24907	.00200	31.246	.00587

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02878	6.3469	-.00057	-.00266	13.367
Stddev	.00222	.0017	.00063	.00363	.056
%RSD	7.7020	.02664	111.85	136.26	.41972

#1	.02721	6.3457	-.00012	-.00010	13.407
#2	.03034	6.3481	-.00101	-.00523	13.327

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00144	F 29.385	.01212	.00211	.00060
Stddev	.00004	.233	.00210	.00029	.00008
%RSD	2.6927	.79137	17.318	13.625	13.477

#1	.00147	29.221	.01063	.00231	.00065
#2	.00141	29.550	.01360	.00191	.00054

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-144275-c-3-c Acquired: 11/2/2018 15:15:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 132.80**
 Stddev .75
 %RSD .56570

#1 133.33
 #2 132.27

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2693.7	2758.4	24052.	2898.0
Stddev	2.6	3.2	18.	3.3
%RSD	.09601	.11710	.07503	.11275

#1	2695.5	2760.7	24065.	2895.7
#2	2691.9	2756.1	24040.	2900.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.130%	86.252%	95.697%	96.076%
Range				

Sample Name: 480-144275-c-3-cSD@5 Acquired: 11/2/2018 15:19:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	-.02129	.00116	.00938	.31447
Stddev	.00104	.05193	.00132	.00066	.00062
%RSD	145.92	243.93	113.54	7.0062	.19833

#1	-.00145	.01543	.00210	.00892	.31403
#2	.00002	-.05801	.00023	.00985	.31491

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	425.44	.00024	.0078	.01206
Stddev	.00002	1.12	.00010	.0107	.00012
%RSD	16.885	.26297	41.035	138.4	.96072

#1	.00011	426.23	.00017	.0154	.01215
#2	.00008	424.64	.00031	.0002	.01198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.00122	.01746	9.3968	.02694
Stddev	.00034	.00052	.00459	.0106	.00091
%RSD	85.626	42.618	26.301	.11277	3.3653

#1	.00016	.00159	.01421	9.4043	.02758
#2	.00063	.00085	.02070	9.3893	.02630

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-c-3-cSD@5 Acquired: 11/2/2018 15:19:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.93997	.05130	-.00022	5.8367	.00151
Stddev	.01176	.00019	.00018	.0177	.00012
%RSD	1.2510	.36373	82.606	.30400	7.8358

#1	.93166	.05117	-.00009	5.8492	.00142
#2	.94829	.05143	-.00035	5.8241	.00159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00579	1.1845	-.00439	-.00378	2.6343
Stddev	.00078	.0004	.00146	.00377	.0234
%RSD	13.500	.02972	33.301	99.759	.88683

#1	.00524	1.1847	-.00335	-.00644	2.6508
#2	.00634	1.1842	-.00542	-.00111	2.6178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	6.0928	.00352	.00282	-.00024
Stddev	.00013	.0125	.00369	.00058	.00015
%RSD	28.915	.20571	104.70	20.541	62.613

#1	.00036	6.1016	.00613	.00241	-.00034
#2	.00054	6.0839	.00091	.00323	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-c-3-cSD@5 Acquired: 11/2/2018 15:19:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 36.318**
 Stddev .047
 %RSD .12977

#1 36.351
 #2 36.285

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3008.6	2950.6	24392.	2922.8
Stddev	1.2	.1	18.	15.8
%RSD	.03860	.00291	.07442	.54194

#1	3009.4	2950.6	24405.	2911.6
#2	3007.7	2950.7	24379.	2934.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.315%	92.262%	97.049%	96.900%
Range				

Sample Name: 480-144275-c-3-cPDS Acquired: 11/2/2018 15:23:35 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1472	.15012	1.1165	.05229	2.5306
Stddev	.0048	.05164	.0015	.00041	.0036
%RSD	.41622	34.402	.13272	.78344	.14099

#1	1.1438	.18664	1.1176	.05258	2.5331
#2	1.1506	.11360	1.1155	.05200	2.5281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.99116	F 1941.1	1.1491	.0254	1.0629
Stddev	.00207	4.2	.0014	.0238	.0004
%RSD	.20934	.21773	.12419	93.83	.04278

#1	.99262	1944.1	1.1501	.0423	1.0626
#2	.98969	1938.1	1.1481	.0085	1.0632

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.96067	1.2002	.09277	50.227	.18837
Stddev	.00028	.0064	.00192	.064	.00055
%RSD	.02904	.53062	2.0718	.12650	.29355

#1	.96048	1.1957	.09141	50.272	.18876
#2	.96087	1.2047	.09413	50.182	.18798

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-c-3-cPDS Acquired: 11/2/2018 15:23:35 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.5501	1.2665	1.0036	31.163	1.0004
Stddev	.0119	.0030	.0037	.066	.0001
%RSD	.26204	.23558	.36940	.21101	.00715

#1	4.5417	1.2644	1.0063	31.210	1.0005
#2	4.5585	1.2686	1.0010	31.117	1.0004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0951	6.3307	1.0863	1.1171	13.309
Stddev	.0001	.0105	.0019	.0075	.032
%RSD	.00912	.16561	.17372	.66911	.23877

#1	1.0951	6.3381	1.0877	1.1224	13.332
#2	1.0952	6.3233	1.0850	1.1118	13.287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00079	F 29.333	.01039	.98338	.98937
Stddev	.00063	.215	.00046	.00602	.00066
%RSD	78.916	.73356	4.4319	.61245	.06636

#1	.00124	29.485	.01072	.98764	.98891
#2	.00035	29.180	.01007	.97912	.98984

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-144275-c-3-cPDS Acquired: 11/2/2018 15:23:35 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 132.20**
 Stddev .68
 %RSD .51194

#1 131.72
 #2 132.68

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2696.7	2758.9	24135.	2923.3
Stddev	3.2	.5	65.	15.5
%RSD	.11860	.01631	.26821	.53148

#1	2698.9	2758.6	24181.	2912.4
#2	2694.4	2759.2	24090.	2934.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	87.226%	86.267%	96.027%	96.917%
Range				

Sample Name: 480-144275-c-3-d.ms Acquired: 11/2/2018 15:27:24 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1491	.14198	1.1702	.05356	2.5780
Stddev	.0035	.05915	.0012	.00014	.0002
%RSD	.30122	41.658	.09971	.25498	.00795

#1	1.1516	.18380	1.1710	.05346	2.5782
#2	1.1467	.10016	1.1693	.05366	2.5779

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0066	F 1996.5	1.1506	.0203	1.0726
Stddev	.0032	3.6	.0009	.0164	.0024
%RSD	.31580	.17879	.08026	80.69	.21873

#1	1.0088	1999.0	1.1499	.0087	1.0743
#2	1.0043	1994.0	1.1513	.0319	1.0709

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.95773	1.1884	.09483	51.338	.18997
Stddev	.00117	.0018	.00372	.034	.00061
%RSD	.12212	.14937	3.9223	.06572	.31937

#1	.95690	1.1896	.09220	51.314	.19040
#2	.95855	1.1871	.09746	51.362	.18954

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-c-3-d ms Acquired: 11/2/2018 15:27:24 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.6479	1.2307	1.0214	31.925	1.0305
Stddev	.0130	.0027	.0028	.066	.0012
%RSD	.28033	.21843	.27174	.20663	.11422

#1	4.6571	1.2326	1.0233	31.972	1.0313
#2	4.6387	1.2288	1.0194	31.878	1.0297

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0975	6.4617	1.1024	1.1437	13.735
Stddev	.0015	.0021	.0019	.0030	.019
%RSD	.13721	.03248	.17155	.26023	.13798

#1	1.0964	6.4602	1.1037	1.1416	13.749
#2	1.0985	6.4631	1.1011	1.1458	13.722

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00149	F 30.914	.00999	.98373	.99604
Stddev	.00075	.054	.00110	.00015	.00013
%RSD	50.804	.17608	10.984	.01526	.01270

#1	.00202	30.876	.01077	.98384	.99613
#2	.00095	30.953	.00922	.98363	.99595

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-144275-c-3-d ms Acquired: 11/2/2018 15:27:24 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 133.22**
 Stddev .74
 %RSD .55826

#1 132.70
 #2 133.75

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2689.1	2749.0	24132.	2918.0
Stddev	1.2	.3	49.	3.2
%RSD	.04604	.01251	.20500	.11056

#1	2690.0	2749.3	24167.	2920.3
#2	2688.2	2748.8	24097.	2915.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.982%	85.958%	96.014%	96.739%
Range				

Sample Name: 480-144275-c-3-e msd Acquired: 11/2/2018 15:31:13 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1525	.15763	1.1630	.05347	2.5710
Stddev	.0071	.01985	.0010	.00067	.0058
%RSD	.61989	12.590	.08832	1.2621	.22457

#1	1.1575	.17166	1.1638	.05395	2.5669
#2	1.1474	.14360	1.1623	.05299	2.5751

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0049	F 1985.9	1.1523	-.0112	1.0770
Stddev	.0019	4.3	.0003	.0166	.0013
%RSD	.18524	.21742	.02636	148.5	.11609

#1	1.0036	1982.9	1.1525	.0006	1.0761
#2	1.0062	1989.0	1.1521	-.0230	1.0778

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00			
Low Limit		-.50000			

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.95913	1.1913	.09463	51.447	.19392
Stddev	.00134	.0072	.00377	.172	.00266
%RSD	.13935	.60613	3.9851	.33345	1.3721

#1	.96008	1.1964	.09197	51.326	.19204
#2	.95819	1.1862	.09730	51.569	.19580

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144275-c-3-e msd Acquired: 11/2/2018 15:31:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.6867	1.2327	1.0205	31.858	1.0349
Stddev	.0310	.0055	.0041	.089	.0015
%RSD	.66114	.44505	.40599	.27927	.14535

#1	4.7086	1.2366	1.0234	31.795	1.0338
#2	4.6648	1.2288	1.0175	31.921	1.0360

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1040	6.5009	1.1006	1.1272	13.409
Stddev	.0001	.0009	.0041	.0028	.164
%RSD	.01002	.01316	.36951	.24581	1.2251

#1	1.1039	6.5003	1.1034	1.1252	13.293
#2	1.1041	6.5015	1.0977	1.1291	13.525

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00162	F 30.965	.00953	.98952	.99927
Stddev	.00015	.090	.00107	.00044	.00175
%RSD	9.1224	.29064	11.182	.04433	.17475

#1	.00151	30.901	.00877	.98921	1.0005
#2	.00172	31.028	.01028	.98983	.99804

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-144275-c-3-e msd Acquired: 11/2/2018 15:31:13 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **F 134.53**
 Stddev 1.10
 %RSD .81502

#1 135.30
 #2 133.75

Check ? **Chk Fail**
 High Limit **18.000**
 Low Limit **-.01000**

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2687.6	2756.2	24112.	2918.9
Stddev	4.5	2.1	140.	13.7
%RSD	.16925	.07767	.58225	.46998

#1	2690.8	2757.7	24013.	2928.6
#2	2684.3	2754.7	24212.	2909.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	86.932%	86.182%	95.935%	96.770%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 15:35:05 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56185	25.059	.52338	.49972	.51371
Stddev	.00157	.115	.00168	.00020	.00061
%RSD	.27962	.45930	.32065	.03955	.11879

#1	.56296	24.978	.52456	.49958	.51415
#2	.56074	25.141	.52219	.49986	.51328

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49915	26.297	.52282	.0118	.50071
Stddev	.00124	.047	.00094	.0529	.00022
%RSD	.24810	.17908	.18040	449.3	.04407

#1	.49828	26.330	.52216	-.0256	.50056
#2	.50003	26.264	.52349	.0492	.50087

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50440	.52938	25.970	24.650	.48869
Stddev	.00166	.00134	.017	.098	.00164
%RSD	.32846	.25371	.06359	.39940	.33604

#1	.50557	.53033	25.958	24.720	.48753
#2	.50323	.52843	25.982	24.581	.48985

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 15:35:05 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.870	.53178	.50050	24.396	.49751
Stddev	.087	.00214	.00090	.023	.00069
%RSD	.33805	.40266	.18041	.09597	.13871

#1	25.932	.53330	.50113	24.379	.49799
#2	25.808	.53027	.49986	24.412	.49702

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50439	26.793	.51496	.51814	25.593
Stddev	.00305	.001	.00324	.00123	.059
%RSD	.60455	.00486	.62894	.23813	.23231

#1	.50655	26.794	.51725	.51726	25.635
#2	.50223	26.792	.51267	.51901	25.551

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.52629	.52106	.52038	.48329	.50131
Stddev	.00124	.00084	.00207	.00011	.00176
%RSD	.23575	.16135	.39762	.02348	.35079

#1	.52716	.52165	.52184	.48321	.50256
#2	.52541	.52047	.51892	.48337	.50007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 15:35:05 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51455**
 Stddev .00294
 %RSD .57075

#1 **.51662**
 #2 **.51247**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3125.2	3075.0	24545.	2989.8
Stddev	3.7	2.5	71.	3.2
%RSD	.11758	.08098	.28944	.10705
#1	3122.6	3073.2	24495.	2987.6
#2	3127.8	3076.7	24595.	2992.1

Sample Name: ccb-4975309 Acquired: 11/2/2018 15:38:32 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.04024	.00225	-.00098	.00006
Stddev	.00023	.02266	.00193	.00011	.00005
%RSD	1559.2	56.311	85.554	11.492	78.150

#1	-.00015	-.05626	.00089	-.00106	.00009
#2	.00017	-.02422	.00361	-.00090	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00404	.00023	.0388	.00003
Stddev	.00006	.00237	.00015	.0598	.00025
%RSD	677.93	58.596	64.182	154.2	782.44

#1	.00003	.00571	.00012	-.0035	.00020
#2	-.00005	.00237	.00033	.0810	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.00162	-.00052	.01565	-.00148
Stddev	.00010	.00043	.00003	.05641	.00012
%RSD	31.031	26.311	5.1350	360.42	8.3327

#1	.00025	-.00132	-.00054	.05554	-.00140
#2	.00039	-.00192	-.00050	-.02424	-.00157

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 15:38:32 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00123	.00006	.00196	-.02100	.00004
Stddev	.00227	.00001	.00019	.00564	.00016
%RSD	184.66	17.559	9.7308	26.872	408.94

#1	.00284	.00006	.00182	-.01701	.00015
#2	-.00038	.00005	.00209	-.02499	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00083	-.00083	-.00085	-.00266	-.01229
Stddev	.00006	.00068	.00015	.00047	.01938
%RSD	7.7183	81.883	18.010	17.692	157.66

#1	-.00078	-.00132	-.00096	-.00299	.00141
#2	-.00087	-.00035	-.00075	-.00232	-.02599

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	-.00012	.00029	.00047	-.00068
Stddev	.00060	.00008	.00051	.00021	.00050
%RSD	361.44	66.934	172.61	44.101	73.372

#1	.00026	-.00006	-.00006	.00062	-.00104
#2	-.00059	-.00017	.00065	.00032	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 15:38:32 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00124**
 Stddev .00021
 %RSD 16.591

#1 **.00110**
 #2 **.00139**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.6	3090.8	24527.	2984.4
Stddev	1.4	4.0	72.	2.7
%RSD	.04427	.12991	.29263	.09117
#1	3137.6	3087.9	24578.	2982.5
#2	3139.6	3093.6	24477.	2986.3

Sample Name: ccvl-4970377 Acquired: 11/2/2018 15:45:28 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00578	.15274	.01685	.01853	.00210
Stddev	.00097	.04856	.00008	.00013	.00003
%RSD	16.712	31.794	.47879	.69340	1.4311

#1	.00510	.18707	.01691	.01862	.00207
#2	.00646	.11840	.01679	.01844	.00212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00215	.57048	.00219	.0140	.00431
Stddev	.00007	.00119	.00006	.0157	.00013
%RSD	3.1037	.20940	2.9377	111.8	2.9787

#1	.00210	.56963	.00215	.0251	.00440
#2	.00219	.57132	.00224	.0029	.00422

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00358	.00831	.05417	.49136	.02913
Stddev	.00007	.00040	.00536	.02148	.00193
%RSD	1.8990	4.7780	9.8885	4.3707	6.6160

#1	.00354	.00803	.05038	.50654	.02776
#2	.00363	.00859	.05796	.47617	.03049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 15:45:28 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20480	.00303	.00983	.93214	.01062
Stddev	.00010	.00002	.00011	.00707	.00045
%RSD	.05021	.82151	1.1386	.75804	4.2822

#1	.20487	.00302	.00975	.92714	.01030
#2	.20472	.00305	.00991	.93713	.01094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01023	.20781	.01939	.02172	.50743
Stddev	.00134	.00097	.00071	.00120	.00462
%RSD	13.104	.46826	3.6668	5.5024	.91012

#1	.00929	.20850	.01889	.02257	.51070
#2	.01118	.20712	.01989	.02088	.50417

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01063	.00540	.00557	.02145	.00448
Stddev	.00024	.00005	.00005	.00106	.00004
%RSD	2.2616	1.0161	.91317	4.9508	.86256

#1	.01046	.00536	.00554	.02221	.00451
#2	.01080	.00544	.00561	.02070	.00445

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 15:45:28 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01282**
 Stddev .00075
 %RSD 5.8428

#1 **.01229**
 #2 **.01335**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3159.7	3104.7	24572.	2975.0
Stddev	2.5	.1	54.	21.4
%RSD	.07834	.00192	.21825	.71834
#1	3157.9	3104.8	24534.	2990.1
#2	3161.4	3104.7	24610.	2959.9

Sample Name: mb 480-441501/1-a Acquired: 11/2/2018 15:49:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	F -.04108	.00067	-.00141	.00004
Stddev	.00059	.00140	.00084	.00052	.00000
%RSD	73.693	3.3968	124.62	36.754	3.3577

#1	-.00038	-.04009	.00127	-.00178	.00004
#2	-.00122	-.04206	.00008	-.00105	.00004

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.20000			
Low Limit		-.04000			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.01108	-.00003	.0111	.00037
Stddev	.00001	.00877	.00000	.0239	.00010
%RSD	9.0419	79.152	3.3702	214.8	28.023

#1	.00012	.00488	-.00003	-.0058	.00044
#2	.00011	.01728	-.00003	.0280	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00079	.00262	-.01255	-.00021
Stddev	.00036	.00021	.00144	.01437	.00096
%RSD	138.16	26.353	54.881	114.44	458.47

#1	.00052	-.00094	.00160	-.00240	.00047
#2	.00001	-.00064	.00363	-.02271	-.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441501/1-a Acquired: 11/2/2018 15:49:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00219	.00037	-.00035	-.02781	.00055
Stddev	.00552	.00002	.00001	.00156	.00008
%RSD	251.97	5.5740	3.3114	5.5977	14.207

#1	-.00171	.00038	-.00034	-.02671	.00061
#2	.00610	.00035	-.00036	-.02891	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00088	-.00171	-.00079	-.00555	-.00801
Stddev	.00029	.00022	.00121	.00281	.00539
%RSD	32.579	12.911	153.79	50.678	67.242

#1	-.00108	-.00187	.00007	-.00356	-.01182
#2	-.00067	-.00156	-.00165	-.00754	-.00420

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00012	.00026	.00191	-.00095
Stddev	.00009	.00019	.00058	.00027	.00004
%RSD	48.842	167.70	225.31	14.026	4.4817

#1	.00012	.00025	-.00015	.00172	-.00098
#2	.00026	-.00002	.00067	.00210	-.00092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441501/1-a Acquired: 11/2/2018 15:49:09 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00177**
 Stddev .00044
 %RSD 24.888

#1 **.00208**
 #2 **.00146**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.6	3107.3	24718.	3041.8
Stddev	.4	.6	23.	9.0
%RSD	.01374	.01781	.09448	.29486

#1	3153.9	3106.9	24702.	3035.5
#2	3153.3	3107.6	24735.	3048.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.01%	97.159%	98.347%	100.84%
Range				

Sample Name: lcs 480-441501/2-a Acquired: 11/2/2018 15:52:51 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05157	10.014	.20708	.19434	.19712
Stddev	.00073	.054	.00010	.00028	.00034
%RSD	1.4139	.53623	.04760	.14259	.17484

#1	.05208	9.9756	.20701	.19414	.19737
#2	.05105	10.052	.20715	.19453	.19688

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19897	10.325	.20785	-.0089	.19196
Stddev	.00025	.024	.00008	.0527	.00006
%RSD	.12745	.23391	.03734	591.0	.02950

#1	.19879	10.308	.20790	-.0462	.19200
#2	.19915	10.342	.20779	.0283	.19192

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19637	.19696	10.259	9.5430	.18617
Stddev	.00003	.00114	.018	.0307	.00005
%RSD	.01717	.57965	.17792	.32194	.02698

#1	.19640	.19615	10.246	9.5648	.18620
#2	.19635	.19777	10.272	9.5213	.18613

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441501/2-a Acquired: 11/2/2018 15:52:51 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.9433	.20224	.19010	9.3011	.19785
Stddev	.0351	.00044	.00059	.0416	.00019
%RSD	.35269	.21963	.30842	.44736	.09541

#1	9.9185	.20192	.19052	9.3305	.19798
#2	9.9681	.20255	.18969	9.2717	.19771

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19349	10.588	.19995	.19734	10.236
Stddev	.00123	.016	.00081	.00232	.027
%RSD	.63626	.14689	.40649	1.1770	.26224

#1	.19436	10.577	.19937	.19899	10.255
#2	.19262	10.599	.20052	.19570	10.217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20616	.20402	.20279	.18616	.19499
Stddev	.00008	.00031	.00089	.00120	.00019
%RSD	.04052	.15300	.43764	.64402	.09746

#1	.20610	.20424	.20216	.18701	.19513
#2	.20622	.20380	.20342	.18532	.19486

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441501/2-a Acquired: 11/2/2018 15:52:51 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20725**
 Stddev .00155
 %RSD .74588

#1 **.20616**
 #2 **.20834**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.8	3085.4	24658.	3025.1
Stddev	5.7	4.8	165.	7.0
%RSD	.17925	.15478	.66794	.23213

#1	3176.8	3082.0	24774.	3030.0
#2	3184.9	3088.8	24541.	3020.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.89%	96.476%	98.106%	100.29%
Range				

Sample Name: 480-143988-a-2-a Acquired: 11/2/2018 15:56:23 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00057	-.07073	.00229	.00076	.00481
Stddev	.00083	.00899	.00078	.00045	.00002
%RSD	146.13	12.709	33.946	59.891	.46916

#1	-.00116	-.07709	.00284	.00044	.00483
#2	.00002	-.06438	.00174	.00108	.00479

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	35.087	.00455	.0592	.00027
Stddev	.00015	.134	.00009	.0154	.00011
%RSD	420.54	.38058	2.0138	26.10	40.433

#1	.00014	35.181	.00461	.0701	.00034
#2	-.00007	34.992	.00448	.0483	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00219	.00040	.02283	1.3479	-.00108
Stddev	.00055	.00023	.00239	.0015	.00134
%RSD	25.223	56.582	10.456	.11172	123.98

#1	.00258	.00024	.02452	1.3468	-.00203
#2	.00180	.00056	.02114	1.3490	-.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-a Acquired: 11/2/2018 15:56:23 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0546	.00141	.00567	.21391	.00047
Stddev	.0009	.00006	.00006	.00146	.00015
%RSD	.08849	4.0599	1.0987	.68117	31.064

#1	1.0553	.00145	.00571	.21288	.00037
#2	1.0540	.00137	.00562	.21494	.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00076	.88279	-.00051	-.00562	.48017
Stddev	.00016	.00021	.00072	.00176	.00387
%RSD	20.587	.02416	141.95	31.234	.80606

#1	.00065	.88264	-.00102	-.00438	.48291
#2	.00087	.88294	.00000	-.00687	.47744

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.02337	.00076	.00321	-.00054
Stddev	.00007	.00012	.00051	.00158	.00016
%RSD	62.139	.50111	66.423	49.048	29.637

#1	-.00006	.02345	.00112	.00210	-.00065
#2	-.00016	.02329	.00040	.00433	-.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-a Acquired: 11/2/2018 15:56:23 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00556**
 Stddev .00049
 %RSD 8.8755

#1 **.00591**
 #2 **.00521**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3164.5	3080.9	24818.	3051.1
Stddev	6.8	7.9	69.	11.4
%RSD	.21341	.25685	.27776	.37372

#1	3169.3	3086.5	24769.	3043.1
#2	3159.7	3075.3	24867.	3059.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.36%	96.335%	98.743%	101.15%
Range				

Sample Name: 480-143988-a-2-aSD@5 Acquired: 11/2/2018 16:00:04 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	-.02372	.00215	-.00038	.00119
Stddev	.00043	.05370	.00161	.00006	.00002
%RSD	298.73	226.42	75.072	16.785	1.9783

#1	.00016	-.06169	.00101	-.00033	.00117
#2	-.00045	.01426	.00329	-.00042	.00121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	7.1995	.00077	-.0056	.00025
Stddev	.00010	.0101	.00003	.0029	.00012
%RSD	75.080	.13957	3.7477	51.24	47.893

#1	.00020	7.2066	.00075	-.0036	.00017
#2	.00006	7.1924	.00079	-.0077	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00083	.00517	.25037	-.00186
Stddev	.00060	.00007	.00000	.03397	.00002
%RSD	467.48	9.0252	.04965	13.567	1.3000

#1	-.00030	-.00078	.00517	.27439	-.00184
#2	.00055	-.00088	.00517	.22635	-.00188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-aSD@5 Acquired: 11/2/2018 16:00:04 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21133	.00020	.00044	.01068	.00067
Stddev	.00442	.00000	.00004	.00178	.00012
%RSD	2.0912	1.4116	9.1311	16.642	18.507

#1	.21445	.00021	.00047	.01194	.00076
#2	.20820	.00020	.00041	.00942	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	.17479	-.00230	-.00262	.06937
Stddev	.00108	.00058	.00004	.00307	.01866
%RSD	348.26	.32935	1.6474	117.14	26.900

#1	.00045	.17439	-.00227	-.00479	.05618
#2	-.00108	.17520	-.00233	-.00045	.08256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.00476	-.00009	.00289	-.00096
Stddev	.00089	.00005	.00089	.00117	.00018
%RSD	682.30	1.1135	951.13	40.592	18.524

#1	.00076	.00472	.00053	.00206	-.00083
#2	-.00050	.00479	-.00072	.00372	-.00109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-aSD@5 Acquired: 11/2/2018 16:00:04 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00194**
 Stddev .00041
 %RSD 21.076

#1 **.00165**
 #2 **.00223**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.8	3095.2	24696.	3006.5
Stddev	3.0	1.2	1.	33.9
%RSD	.09436	.03961	.00274	1.1283

#1	3151.7	3094.4	24697.	2982.5
#2	3155.9	3096.1	24696.	3030.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.01%	96.784%	98.259%	99.673%
Range				

Sample Name: 480-143988-a-2-aPDS Acquired: 11/2/2018 16:03:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05241	10.199	.20759	.20327	.20782
Stddev	.00088	.036	.00113	.00013	.00002
%RSD	1.6789	.34854	.54443	.06200	.01100

#1	.05179	10.224	.20679	.20318	.20781
#2	.05303	10.174	.20839	.20336	.20784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20151	44.132	.21543	-.0065	.19424
Stddev	.00053	.078	.00002	.0185	.00009
%RSD	.26407	.17749	.01101	286.1	.04802

#1	.20188	44.187	.21544	-.0195	.19431
#2	.20113	44.076	.21541	.0066	.19417

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19964	.20281	10.313	11.150	.19195
Stddev	.00041	.00199	.020	.043	.00196
%RSD	.20765	.98279	.18905	.38851	1.0214

#1	.19994	.20140	10.327	11.180	.19333
#2	.19935	.20422	10.299	11.119	.19056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-aPDS Acquired: 11/2/2018 16:03:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.109	.20461	.19881	9.7667	.20062
Stddev	.044	.00134	.00032	.0076	.00079
%RSD	.39639	.65304	.16022	.07761	.39420

#1	11.078	.20367	.19903	9.7721	.20006
#2	11.140	.20556	.19858	9.7613	.20118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19613	11.640	.18950	.19631	10.935
Stddev	.00018	.006	.00342	.00036	.022
%RSD	.09011	.04790	1.8030	.18274	.19933

#1	.19625	11.644	.19192	.19656	10.920
#2	.19600	11.636	.18708	.19605	10.950

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21039	.23082	.20513	.19091	.19705
Stddev	.00104	.00022	.00074	.00086	.00084
%RSD	.49221	.09717	.36078	.45118	.42704

#1	.21112	.23067	.20461	.19031	.19764
#2	.20966	.23098	.20565	.19152	.19645

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-aPDS Acquired: 11/2/2018 16:03:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21081**
 Stddev .00013
 %RSD .06164

#1 **.21090**
 #2 **.21072**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3143.0	3054.3	24707.	3048.0
Stddev	4.9	4.9	28.	19.3
%RSD	.15650	.16102	.11434	.63155

#1	3146.5	3057.8	24727.	3034.4
#2	3139.5	3050.8	24687.	3061.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.66%	95.503%	98.301%	101.05%
Range				

Sample Name: 480-143988-a-2-b ms Acquired: 11/2/2018 16:07:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05143	9.9611	.20588	.19560	.19972
Stddev	.00020	.0448	.00119	.00068	.00001
%RSD	.38177	.44976	.57831	.35017	.00422

#1	.05157	9.9928	.20672	.19512	.19972
#2	.05129	9.9294	.20504	.19609	.19971

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19685	45.653	.21021	.0039	.18841
Stddev	.00004	.046	.00011	.0187	.00050
%RSD	.01807	.10020	.05454	485.8	.26564

#1	.19687	45.685	.21012	-.0094	.18876
#2	.19682	45.620	.21029	.0171	.18806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19564	.19736	10.054	10.818	.18742
Stddev	.00011	.00038	.020	.016	.00098
%RSD	.05753	.19151	.20216	.14614	.52249

#1	.19572	.19709	10.040	10.807	.18811
#2	.19556	.19763	10.069	10.829	.18672

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-b ms Acquired: 11/2/2018 16:07:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.857	.19867	.19532	9.4458	.19488
Stddev	.008	.00016	.00064	.0028	.00016
%RSD	.07498	.07957	.32888	.02919	.08096

#1	10.852	.19856	.19577	9.4478	.19499
#2	10.863	.19878	.19487	9.4439	.19477

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19188	11.433	.20035	.19175	10.638
Stddev	.00037	.004	.00062	.00084	.023
%RSD	.19231	.03177	.30719	.44054	.21267

#1	.19162	11.430	.19992	.19115	10.654
#2	.19214	11.435	.20079	.19234	10.622

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20454	.22487	.19832	.18337	.19191
Stddev	.00111	.00033	.00205	.00008	.00012
%RSD	.54412	.14525	1.0321	.04277	.06220

#1	.20375	.22464	.19688	.18331	.19183
#2	.20533	.22510	.19977	.18342	.19200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-b ms Acquired: 11/2/2018 16:07:17 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20459**
 Stddev .00044
 %RSD .21502

#1 **.20490**
 #2 **.20428**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3148.6	3055.0	24642.	3032.4
Stddev	5.2	6.1	10.	2.7
%RSD	.16669	.20084	.04074	.08799

#1	3152.4	3059.4	24635.	3030.6
#2	3144.9	3050.7	24649.	3034.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.85%	95.526%	98.044%	100.53%
Range				

Sample Name: 480-143988-a-2-c msd Acquired: 11/2/2018 16:10:48 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05053	9.7330	.20756	.19441	.19717
Stddev	.00036	.0003	.00100	.00011	.00037
%RSD	.71323	.00285	.47939	.05611	.18588

#1	.05028	9.7328	.20686	.19449	.19691
#2	.05079	9.7332	.20827	.19433	.19743

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19715	44.539	.21061	-.0268	.18885
Stddev	.00023	.009	.00015	.0383	.00005
%RSD	.11545	.01922	.07262	143.1	.02384

#1	.19731	44.533	.21072	-.0539	.18882
#2	.19698	44.545	.21050	.0003	.18888

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19528	.19611	10.027	10.656	.18445
Stddev	.00005	.00058	.007	.031	.00069
%RSD	.02395	.29442	.07321	.28633	.37377

#1	.19525	.19571	10.033	10.634	.18493
#2	.19532	.19652	10.022	10.677	.18396

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-c msd Acquired: 11/2/2018 16:10:48 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.835	.19847	.19541	9.3728	.19532
Stddev	.008	.00003	.00043	.0493	.00021
%RSD	.06939	.01388	.21906	.52654	.10992

#1	10.840	.19845	.19571	9.4077	.19517
#2	10.830	.19849	.19511	9.3379	.19547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19221	11.274	.19994	.19398	10.429
Stddev	.00098	.003	.00172	.00188	.005
%RSD	.50983	.02975	.85967	.97044	.05000

#1	.19290	11.276	.19873	.19531	10.425
#2	.19151	11.271	.20116	.19265	10.432

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20223	.22100	.19921	.18338	.19192
Stddev	.00085	.00017	.00017	.00007	.00050
%RSD	.42120	.07909	.08712	.03835	.26204

#1	.20283	.22112	.19909	.18343	.19227
#2	.20163	.22088	.19933	.18333	.19156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-2-c msd Acquired: 11/2/2018 16:10:48 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20416**
 Stddev .00089
 %RSD .43530

#1 **.20479**
 #2 **.20353**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3145.0	3057.2	24676.	3044.8
Stddev	.5	2.4	7.	8.9
%RSD	.01699	.07918	.02855	.29121

#1	3145.4	3055.5	24671.	3051.1
#2	3144.6	3058.9	24681.	3038.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.73%	95.593%	98.178%	100.94%
Range				

Sample Name: 480-143988-a-3-a Acquired: 11/2/2018 16:14:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	-.02107	.00098	.00326	.05603
Stddev	.00108	.02102	.00093	.00007	.00000
%RSD	292.38	99.770	94.851	2.0654	.00683

#1	.00039	-.03594	.00032	.00330	.05604
#2	-.00113	-.00621	.00163	.00321	.05603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	22.222	.21142	-.0121	.00063
Stddev	.00001	.059	.00014	.0224	.00016
%RSD	10.625	.26638	.06496	185.1	25.099

#1	.00013	22.180	.21133	.0037	.00052
#2	.00011	22.264	.21152	-.0279	.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.00086	.00293	2.9214	.00090
Stddev	.00018	.00040	.00353	.0024	.00074
%RSD	22.936	46.967	120.61	.08136	83.014

#1	.00064	.00114	.00043	2.9197	.00037
#2	.00089	.00057	.00542	2.9231	.00142

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-3-a Acquired: 11/2/2018 16:14:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.3863	.01176	.00077	1.7169	.00074
Stddev	.0032	.00002	.00035	.0184	.00005
%RSD	.23346	.18819	45.622	1.0703	6.8969

#1	1.3886	.01174	.00052	1.7039	.00070
#2	1.3840	.01177	.00102	1.7299	.00077

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00094	4.3314	-.00096	-.00286	4.7393
Stddev	.00093	.0126	.00021	.00084	.0080
%RSD	98.971	.29134	22.090	29.518	.16829

#1	.00028	4.3403	-.00081	-.00346	4.7336
#2	.00159	4.3225	-.00111	-.00226	4.7449

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.07411	-.00001	.00256	-.00045
Stddev	.00007	.00006	.00026	.00129	.00018
%RSD	33.850	.08087	3421.4	50.266	40.096

#1	.00015	.07415	.00018	.00348	-.00058
#2	.00024	.07407	-.00019	.00165	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-3-a Acquired: 11/2/2018 16:14:20 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.17122**
 Stddev .00087
 %RSD .50592

#1 **.17061**
 #2 **.17183**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3175.6	3079.0	24623.	3036.1
Stddev	4.3	1.0	66.	3.1
%RSD	.13546	.03269	.26718	.10115

#1	3178.6	3078.3	24670.	3038.2
#2	3172.5	3079.7	24577.	3033.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.72%	96.277%	97.968%	100.65%
Range				

Sample Name: 480-143988-b-4-a Acquired: 11/2/2018 16:17:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	-.02261	.00876	.00410	.02387
Stddev	.00031	.03264	.00032	.00001	.00009
%RSD	166.92	144.35	3.7007	.29767	.37221

#1	.00003	-.04569	.00899	.00411	.02381
#2	-.00041	.00047	.00853	.00409	.02394

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	21.314	.22866	.0073	.00226
Stddev	.00012	.026	.00030	.0163	.00002
%RSD	95.500	.12209	.13248	222.2	.86819

#1	.00004	21.295	.22845	.0189	.00225
#2	.00021	21.332	.22888	-.0042	.00228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00063	-.00116	.53978	2.5817	-.00038
Stddev	.00047	.00048	.00614	.0617	.00107
%RSD	73.662	41.059	1.1371	2.3894	283.97

#1	.00096	-.00150	.54412	2.5381	-.00113
#2	.00030	-.00082	.53544	2.6253	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-b-4-a Acquired: 11/2/2018 16:17:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.0600	.06942	.01163	12.341	.00092
Stddev	.0073	.00008	.00004	.006	.00024
%RSD	.69132	.12206	.35170	.04579	26.154

#1	1.0548	.06936	.01165	12.345	.00075
#2	1.0652	.06948	.01160	12.337	.00109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	2.7852	.00392	-.00410	3.6515
Stddev	.00121	.0054	.00007	.00053	.0185
%RSD	766.74	.19461	1.8058	13.030	.50584

#1	.00101	2.7813	.00387	-.00448	3.6645
#2	-.00070	2.7890	.00397	-.00372	3.6384

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.04393	.00053	.00267	-.00015
Stddev	.00003	.00000	.00026	.00082	.00034
%RSD	25.256	.00529	49.153	30.846	231.37

#1	.00015	.04393	.00035	.00209	.00009
#2	.00010	.04393	.00072	.00325	-.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-b-4-a Acquired: 11/2/2018 16:17:59 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.10336**
 Stddev .00022
 %RSD .21468

#1 **.10320**
 #2 **.10351**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3173.9	3066.4	24658.	3029.6
Stddev	.6	.1	2.	11.1
%RSD	.01801	.00412	.00904	.36546

#1	3174.3	3066.5	24659.	3021.8
#2	3173.5	3066.3	24656.	3037.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.66%	95.881%	98.105%	100.44%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 16:21:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56617	25.421	.52374	.50428	.51713
Stddev	.00119	.018	.00117	.00162	.00065
%RSD	.21075	.07233	.22253	.32157	.12499

#1	.56533	25.434	.52291	.50314	.51667
#2	.56702	25.408	.52456	.50543	.51759

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50230	26.562	.52928	-.0003	.50272
Stddev	.00099	.150	.00053	.0004	.00051
%RSD	.19678	.56579	.09927	115.8	.10182

#1	.50300	26.669	.52891	-.0001	.50235
#2	.50161	26.456	.52965	-.0006	.50308

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50637	.53396	26.216	24.749	.49157
Stddev	.00108	.00181	.089	.044	.00233
%RSD	.21354	.33936	.34060	.17893	.47346

#1	.50713	.53268	26.279	24.780	.49322
#2	.50560	.53524	26.153	24.718	.48992

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 16:21:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.051	.53434	.50014	24.575	.49941
Stddev	.009	.00081	.00103	.020	.00090
%RSD	.03523	.15198	.20613	.08277	.18009

#1	26.044	.53377	.50087	24.589	.49877
#2	26.057	.53492	.49941	24.560	.50004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50619	27.161	.51840	.51854	25.801
Stddev	.00214	.006	.00227	.00294	.006
%RSD	.42260	.02320	.43693	.56604	.02450

#1	.50468	27.166	.52000	.52062	25.796
#2	.50770	27.157	.51680	.51647	25.805

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.52872	.52638	.52390	.48558	.50121
Stddev	.00106	.00138	.00039	.00055	.00201
%RSD	.20096	.26150	.07493	.11413	.40052

#1	.52797	.52736	.52418	.48519	.50263
#2	.52947	.52541	.52362	.48597	.49979

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 16:21:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062
Line	206.200 {163}
Units	ppm
Avg	.51144
Stddev	.00386
%RSD	.75485

#1	.50871
#2	.51417

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3129.9	3057.6	24476.	2982.2
Stddev	1.9	1.5	11.	24.1
%RSD	.06018	.04918	.04408	.80796
#1	3131.2	3056.5	24483.	2965.1
#2	3128.5	3058.7	24468.	2999.2

Sample Name: ccb-4975309 Acquired: 11/2/2018 16:25:06 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00097	-.03247	.00063	-.00053	.00007
Stddev	.00070	.02635	.00107	.00030	.00001
%RSD	72.406	81.156	170.70	56.435	15.384

#1	-.00146	-.01384	-.00013	-.00074	.00006
#2	-.00047	-.05110	.00138	-.00032	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00238	.00011	.0009	.00013
Stddev	.00005	.00523	.00000	.0110	.00001
%RSD	99.919	219.52	1.1337	1257.	5.1014

#1	.00001	.00608	.00010	-.0069	.00012
#2	.00008	-.00132	.00011	.0086	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.00185	.00201	-.01574	-.00156
Stddev	.00012	.00018	.00425	.03615	.00006
%RSD	49.495	9.9519	211.68	229.66	3.9028

#1	.00033	-.00198	.00501	.00982	-.00151
#2	.00016	-.00172	-.00100	-.04131	-.00160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 16:25:06 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00505	.00004	.00080	-.03622	.00042
Stddev	.00003	.00001	.00011	.00415	.00016
%RSD	.61823	24.095	13.552	11.448	37.832

#1	.00502	.00003	.00072	-.03328	.00031
#2	.00507	.00004	.00087	-.03915	.00054

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	-.00295	-.00254	-.00253	-.01488
Stddev	.00085	.00082	.00154	.00094	.02154
%RSD	300.65	27.927	60.706	37.222	144.81

#1	-.00088	-.00353	-.00145	-.00320	-.03011
#2	.00032	-.00237	-.00362	-.00187	.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00027	-.00002	-.00016	.00107	-.00041
Stddev	.00025	.00004	.00007	.00003	.00003
%RSD	90.083	181.48	45.424	2.5033	7.1817

#1	-.00045	.00001	-.00021	.00105	-.00039
#2	-.00010	-.00005	-.00011	.00109	-.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 16:25:06 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00003**
 Stddev .00070
 %RSD 2198.6

#1 **.00053**
 #2 **-.00047**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3127.4	3066.0	24437.	2968.9
Stddev	5.8	11.2	30.	15.6
%RSD	.18448	.36620	.12329	.52668
#1	3123.3	3058.1	24416.	2980.0
#2	3131.5	3074.0	24459.	2957.9

Sample Name: ccvl-4970377 Acquired: 11/2/2018 16:28:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00544	W .13248	.01641	.01857	.00208
Stddev	.00025	.02795	.00163	.00002	.00001
%RSD	4.6881	21.095	9.9387	.11098	.31015

#1	.00562	.11272	.01526	.01858	.00208
#2	.00526	.15225	.01756	.01855	.00209

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value		.20000			
Range		-30.000%			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00195	.55170	.00218	.0033	.00407
Stddev	.00013	.00641	.00003	.0311	.00017
%RSD	6.6948	1.1612	1.4384	933.2	4.2271

#1	.00204	.55623	.00220	.0253	.00395
#2	.00186	.54717	.00216	-.0186	.00419

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00348	.00838	.05005	.48537	.02658
Stddev	.00012	.00052	.00476	.05271	.00011
%RSD	3.4843	6.2231	9.5094	10.859	.39665

#1	.00357	.00801	.05341	.44810	.02651
#2	.00340	.00875	.04668	.52264	.02666

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 16:28:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21196	.00310	.00933	.91397	.01078
Stddev	.00438	.00011	.00012	.00909	.00010
%RSD	2.0677	3.4437	1.3321	.99494	.88896

#1	.21506	.00317	.00925	.92040	.01071
#2	.20886	.00302	.00942	.90754	.01085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01042	.20943	.01719	.01896	.47250
Stddev	.00056	.00056	.00032	.00128	.01702
%RSD	5.3854	.26557	1.8453	6.7495	3.6029

#1	.01002	.20904	.01742	.01805	.48454
#2	.01082	.20982	.01697	.01986	.46046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01022	.00528	.00570	.02277	.00364
Stddev	.00051	.00007	.00001	.00013	.00002
%RSD	4.9705	1.3449	.17373	.55717	.64152

#1	.01058	.00533	.00571	.02286	.00366
#2	.00986	.00523	.00570	.02268	.00362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 16:28:50 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01115**
 Stddev .00031
 %RSD 2.7369

#1 **.01093**
 #2 **.01136**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3160.2	3100.6	24515.	2978.4
Stddev	2.0	2.5	76.	2.0
%RSD	.06276	.08076	.31102	.06566
#1	3161.6	3102.3	24569.	2979.8
#2	3158.8	3098.8	24461.	2977.1

Sample Name: 480-143988-a-6-a Acquired: 11/2/2018 16:32:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	-.02478	.05577	.00448	.02171
Stddev	.00032	.01128	.00061	.00027	.00003
%RSD	97.911	45.532	1.0896	5.9898	.15092

#1	-.00056	-.01680	.05534	.00467	.02169
#2	-.00010	-.03275	.05620	.00429	.02173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	12.839	.15809	-.0065	.00132
Stddev	.00003	.018	.00067	.0311	.00021
%RSD	18.324	.13841	.42505	477.5	15.832

#1	.00019	12.826	.15856	-.0285	.00117
#2	.00014	12.851	.15761	.0155	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	-.00099	.12487	1.9085	-.00225
Stddev	.00018	.00084	.00732	.0189	.00103
%RSD	53.983	85.524	5.8650	.98857	45.546

#1	.00021	-.00158	.13005	1.8952	-.00153
#2	.00047	-.00039	.11969	1.9219	-.00298

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-6-a Acquired: 11/2/2018 16:32:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.76374	.07248	.01211	11.112	.00109
Stddev	.00373	.00032	.00017	.021	.00005
%RSD	.48890	.43627	1.4074	.18515	4.4826

#1	.76638	.07226	.01199	11.097	.00106
#2	.76110	.07270	.01223	11.126	.00112

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00051	3.1375	.00271	-.00149	4.2901
Stddev	.00014	.0110	.00038	.00137	.0198
%RSD	27.718	.35059	13.852	91.672	.46123

#1	.00061	3.1452	.00298	-.00053	4.3041
#2	.00041	3.1297	.00245	-.00246	4.2761

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.04865	.00013	.00265	-.00026
Stddev	.00028	.00037	.00014	.00049	.00094
%RSD	86.778	.75558	107.10	18.406	367.29

#1	.00012	.04839	.00024	.00300	-.00092
#2	.00052	.04891	.00003	.00231	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-6-a Acquired: 11/2/2018 16:32:32 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.18069**
 Stddev .00071
 %RSD .39391

#1 **.18018**
 #2 **.18119**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3193.1	3091.5	24781.	3038.6
Stddev	7.3	.7	44.	5.3
%RSD	.22949	.02246	.17656	.17303

#1	3198.3	3092.0	24812.	3042.4
#2	3188.0	3091.0	24750.	3034.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.29%	96.665%	98.597%	100.74%
Range				

Sample Name: 480-143988-a-7-a Acquired: 11/2/2018 16:36:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	-.02172	.00011	.00018	.01498
Stddev	.00064	.01707	.00182	.00011	.00001
%RSD	79.088	78.554	1711.4	61.005	.03803

#1	-.00125	-.00966	-.00118	.00010	.01498
#2	-.00035	-.03379	.00139	.00025	.01497

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	17.977	.06868	-.0341	.00059
Stddev	.00003	.115	.00003	.0329	.00011
%RSD	79.746	.63714	.04680	96.47	18.248

#1	.00002	18.058	.06870	-.0108	.00066
#2	.00007	17.896	.06866	-.0574	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00091	.09125	.90850	-.00101
Stddev	.00005	.00024	.00222	.01933	.00092
%RSD	23.430	26.779	2.4278	2.1281	90.453

#1	.00019	.00108	.09282	.92217	-.00166
#2	.00027	.00074	.08968	.89483	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-7-a Acquired: 11/2/2018 16:36:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.90288	.03759	.00475	.52174	.00083
Stddev	.00165	.00010	.00002	.01832	.00017
%RSD	.18221	.27894	.43767	3.5122	20.665

#1	.90404	.03752	.00477	.53470	.00071
#2	.90172	.03766	.00474	.50878	.00095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	2.2355	.00132	-.00409	1.6798
Stddev	.00088	.0003	.00055	.00047	.0299
%RSD	769.52	.01103	41.714	11.547	1.7773

#1	-.00074	2.2353	.00171	-.00376	1.7009
#2	.00051	2.2357	.00093	-.00442	1.6587

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.02481	-.00005	.00240	-.00090
Stddev	.00020	.00012	.00060	.00025	.00036
%RSD	64.827	.49627	1115.1	10.292	39.518

#1	.00045	.02490	.00037	.00223	-.00065
#2	.00017	.02472	-.00048	.00257	-.00115

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-7-a Acquired: 11/2/2018 16:36:11 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01762**
 Stddev .00003
 %RSD .15029

#1 **.01764**
 #2 **.01760**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3169.4	3086.6	24703.	3021.4
Stddev	.1	4.1	29.	34.5
%RSD	.00308	.13207	.11893	1.1418

#1	3169.5	3089.5	24723.	2997.0
#2	3169.3	3083.7	24682.	3045.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.52%	96.514%	98.284%	100.17%
Range				

Sample Name: 480-143988-a-8-a Acquired: 11/2/2018 16:39:52 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.03870	.00111	.00197	.01171
Stddev	.00054	.06778	.00133	.00020	.00003
%RSD	229.30	175.13	120.05	10.304	.28357

#1	-.00061	-.08663	.00205	.00212	.01174
#2	.00015	.00923	.00017	.00183	.01169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	20.520	.00345	-.0053	.00024
Stddev	.00009	.108	.00004	.0347	.00004
%RSD	62.081	.52734	1.2840	655.6	18.549

#1	.00008	20.596	.00342	-.0298	.00027
#2	.00020	20.443	.00348	.0192	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00169	-.00045	.02818	1.2721	-.00087
Stddev	.00083	.00007	.00155	.0474	.00096
%RSD	48.855	15.173	5.4851	3.7267	110.48

#1	.00227	-.00050	.02708	1.3056	-.00019
#2	.00111	-.00041	.02927	1.2386	-.00155

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-8-a Acquired: 11/2/2018 16:39:52 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.61535	.00283	.00172	1.0965	.00059
Stddev	.00406	.00013	.00009	.0054	.00012
%RSD	.65928	4.6237	5.1024	.49047	20.682

#1	.61822	.00274	.00166	1.1003	.00050
#2	.61249	.00293	.00178	1.0927	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	1.2848	-.00166	-.00135	1.5285
Stddev	.00173	.0023	.00032	.00024	.0098
%RSD	1113.8	.18101	19.198	18.128	.64064

#1	-.00138	1.2865	-.00143	-.00152	1.5216
#2	.00107	1.2832	-.00188	-.00118	1.5354

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.01649	.00048	.00271	-.00051
Stddev	.00006	.00015	.00020	.00071	.00001
%RSD	11.835	.93219	40.973	26.426	1.4093

#1	.00051	.01660	.00034	.00220	-.00052
#2	.00043	.01638	.00062	.00321	-.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-8-a Acquired: 11/2/2018 16:39:52 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00505**
 Stddev .00041
 %RSD 8.0353

#1 **.00534**
 #2 **.00476**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3175.4	3089.2	24845.	3038.4
Stddev	.1	1.8	88.	7.3
%RSD	.00161	.05941	.35312	.24038

#1	3175.3	3090.5	24783.	3033.2
#2	3175.4	3087.9	24907.	3043.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.71%	96.595%	98.852%	100.73%
Range				

Sample Name: 480-143988-a-9-a Acquired: 11/2/2018 16:43:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	-.01403	.09949	.00609	.01849
Stddev	.00060	.01520	.00022	.00035	.00007
%RSD	171.54	108.36	.22354	5.7409	.39637

#1	.00007	-.00328	.09965	.00584	.01854
#2	-.00077	-.02478	.09933	.00633	.01843

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	10.898	.13309	-.0014	.00137
Stddev	.00006	.030	.00002	.0311	.00005
%RSD	44.121	.27776	.01340	2238.	3.6930

#1	.00010	10.920	.13310	.0206	.00134
#2	.00019	10.877	.13308	-.0234	.00141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00082	.00046	.21817	1.8898	-.00183
Stddev	.00030	.00043	.00488	.0444	.00021
%RSD	36.245	92.742	2.2367	2.3484	11.400

#1	.00061	.00016	.21472	1.9212	-.00168
#2	.00103	.00076	.22162	1.8584	-.00198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-9-a Acquired: 11/2/2018 16:43:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.66943	.11137	.01612	18.552	.00183
Stddev	.00433	.00028	.00037	.039	.00024
%RSD	.64714	.24751	2.2740	.20758	13.013

#1	.66637	.11118	.01638	18.580	.00167
#2	.67250	.11157	.01586	18.525	.00200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	3.0950	.00362	-.00148	4.5414
Stddev	.00197	.0077	.00182	.00491	.0485
%RSD	440.65	.24742	50.218	331.85	1.0689

#1	-.00184	3.1004	.00233	.00199	4.5071
#2	.00094	3.0896	.00490	-.00496	4.5757

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	.04287	.00069	.00372	-.00017
Stddev	.00057	.00006	.00043	.00149	.00020
%RSD	128.39	.13069	62.969	39.966	114.44

#1	.00004	.04291	.00038	.00267	-.00003
#2	.00085	.04283	.00100	.00477	-.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143988-a-9-a Acquired: 11/2/2018 16:43:33 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.15413**
 Stddev .00001
 %RSD .00732

#1 **.15413**
 #2 **.15412**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3185.7	3085.1	24791.	3035.6
Stddev	1.4	.3	13.	2.2
%RSD	.04549	.00985	.05252	.07083

#1	3186.7	3084.9	24800.	3034.1
#2	3184.7	3085.4	24782.	3037.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.05%	96.468%	98.635%	100.64%
Range				

Sample Name: 480-143585-d-2-c Acquired: 11/2/2018 16:47:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	-.04936	-.00001	-.00176	.00006
Stddev	.00077	.01462	.00092	.00002	.00004
%RSD	84.181	29.611	8603.1	.85481	62.880

#1	-.00145	-.05970	.00064	-.00175	.00003
#2	-.00037	-.03903	-.00066	-.00177	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00193	-.00004	-.0424	.00018
Stddev	.00012	.00139	.00015	.0114	.00012
%RSD	67.830	72.134	342.22	26.79	69.601

#1	.00027	.00095	-.00015	-.0343	.00009
#2	.00009	.00292	.00006	-.0504	.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00126	.00016	-.00046	.00032
Stddev	.00009	.00029	.00093	.03596	.00035
%RSD	1573.7	22.607	564.22	7733.1	108.78

#1	-.00006	-.00147	-.00049	.02496	.00057
#2	.00007	-.00106	.00082	-.02589	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-2-c Acquired: 11/2/2018 16:47:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	-.00041	-.00061	-.04263	.00031
Stddev	.00208	.00003	.00014	.00131	.00076
%RSD	253.73	6.1230	23.456	3.0644	245.33

#1	-.00229	-.00043	-.00051	-.04171	.00085
#2	.00065	-.00040	-.00071	-.04356	-.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00097	-.00201	-.00209	-.00392	-.05052
Stddev	.00036	.00226	.00073	.00105	.01062
%RSD	37.370	112.37	34.832	26.723	21.029

#1	.00123	-.00362	-.00157	-.00318	-.04301
#2	.00071	-.00041	-.00260	-.00466	-.05803

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	-.00003	.00047	.00199	-.00078
Stddev	.00004	.00009	.00002	.00114	.00007
%RSD	9.3201	255.71	3.8434	57.149	9.1781

#1	.00041	.00003	.00046	.00119	-.00073
#2	.00036	-.00010	.00048	.00280	-.00083

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-2-c Acquired: 11/2/2018 16:47:13 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00145**
 Stddev .00131
 %RSD 90.056

#1 **.00238**
 #2 **.00053**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3141.7	3099.1	24748.	3043.4
Stddev	.5	.0	61.	8.4
%RSD	.01591	.00079	.24581	.27717

#1	3141.4	3099.1	24791.	3037.5
#2	3142.1	3099.0	24705.	3049.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.62%	96.903%	98.466%	100.90%
Range				

Sample Name: 480-143585-d-3-c Acquired: 11/2/2018 16:50:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	-.01627	.00074	.57990	.14841
Stddev	.00003	.02873	.00028	.00247	.00026
%RSD	4.7292	176.62	37.703	.42582	.17293

#1	-.00068	-.03658	.00054	.57815	.14859
#2	-.00072	.00405	.00093	.58165	.14823

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	39.715	-.00006	.0027	.00053
Stddev	.00002	.234	.00018	.0300	.00003
%RSD	25.361	.58974	289.07	1132.	5.5440

#1	.00009	39.881	.00007	.0239	.00055
#2	.00006	39.550	-.00019	-.0186	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.00610	.00749	26.504	-.00055
Stddev	.00008	.00005	.00221	.195	.00243
%RSD	125.22	.85043	29.447	.73601	441.75

#1	-.00012	.00606	.00593	26.642	-.00227
#2	-.00001	.00613	.00905	26.366	.00117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-3-c Acquired: 11/2/2018 16:50:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.2569	-.00021	-.00054	44.066	.00387
Stddev	.0364	.00004	.00025	.307	.00039
%RSD	.58228	18.387	45.953	.69649	9.9771

#1	6.2826	-.00024	-.00072	44.283	.00415
#2	6.2311	-.00018	-.00037	43.849	.00360

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00110	8.1296	-.00176	-.00464	4.5734
Stddev	.00031	.0060	.00213	.00089	.0292
%RSD	28.307	.07378	121.16	19.209	.63945

#1	.00088	8.1254	-.00327	-.00528	4.5527
#2	.00132	8.1339	-.00025	-.00401	4.5940

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00051	.18259	.00012	.00400	-.00092
Stddev	.00002	.00027	.00023	.00144	.00034
%RSD	4.5862	.14565	194.08	36.086	36.818

#1	.00053	.18277	-.00004	.00298	-.00116
#2	.00049	.18240	.00028	.00502	-.00068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-3-c Acquired: 11/2/2018 16:50:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00392**
 Stddev .00031
 %RSD 8.0120

#1 **.00414**
 #2 **.00370**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3149.1	3054.0	24819.	3011.9
Stddev	5.6	2.6	81.	13.6
%RSD	.17798	.08617	.32512	.45081

#1	3145.2	3052.2	24762.	3002.3
#2	3153.1	3055.9	24876.	3021.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.86%	95.494%	98.748%	99.852%
Range				

Sample Name: 480-143585-d-4-c Acquired: 11/2/2018 16:54:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	-.04604	.00163	.02866	.07154
Stddev	.00042	.01657	.00024	.00025	.00012
%RSD	55.850	36.002	14.699	.87958	.16565

#1	-.00104	-.03432	.00179	.02884	.07162
#2	-.00045	-.05775	.00146	.02848	.07145

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	36.468	-.00001	.0137	.00048
Stddev	.00001	.180	.00009	.0179	.00005
%RSD	41.306	.49374	1400.9	131.1	10.353

#1	-.00003	36.341	.00006	.0263	.00044
#2	-.00001	36.595	-.00007	.0010	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00059	-.00075	.01785	2.0219	-.00168
Stddev	.00022	.00029	.00010	.0077	.00205
%RSD	37.220	38.610	.53247	.38170	122.16

#1	.00043	-.00095	.01778	2.0164	-.00023
#2	.00075	-.00054	.01791	2.0273	-.00313

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-4-c Acquired: 11/2/2018 16:54:33 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.5465	2.0280	.00002	40.138	.00138
Stddev	.0044	.0023	.00024	.059	.00018
%RSD	.06663	.11382	1266.6	.14601	12.971

#1	6.5434	2.0296	.00018	40.096	.00151
#2	6.5496	2.0263	-.00015	40.179	.00126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	12.223	-.00266	-.00613	3.5772
Stddev	.00046	.030	.00064	.00060	.0083
%RSD	1532.5	.24261	24.243	9.7767	.23219

#1	.00035	12.244	-.00311	-.00570	3.5713
#2	-.00029	12.202	-.00220	-.00655	3.5831

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.14878	-.00022	.00340	-.00018
Stddev	.00049	.00002	.00006	.00107	.00014
%RSD	497.61	.01166	26.270	31.481	82.057

#1	.00025	.14877	-.00027	.00264	-.00028
#2	-.00044	.14880	-.00018	.00416	-.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-4-c Acquired: 11/2/2018 16:54:33 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00345**
 Stddev .00026
 %RSD 7.5736

#1 **.00327**
 #2 **.00364**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3169.4	3065.9	24776.	3035.9
Stddev	3.9	2.6	57.	14.2
%RSD	.12404	.08478	.23148	.46752

#1	3166.6	3064.0	24735.	3045.9
#2	3172.2	3067.7	24816.	3025.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.52%	95.864%	98.575%	100.65%
Range				

Sample Name: 480-143585-d-5-c Acquired: 11/2/2018 16:58:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	-.03577	.00212	.02836	.06886
Stddev	.00022	.03270	.00167	.00009	.00004
%RSD	29.535	91.411	78.785	.33044	.06121

#1	-.00090	-.05890	.00094	.02830	.06883
#2	-.00059	-.01265	.00330	.02843	.06889

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	21.446	-.00005	-.0310	.00010
Stddev	.00003	.038	.00015	.0042	.00011
%RSD	244.76	.17895	320.96	13.68	107.96

#1	-.00001	21.473	.00006	-.0280	.00002
#2	.00004	21.419	-.00015	-.0340	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00005	.00962	.85506	.00165
Stddev	.00024	.00025	.00689	.03493	.00025
%RSD	691.14	558.28	71.596	4.0853	15.364

#1	-.00020	.00013	.01449	.83036	.00147
#2	.00013	-.00023	.00475	.87976	.00183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-5-c Acquired: 11/2/2018 16:58:12 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	2.2930	.00626	.00297	15.111	.00061
Stddev	.0080	.00011	.00009	.003	.00025
%RSD	.35020	1.8134	2.9519	.02047	41.314

#1	2.2873	.00634	.00291	15.113	.00043
#2	2.2986	.00618	.00303	15.108	.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00049	4.7384	-.00178	-.00433	5.5703
Stddev	.00125	.0133	.00036	.00018	.0083
%RSD	258.59	.28157	20.428	4.1680	.14916

#1	.00040	4.7290	-.00203	-.00446	5.5762
#2	-.00137	4.7478	-.00152	-.00421	5.5644

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.04685	.00034	.00340	.00095
Stddev	.00023	.00024	.00052	.00005	.00006
%RSD	69.718	.50399	150.78	1.3763	6.6069

#1	-.00049	.04669	.00071	.00337	.00091
#2	-.00017	.04702	-.00002	.00343	.00099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-5-c Acquired: 11/2/2018 16:58:12 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00369**
 Stddev .00018
 %RSD 4.8679

#1 **.00356**
 #2 **.00381**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.2	3076.4	24731.	3024.3
Stddev	5.5	2.6	24.	3.3
%RSD	.17203	.08323	.09636	.11020

#1	3184.1	3078.2	24747.	3021.9
#2	3176.3	3074.6	24714.	3026.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.87%	96.195%	98.395%	100.26%
Range				

Sample Name: 480-143585-d-6-c Acquired: 11/2/2018 17:01:52 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	-.05740	.00286	.10412	.03643
Stddev	.00054	.01966	.00095	.00021	.00008
%RSD	79.059	34.247	33.301	.20478	.23006

#1	-.00030	-.07130	.00353	.10397	.03649
#2	-.00106	-.04350	.00219	.10428	.03637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	16.112	-.00013	.0170	.00012
Stddev	.00008	.049	.00015	.0198	.00021
%RSD	81.506	.30151	117.13	116.4	174.60

#1	.00004	16.078	-.00024	.0030	.00027
#2	.00016	16.147	-.00002	.0310	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	-.00134	.00339	.58538	.00024
Stddev	.00056	.00005	.00199	.00162	.00354
%RSD	175.99	3.5114	58.696	.27632	1469.1

#1	-.00071	-.00137	.00480	.58653	.00274
#2	.00008	-.00131	.00198	.58424	-.00226

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-6-c Acquired: 11/2/2018 17:01:52 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.4077	.02414	.00786	26.422	.00050
Stddev	.0060	.00010	.00010	.039	.00003
%RSD	.42441	.39863	1.2593	.14771	6.9202

#1	1.4119	.02421	.00793	26.394	.00053
#2	1.4034	.02407	.00779	26.450	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00096	5.6355	-.00375	-.00395	4.5825
Stddev	.00054	.0128	.00081	.00101	.0417
%RSD	56.210	.22692	21.592	25.603	.90955

#1	.00058	5.6446	-.00432	-.00467	4.5530
#2	.00134	5.6265	-.00318	-.00324	4.6119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.08939	.00052	.00292	-.00014
Stddev	.00053	.00001	.00079	.00099	.00023
%RSD	174.45	.01508	151.84	33.926	169.13

#1	.00068	.08938	-.00004	.00222	.00003
#2	-.00007	.08940	.00108	.00362	-.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-6-c Acquired: 11/2/2018 17:01:52 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00204**
 Stddev .00032
 %RSD 15.598

#1 **.00182**
 #2 **.00227**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3182.2	3073.6	24834.	3013.4
Stddev	7.1	6.2	44.	11.9
%RSD	.22285	.20255	.17628	.39608

#1	3187.2	3078.0	24803.	3021.9
#2	3177.2	3069.2	24865.	3005.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.93%	96.108%	98.807%	99.904%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 17:05:34 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56484	25.459	.52356	.50299	.51604
Stddev	.00672	.061	.00215	.00065	.00392
%RSD	1.1895	.24123	.41007	.12929	.76046

#1	.56009	25.416	.52508	.50253	.51327
#2	.56959	25.503	.52204	.50345	.51882

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50130	26.367	.52842	-.0500	.50267
Stddev	.00049	.077	.00065	.0043	.00055
%RSD	.09873	.29039	.12341	8.631	.10878

#1	.50095	26.421	.52888	-.0531	.50228
#2	.50165	26.313	.52796	-.0470	.50305

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50501	.53138	26.257	24.610	.49175
Stddev	.00029	.00667	.009	.019	.00190
%RSD	.05825	1.2557	.03262	.07686	.38686

#1	.50480	.52667	26.263	24.623	.49309
#2	.50521	.53610	26.251	24.597	.49040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 17:05:34 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.906	.53206	.50024	24.635	.49919
Stddev	.113	.00394	.00158	.053	.00033
%RSD	.43699	.74081	.31579	.21617	.06647

#1	25.826	.52927	.50136	24.598	.49942
#2	25.986	.53485	.49913	24.673	.49895

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50604	27.061	.51777	.52067	25.863
Stddev	.00084	.026	.00043	.00079	.077
%RSD	.16600	.09620	.08383	.15101	.29903

#1	.50663	27.079	.51746	.52123	25.808
#2	.50544	27.043	.51808	.52012	25.918

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.52794	.52431	.52439	.48402	.50219
Stddev	.00021	.00085	.00144	.00331	.00088
%RSD	.03960	.16269	.27509	.68363	.17512

#1	.52779	.52491	.52337	.48636	.50157
#2	.52808	.52370	.52541	.48168	.50281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 17:05:34 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.51036**
Stddev .00215
%RSD .42200

#1 **.50884**
#2 **.51189**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3124.7	3059.1	24593.	2978.2
Stddev	3.1	3.7	59.	6.8
%RSD	.09821	.11941	.24192	.22726
#1	3126.9	3056.5	24635.	2983.0
#2	3122.5	3061.7	24550.	2973.4

Sample Name: ccb-4975309 Acquired: 11/2/2018 17:09:00 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	-.00453	.00015	-.00058	.00004
Stddev	.00101	.00942	.00058	.00007	.00001
%RSD	161.54	208.00	380.00	11.866	39.655

#1	-.00134	-.01119	.00056	-.00053	.00005
#2	.00009	.00213	-.00026	-.00063	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.00287	.00004	.0272	.00005
Stddev	.00018	.00395	.00026	.0212	.00001
%RSD	380.73	137.49	574.60	77.77	27.435

#1	-.00008	.00566	.00023	.0122	.00004
#2	.00018	.00008	-.00014	.0422	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	-.00127	-.00150	-.04470	-.00064
Stddev	.00003	.00021	.00063	.00713	.00021
%RSD	25.103	16.617	41.880	15.954	32.229

#1	-.00012	-.00141	-.00105	-.03966	-.00050
#2	-.00009	-.00112	-.00194	-.04974	-.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 17:09:00 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00409	.00012	.00074	-.02317	.00037
Stddev	.00143	.00007	.00029	.01265	.00003
%RSD	35.025	58.937	38.436	54.588	8.2710

#1	.00510	.00017	.00054	-.01423	.00040
#2	.00308	.00007	.00094	-.03212	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	-.00329	-.00129	-.00038	-.02075
Stddev	.00012	.00138	.00066	.00050	.02424
%RSD	24.370	41.831	50.785	133.68	116.82

#1	-.00055	-.00427	-.00175	-.00002	-.03790
#2	-.00039	-.00232	-.00083	-.00073	-.00361

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.00005	.00023	.00072	-.00130
Stddev	.00011	.00009	.00058	.00040	.00048
%RSD	271.02	169.44	252.29	55.371	37.261

#1	-.00004	-.00001	.00064	.00044	-.00164
#2	.00012	.00011	-.00018	.00100	-.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 17:09:00 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00020**
 Stddev .00016
 %RSD 78.801

#1 **.00009**
 #2 **.00031**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3125.4	3069.2	24381.	2967.5
Stddev	.2	.9	38.	5.3
%RSD	.00529	.02827	.15495	.18023
#1	3125.5	3069.8	24354.	2971.3
#2	3125.3	3068.6	24407.	2963.7

Sample Name: ccvl-4970377 Acquired: 11/2/2018 17:12:44 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00569	.18988	.01644	.01866	.00210
Stddev	.00040	.00448	.00061	.00023	.00003
%RSD	6.9741	2.3619	3.7048	1.2086	1.4789

#1	.00541	.18671	.01601	.01882	.00212
#2	.00597	.19305	.01687	.01850	.00208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00214	.55096	.00211	.0109	.00408
Stddev	.00012	.00080	.00007	.0619	.00003
%RSD	5.3935	.14501	3.5024	566.6	.63493

#1	.00206	.55040	.00206	.0547	.00409
#2	.00222	.55153	.00216	-.0329	.00406

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00344	.00770	.05139	.49091	.02823
Stddev	.00042	.00058	.00207	.05579	.00015
%RSD	12.291	7.4980	4.0193	11.364	.54820

#1	.00374	.00729	.04993	.45146	.02834
#2	.00315	.00810	.05285	.53036	.02812

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 17:12:44 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20329	.00316	.00924	.91498	.01061
Stddev	.00351	.00010	.00015	.00581	.00031
%RSD	1.7257	3.0626	1.5944	.63502	2.9293

#1	.20081	.00322	.00914	.91909	.01083
#2	.20577	.00309	.00935	.91087	.01039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00959	.20562	.01849	.02198	.49225
Stddev	.00116	.00006	.00104	.00047	.02483
%RSD	12.046	.02675	5.6384	2.1203	5.0438

#1	.00877	.20558	.01776	.02166	.47469
#2	.01041	.20566	.01923	.02231	.50980

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01072	.00527	.00561	.02129	.00394
Stddev	.00029	.00004	.00015	.00020	.00019
%RSD	2.6840	.79798	2.7061	.93386	4.7276

#1	.01052	.00530	.00550	.02143	.00381
#2	.01092	.00524	.00572	.02115	.00407

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 17:12:44 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01092**
 Stddev .00068
 %RSD 6.2160

#1 **.01140**
 #2 **.01044**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.9	3094.3	24632.	2978.6
Stddev	1.2	4.4	99.	3.3
%RSD	.03787	.14072	.40045	.11217
#1	3154.7	3097.3	24702.	2980.9
#2	3153.0	3091.2	24562.	2976.2

Sample Name: 480-143585-d-7-c Acquired: 11/2/2018 17:16:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00100	-.03553	.00330	.06753	.04702
Stddev	.00048	.03309	.00006	.00081	.00007
%RSD	47.703	93.119	1.8825	1.2059	.14980

#1	-.00134	-.01214	.00325	.06696	.04707
#2	-.00066	-.05893	.00334	.06811	.04697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	20.601	-.00005	.0056	.00020
Stddev	.00014	.237	.00006	.0078	.00000
%RSD	472.10	1.1495	112.66	140.8	2.1672

#1	-.00007	20.768	-.00001	.0000	.00020
#2	.00013	20.433	-.00009	.0111	.00021

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	-.00055	.00271	.67736	.00051
Stddev	.00069	.00039	.00113	.03561	.00010
%RSD	160.78	71.370	41.687	5.2571	19.678

#1	.00091	-.00027	.00191	.65218	.00059
#2	-.00006	-.00083	.00350	.70254	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-7-c Acquired: 11/2/2018 17:16:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9212	.02870	.00063	13.619	.00015
Stddev	.0083	.00011	.00030	.048	.00024
%RSD	.42933	.40056	47.459	.35076	154.89

#1	1.9270	.02878	.00042	13.653	-.00001
#2	1.9153	.02862	.00084	13.585	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00077	5.3126	-.00229	-.00338	5.1705
Stddev	.00050	.0119	.00003	.00217	.0160
%RSD	65.193	.22317	1.1862	64.143	.30859

#1	.00042	5.3043	-.00231	-.00185	5.1818
#2	.00113	5.3210	-.00227	-.00491	5.1592

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.12970	.00028	.00285	-.00016
Stddev	.00035	.00054	.00053	.00075	.00005
%RSD	424.58	.41994	187.71	26.222	34.093

#1	-.00033	.13008	-.00009	.00338	-.00012
#2	.00016	.12931	.00066	.00232	-.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-7-c Acquired: 11/2/2018 17:16:26 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00406**
 Stddev .00003
 %RSD .84433

#1 **.00404**
 #2 **.00408**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3189.3	3089.7	24646.	3005.9
Stddev	.9	2.3	53.	13.5
%RSD	.02726	.07471	.21313	.44832

#1	3188.7	3091.3	24609.	2996.3
#2	3189.9	3088.0	24683.	3015.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.16%	96.609%	98.057%	99.653%
Range				

Sample Name: 480-143585-d-8-c Acquired: 11/2/2018 17:20:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	-.07325	.00035	.01170	.04754
Stddev	.00050	.01735	.00154	.00004	.00006
%RSD	92.009	23.690	437.86	.38390	.12515

#1	-.00089	-.08552	-.00074	.01166	.04758
#2	-.00019	-.06098	.00144	.01173	.04750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	23.115	.00013	.0151	.00028
Stddev	.00011	.081	.00007	.0271	.00004
%RSD	726.32	.34860	55.834	179.2	12.778

#1	.00009	23.058	.00008	.0342	.00025
#2	-.00006	23.172	.00018	-.0040	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00081	.00226	.01301	1.1693	.00122
Stddev	.00073	.00013	.00250	.0031	.00040
%RSD	90.877	5.6219	19.228	.26807	32.602

#1	.00029	.00217	.01478	1.1671	.00094
#2	.00133	.00235	.01124	1.1715	.00150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-8-c Acquired: 11/2/2018 17:20:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.3508	.00121	-.00018	8.0796	.00125
Stddev	.0097	.00007	.00018	.0225	.00065
%RSD	.18149	5.7231	94.619	.27877	51.934

#1	5.3577	.00126	-.00031	8.0636	.00079
#2	5.3440	.00116	-.00006	8.0955	.00171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00141	7.7957	-.00392	-.00437	7.2852
Stddev	.00209	.0079	.00128	.00126	.0090
%RSD	148.41	.10076	32.572	28.786	.12407

#1	-.00007	7.7902	-.00302	-.00526	7.2916
#2	.00289	7.8013	-.00482	-.00348	7.2789

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.11002	.00059	.00384	.00011
Stddev	.00092	.00011	.00075	.00285	.00032
%RSD	316.33	.10266	127.09	74.166	302.97

#1	-.00036	.10994	.00006	.00586	.00034
#2	.00095	.11009	.00112	.00183	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-8-c Acquired: 11/2/2018 17:20:06 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00872**
 Stddev .00046
 %RSD 5.3076

#1 **.00905**
 #2 **.00840**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3156.6	3058.1	24644.	2992.3
Stddev	8.7	14.6	18.	8.5
%RSD	.27621	.47696	.07335	.28360

#1	3162.8	3068.4	24631.	2998.3
#2	3150.5	3047.8	24657.	2986.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.10%	95.623%	98.051%	99.201%
Range				

Sample Name: 480-143585-d-9-c Acquired: 11/2/2018 17:23:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00092	-.03214	.00286	.12401	.06928
Stddev	.00028	.03076	.00089	.00051	.00002
%RSD	29.965	95.714	31.179	.41090	.03057

#1	-.00112	-.05389	.00349	.12365	.06927
#2	-.00073	-.01039	.00223	.12437	.06930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	21.252	.00019	.0069	.00016
Stddev	.00020	.065	.00015	.0449	.00006
%RSD	256.89	.30687	81.280	651.0	39.770

#1	.00022	21.298	.00008	-.0248	.00020
#2	-.00006	21.206	.00029	.0386	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00048	.00731	.83879	.00008
Stddev	.00018	.00015	.00141	.00925	.00050
%RSD	67.254	31.616	19.304	1.1026	641.33

#1	.00040	-.00059	.00631	.84533	.00043
#2	.00014	-.00037	.00831	.83225	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-9-c Acquired: 11/2/2018 17:23:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.9987	.07301	.00316	22.296	.00067
Stddev	.0031	.00010	.00001	.069	.00016
%RSD	.15316	.14017	.25916	.31024	23.096

#1	1.9966	.07308	.00315	22.345	.00056
#2	2.0009	.07294	.00316	22.248	.00078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00121	5.2699	-.00379	-.00549	5.6891
Stddev	.00031	.0070	.00082	.00370	.0031
%RSD	26.107	.13243	21.753	67.356	.05397

#1	.00098	5.2650	-.00321	-.00288	5.6913
#2	.00143	5.2748	-.00437	-.00811	5.6869

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.13164	-.00000	.00228	-.00051
Stddev	.00003	.00005	.00003	.00062	.00050
%RSD	15.144	.04161	2150.7	27.136	99.071

#1	.00017	.13160	-.00002	.00271	-.00086
#2	.00021	.13168	.00002	.00184	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-9-c Acquired: 11/2/2018 17:23:45 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00444**
 Stddev .00043
 %RSD 9.7819

#1 **.00475**
 #2 **.00413**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.3	3065.8	24794.	3037.4
Stddev	6.6	8.5	28.	9.5
%RSD	.20867	.27601	.11384	.31435

#1	3175.6	3059.8	24774.	3030.7
#2	3185.0	3071.7	24814.	3044.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.87%	95.862%	98.647%	100.70%
Range				

Sample Name: 480-143585-d-10-c Acquired: 11/2/2018 17:27:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00131	-.04945	.00223	.06686	.04525
Stddev	.00050	.01817	.00104	.00012	.00007
%RSD	38.098	36.734	46.435	.17710	.15810

#1	-.00095	-.03661	.00150	.06694	.04519
#2	-.00166	-.06230	.00297	.06677	.04530

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	19.817	.00002	-.0326	.00030
Stddev	.00011	.037	.00015	.0243	.00020
%RSD	1225.1	.18797	702.42	74.58	65.788

#1	.00007	19.790	.00013	-.0154	.00016
#2	-.00009	19.843	-.00009	-.0498	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.00075	.01276	.63733	.00029
Stddev	.00030	.00077	.00011	.00478	.00053
%RSD	240.23	102.01	.84962	.74929	186.20

#1	.00033	-.00021	.01283	.64071	-.00009
#2	-.00009	-.00130	.01268	.63396	.00066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-10-c Acquired: 11/2/2018 17:27:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.8393	.02796	.00054	13.317	.00066
Stddev	.0037	.00001	.00047	.042	.00022
%RSD	.20182	.02158	87.538	.31254	33.362

#1	1.8367	.02795	.00020	13.346	.00081
#2	1.8419	.02796	.00087	13.287	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	5.0844	-.00177	-.00559	5.0482
Stddev	.00006	.0067	.00061	.00007	.0239
%RSD	9.1349	.13249	34.503	1.3282	.47449

#1	.00065	5.0891	-.00134	-.00554	5.0651
#2	.00074	5.0796	-.00221	-.00564	5.0312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.12428	.00029	.00333	-.00003
Stddev	.00018	.00005	.00027	.00120	.00101
%RSD	80.840	.04401	95.081	36.126	2970.8

#1	-.00010	.12425	.00009	.00418	.00068
#2	-.00036	.12432	.00048	.00248	-.00075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-10-c Acquired: 11/2/2018 17:27:25 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00438**
 Stddev .00019
 %RSD 4.3003

#1 **.00424**
 #2 **.00451**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3186.9	3079.1	24851.	3024.3
Stddev	1.1	1.0	34.	12.6
%RSD	.03438	.03257	.13618	.41803

#1	3186.1	3078.4	24827.	3015.4
#2	3187.7	3079.8	24875.	3033.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.08%	96.279%	98.874%	100.26%
Range				

Sample Name: 480-143585-d-11-c Acquired: 11/2/2018 17:31:05 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	-.04601	.00108	.05934	.66948
Stddev	.00038	.07741	.00195	.00020	.00169
%RSD	51.213	168.25	180.77	.33026	.25278

#1	-.00100	.00873	-.00030	.05948	.67068
#2	-.00047	-.10075	.00245	.05920	.66828

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	291.33	.00014	-.0277	-.00031
Stddev	.00002	1.16	.00003	.0467	.00009
%RSD	24.869	.39728	24.561	168.5	31.022

#1	.00009	292.15	.00016	.0053	-.00024
#2	.00006	290.51	.00012	-.0607	-.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	-.00159	.01102	10.391	.01126
Stddev	.00047	.00064	.00397	.054	.00004
%RSD	77.661	40.037	36.069	.51989	.37950

#1	.00027	-.00114	.00821	10.429	.01129
#2	.00093	-.00204	.01383	10.353	.01123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-11-c Acquired: 11/2/2018 17:31:05 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	44.138	.00482	.00281	F 1241.0	.00075
Stddev	.057	.00001	.00018	3.9	.00005
%RSD	.12980	.15420	6.3532	.31289	6.7159

#1	44.178	.00482	.00268	1243.7	.00079
#2	44.097	.00483	.00294	1238.2	.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit				900.00	
Low Limit				-1.0000	

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00138	14.798	-.00351	-.00493	5.1133
Stddev	.00120	.004	.00211	.00009	.0066
%RSD	86.445	.02598	60.042	1.8849	.12851

#1	.00054	14.796	-.00500	-.00499	5.1179
#2	.00223	14.801	-.00202	-.00486	5.1086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	1.7220	-.00002	.00601	-.00016
Stddev	.00022	.0064	.00007	.00113	.00025
%RSD	64.780	.37031	321.38	18.846	159.08

#1	.00050	1.7265	-.00007	.00520	.00002
#2	.00019	1.7175	.00003	.00681	-.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-11-c Acquired: 11/2/2018 17:31:05 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00765**
 Stddev .00017
 %RSD 2.2606

#1 **.00777**
 #2 **.00753**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2765.5	2879.8	24440.	2886.9
Stddev	1.3	3.6	18.	5.3
%RSD	.04605	.12333	.07521	.18298

#1	2766.4	2882.3	24427.	2883.1
#2	2764.6	2877.3	24453.	2890.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.453%	90.048%	97.240%	95.708%
Range				

Sample Name: 480-143585-d-12-c Acquired: 11/2/2018 17:34:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	-.03874	.00235	.13218	.20399
Stddev	.00047	.00477	.00322	.00095	.00031
%RSD	47.373	12.305	136.67	.71576	.15312

#1	-.00132	-.03537	.00008	.13285	.20377
#2	-.00066	-.04211	.00463	.13151	.20421

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	96.571	.00021	.0232	.00148
Stddev	.00003	.078	.00008	.0007	.00001
%RSD	96.829	.08096	36.005	2.879	.40999

#1	.00001	96.626	.00016	.0227	.00147
#2	.00005	96.516	.00027	.0237	.00148

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00017	1.1563	9.1426	.00313
Stddev	.00014	.00082	.0078	.0472	.00207
%RSD	31.318	483.82	.67472	.51596	66.258

#1	.00055	.00075	1.1618	9.1092	.00459
#2	.00035	-.00041	1.1507	9.1759	.00166

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-12-c Acquired: 11/2/2018 17:34:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.211	1.0222	-.00024	308.46	.00339
Stddev	.027	.0009	.00012	.77	.00017
%RSD	.15013	.08507	48.880	.24834	5.0398

#1	18.192	1.0216	-.00033	309.00	.00327
#2	18.230	1.0228	-.00016	307.91	.00351

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00354	26.051	-.00322	-.00565	9.6050
Stddev	.00043	.003	.00003	.00104	.0371
%RSD	12.106	.01064	.99348	18.433	.38569

#1	.00323	26.053	-.00325	-.00492	9.5788
#2	.00384	26.049	-.00320	-.00639	9.6312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.47932	.00008	.00582	-.00101
Stddev	.00024	.00009	.00023	.00116	.00034
%RSD	57.998	.01828	303.98	19.879	33.068

#1	-.00057	.47938	.00024	.00664	-.00078
#2	-.00024	.47925	-.00009	.00500	-.00125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143585-d-12-c Acquired: 11/2/2018 17:34:50 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00360**
 Stddev .00029
 %RSD 8.0228

#1 **.00381**
 #2 **.00340**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3041.7	3010.4	24799.	2962.9
Stddev	5.5	3.5	11.	18.9
%RSD	.18027	.11786	.04370	.63741

#1	3045.6	3012.9	24791.	2949.5
#2	3037.8	3007.9	24807.	2976.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.387%	94.129%	98.667%	98.228%
Range				

Sample Name: 480-143547-a-1-d Acquired: 11/2/2018 17:38:34 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	-.05784	.00091	.17433	.17471
Stddev	.00006	.00570	.00088	.00007	.00000
%RSD	9.5178	9.8581	96.702	.03862	.00051

#1	-.00064	-.06188	.00029	.17429	.17471
#2	-.00073	-.05381	.00154	.17438	.17471

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	354.01	.00019	.0134	.00039
Stddev	.00004	.35	.00023	.0356	.00001
%RSD	40.764	.09953	121.76	266.2	3.2472

#1	.00007	354.26	.00035	.0385	.00040
#2	.00013	353.76	.00003	-.0118	.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	-.00071	.00673	10.479	.00237
Stddev	.00010	.00038	.00284	.005	.00125
%RSD	82.056	53.112	42.173	.05137	52.707

#1	-.00020	-.00044	.00873	10.483	.00149
#2	-.00005	-.00097	.00472	10.475	.00325

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143547-a-1-d Acquired: 11/2/2018 17:38:34 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.637	.30919	-.00026	16.750	.00129
Stddev	.051	.00013	.00002	.107	.00012
%RSD	.16591	.04295	8.6365	.64020	9.5072

#1	30.673	.30910	-.00024	16.825	.00121
#2	30.601	.30929	-.00027	16.674	.00138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00163	F 102.40	-.00195	-.00389	7.6212
Stddev	.00038	.14	.00123	.00182	.0306
%RSD	23.351	.13960	63.401	46.817	.40125

#1	.00136	102.30	-.00107	-.00260	7.6428
#2	.00189	102.51	-.00282	-.00518	7.5996

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	4.6682	-.00085	.00336	-.00074
Stddev	.00015	.0161	.00076	.00111	.00004
%RSD	181.50	.34425	88.538	32.963	5.4308

#1	.00002	4.6796	-.00139	.00414	-.00076
#2	-.00019	4.6569	-.00032	.00257	-.00071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143547-a-1-d Acquired: 11/2/2018 17:38:34 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00209**
 Stddev .00065
 %RSD 30.833

#1 **.00164**
 #2 **.00255**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3041.7	2976.8	24693.	2956.9
Stddev	3.6	1.8	34.	9.8
%RSD	.11852	.06033	.13875	.33085

#1	3039.2	2978.1	24717.	2963.8
#2	3044.3	2975.5	24668.	2950.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.388%	93.079%	98.244%	98.029%
Range				

Sample Name: 480-143547-a-2-b Acquired: 11/2/2018 17:42:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	-.03857	.00234	.94865	4.4658
Stddev	.00008	.01421	.00181	.00069	.0042
%RSD	43.508	36.842	77.299	.07241	.09487

#1	-.00013	-.02852	.00106	.94914	4.4688
#2	-.00025	-.04862	.00362	.94817	4.4628

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	14.145	-.00032	-.0602	-.00080
Stddev	.00016	.024	.00009	.0185	.00012
%RSD	158.95	.17316	28.233	30.81	14.542

#1	.00022	14.162	-.00026	-.0471	-.00088
#2	-.00001	14.128	-.00039	-.0733	-.00071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	-.00109	.11060	1.1351	.00697
Stddev	.00027	.00122	.00165	.0493	.00004
%RSD	150.02	111.98	1.4906	4.3463	.52924

#1	-.00037	-.00195	.11176	1.1002	.00700
#2	.00001	-.00023	.10943	1.1700	.00695

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143547-a-2-b Acquired: 11/2/2018 17:42:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.5242	.00311	.06657	52.189	.00037
Stddev	.0148	.00002	.00012	.366	.00013
%RSD	.26723	.63838	.17450	.70084	35.561

#1	5.5347	.00312	.06665	51.930	.00028
#2	5.5138	.00309	.06649	52.447	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.07834	-.00305	-.00524	5.7079
Stddev	.00146	.00110	.00003	.00115	.0294
%RSD	340.08	1.4049	1.1080	21.977	.51459

#1	-.00060	.07912	-.00307	-.00443	5.7287
#2	.00146	.07756	-.00303	-.00606	5.6871

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	5.8950	.00019	.00364	-.00120
Stddev	.00001	.0032	.00076	.00045	.00005
%RSD	9.2228	.05437	399.74	12.235	4.3275

#1	-.00011	5.8973	-.00035	.00395	-.00124
#2	-.00013	5.8928	.00072	.00332	-.00117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143547-a-2-b Acquired: 11/2/2018 17:42:13 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00366**
 Stddev .00005
 %RSD 1.4649

#1 **.00362**
 #2 **.00370**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3176.3	3078.1	24873.	3012.0
Stddev	1.4	4.3	60.	5.3
%RSD	.04315	.14128	.24319	.17514

#1	3175.3	3075.0	24830.	3008.3
#2	3177.3	3081.2	24916.	3015.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.74%	96.247%	98.962%	99.856%
Range				

Sample Name: lcsd 480-441501/25-a Acquired: 11/2/2018 17:45:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05110	9.9727	.20411	.19428	.19523
Stddev	.00193	.0040	.00137	.00032	.00104
%RSD	3.7703	.03994	.67270	.16513	.53077

#1	.05247	9.9755	.20314	.19451	.19450
#2	.04974	9.9698	.20508	.19406	.19597

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19873	10.265	.20793	.0054	.19193
Stddev	.00062	.048	.00029	.0086	.00042
%RSD	.31165	.46811	.14166	159.7	.21693

#1	.19917	10.299	.20772	-.0007	.19164
#2	.19829	10.232	.20814	.0115	.19222

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19702	.19604	10.223	9.5425	.18446
Stddev	.00046	.00035	.043	.0144	.00092
%RSD	.23322	.17859	.41870	.15124	.49742

#1	.19734	.19580	10.253	9.5527	.18381
#2	.19669	.19629	10.193	9.5323	.18511

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcsd 480-441501/25-a Acquired: 11/2/2018 17:45:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.8866	.20068	.18940	9.3195	.19806
Stddev	.0032	.00015	.00047	.0093	.00073
%RSD	.03209	.07229	.24731	.09983	.36750

#1	9.8844	.20078	.18907	9.3129	.19858
#2	9.8889	.20058	.18973	9.3261	.19755

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19483	10.474	.19885	.19047	10.232
Stddev	.00174	.000	.00044	.00135	.042
%RSD	.89187	.00228	.21916	.70748	.41417

#1	.19606	10.474	.19915	.19143	10.202
#2	.19360	10.474	.19854	.18952	10.262

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20735	.20234	.20273	.18514	.19431
Stddev	.00024	.00095	.00006	.00216	.00063
%RSD	.11385	.47070	.02992	1.1681	.32574

#1	.20752	.20301	.20269	.18361	.19387
#2	.20718	.20167	.20277	.18667	.19476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcsd 480-441501/25-a Acquired: 11/2/2018 17:45:58 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20876**
 Stddev .00050
 %RSD .23761

#1 **.20911**
 #2 **.20841**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3185.6	3090.0	24878.	3034.2
Stddev	6.4	9.4	60.	10.1
%RSD	.20034	.30449	.24201	.33428

#1	3190.1	3096.6	24835.	3027.0
#2	3181.1	3083.3	24920.	3041.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.04%	96.619%	98.981%	100.59%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 17:49:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56678	25.428	.52575	.50148	.51485
Stddev	.00148	.178	.00113	.00059	.00077
%RSD	.26037	.69993	.21510	.11864	.14969

#1	.56783	25.554	.52655	.50105	.51540
#2	.56574	25.302	.52495	.50190	.51431

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49807	26.587	.53019	-.0359	.50481
Stddev	.00220	.070	.00008	.0072	.00121
%RSD	.44165	.26369	.01500	19.95	.24054

#1	.49963	26.637	.53014	-.0308	.50395
#2	.49652	26.538	.53025	-.0410	.50567

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50585	.53231	26.397	24.510	.49151
Stddev	.00028	.00138	.017	.047	.00012
%RSD	.05499	.25873	.06347	.19020	.02430

#1	.50605	.53328	26.409	24.543	.49160
#2	.50566	.53133	26.385	24.477	.49143

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 17:49:30 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.998	.53149	.49921	24.485	.50043
Stddev	.003	.00097	.00022	.095	.00064
%RSD	.01099	.18264	.04450	.38969	.12854

#1	25.996	.53218	.49937	24.553	.50089
#2	26.000	.53080	.49905	24.418	.49998

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51103	27.186	.51797	.51790	25.948
Stddev	.00235	.008	.00315	.00207	.051
%RSD	.45915	.02898	.60755	.39898	.19537

#1	.50937	27.191	.52020	.51936	25.984
#2	.51268	27.180	.51575	.51644	25.912

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53293	.52347	.52677	.48180	.50075
Stddev	.00143	.00177	.00109	.00025	.00311
%RSD	.26759	.33892	.20628	.05249	.62191

#1	.53192	.52472	.52753	.48162	.50295
#2	.53393	.52221	.52600	.48198	.49855

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 17:49:30 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51077**
 Stddev .00137
 %RSD .26729

#1 **.50980**
 #2 **.51173**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3143.9	3072.4	24750.	2986.1
Stddev	1.3	2.7	14.	17.6
%RSD	.04166	.08775	.05742	.58799
#1	3143.0	3070.5	24760.	2973.6
#2	3144.8	3074.3	24740.	2998.5

Sample Name: ccb-4975309 Acquired: 11/2/2018 17:52:56 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00164	-.05905	.00036	-.00022	.00005
Stddev	.00048	.04124	.00165	.00037	.00003
%RSD	29.403	69.846	453.05	169.47	54.360

#1	-.00198	-.02988	.00153	.00004	.00003
#2	-.00130	-.08821	-.00080	-.00048	.00007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00058	.00006	-.0116	.00003
Stddev	.00005	.00375	.00001	.0434	.00008
%RSD	29.152	645.22	12.017	372.8	259.52

#1	.00012	.00207	.00006	-.0423	-.00002
#2	.00019	-.00323	.00005	.0191	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00147	.00106	-.01774	-.00188
Stddev	.00014	.00005	.00105	.01131	.00005
%RSD	97.684	3.4554	99.637	63.766	2.8574

#1	.00025	-.00151	.00180	-.00974	-.00184
#2	.00005	-.00143	.00031	-.02574	-.00192

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 17:52:56 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00155	.00010	.00072	-.00776	.00031
Stddev	.00373	.00003	.00036	.00938	.00003
%RSD	240.19	26.425	49.851	120.94	8.7245

#1	.00419	.00012	.00047	-.00112	.00033
#2	-.00108	.00008	.00098	-.01439	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.00205	-.00085	-.00240	-.03157
Stddev	.00062	.00139	.00250	.00067	.00071
%RSD	264.26	67.714	294.69	27.922	2.2403

#1	.00068	-.00107	.00092	-.00193	-.03107
#2	-.00020	-.00304	-.00262	-.00287	-.03207

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00058	-.00003	.00050	.00088	-.00076
Stddev	.00065	.00010	.00013	.00063	.00006
%RSD	112.73	310.23	25.220	72.177	7.8432

#1	.00103	-.00011	.00041	.00132	-.00080
#2	.00012	.00004	.00059	.00043	-.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 17:52:56 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00003**
 Stddev .00015
 %RSD 597.75

#1 -.00008
 #2 .00013

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3142.2	3073.1	24730.	2947.6
Stddev	3.7	1.1	109.	10.4
%RSD	.11785	.03676	.44251	.35144
#1	3139.6	3072.3	24808.	2940.3
#2	3144.8	3073.9	24653.	2955.0

Sample Name: ccvl-4970377 Acquired: 11/2/2018 17:56:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00532	.17013	.01584	.01853	.00209
Stddev	.00023	.00717	.00003	.00012	.00000
%RSD	4.4109	4.2117	.18329	.66584	.06237

#1	.00515	.16506	.01586	.01845	.00209
#2	.00548	.17519	.01582	.01862	.00210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00216	.54858	.00216	.0241	.00422
Stddev	.00011	.01028	.00007	.0283	.00007
%RSD	5.0147	1.8748	3.1566	117.2	1.6015

#1	.00208	.55585	.00212	.0041	.00427
#2	.00223	.54131	.00221	.0441	.00418

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00387	.00819	.05078	.48151	.02846
Stddev	.00022	.00111	.00333	.00381	.00115
%RSD	5.7248	13.511	6.5542	.79120	4.0388

#1	.00372	.00897	.04842	.48420	.02765
#2	.00403	.00741	.05313	.47881	.02927

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 17:56:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20867	.00306	.00928	.94102	.01079
Stddev	.00262	.00005	.00014	.02153	.00028
%RSD	1.2580	1.7993	1.5485	2.2882	2.6156

#1	.21052	.00309	.00918	.92579	.01098
#2	.20681	.00302	.00938	.95625	.01059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00993	.20916	.01703	.02143	.48944
Stddev	.00049	.00059	.00057	.00062	.02002
%RSD	4.9792	.28041	3.3699	2.8916	4.0910

#1	.01028	.20958	.01662	.02187	.50360
#2	.00958	.20875	.01744	.02100	.47528

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01032	.00520	.00532	.02123	.00389
Stddev	.00029	.00026	.00049	.00056	.00084
%RSD	2.7741	5.0504	9.2371	2.6540	21.660

#1	.01052	.00501	.00567	.02083	.00449
#2	.01012	.00539	.00497	.02162	.00330

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 17:56:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.01072**
Stddev .00007
%RSD .67124

#1 **.01077**
#2 **.01067**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3181.9	3121.0	24857.	2984.7
Stddev	7.6	3.0	15.	4.7
%RSD	.23866	.09615	.06132	.15609
#1	3176.6	3118.9	24868.	2988.0
#2	3187.3	3123.1	24847.	2981.5

Sample Name: mb 480-442865/1-a Acquired: 11/2/2018 18:00:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.03524	.00115	.00079	.00006
Stddev	.00011	.00996	.00037	.00008	.00002
%RSD	51.162	28.279	32.355	10.336	41.457

#1	.00028	-.02819	.00089	.00084	.00004
#2	.00013	-.04228	.00141	.00073	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.04798	-.00003	.0153	.00012
Stddev	.00004	.00239	.00002	.0387	.00007
%RSD	591.68	4.9784	77.624	251.9	55.353

#1	-.00002	.04629	-.00004	-.0120	.00017
#2	.00004	.04967	-.00001	.0427	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	-.00221	.00271	-.02391	-.00189
Stddev	.00041	.00059	.00170	.01487	.00016
%RSD	91.649	26.583	62.911	62.198	8.4506

#1	.00016	-.00180	.00391	-.01339	-.00200
#2	.00074	-.00263	.00150	-.03442	-.00178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-442865/1-a Acquired: 11/2/2018 18:00:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00026	-.00072	-.02528	.00057
Stddev	.00644	.00002	.00005	.00125	.00033
%RSD	808.45	8.5871	6.3889	4.9448	56.954

#1	.00535	.00027	-.00069	-.02440	.00034
#2	-.00375	.00024	-.00075	-.02617	.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00038	-.00133	-.00216	-.00373	-.03194
Stddev	.00160	.00182	.00004	.00219	.00209
%RSD	426.18	137.08	1.7717	58.777	6.5273

#1	.00151	-.00004	-.00214	-.00218	-.03047
#2	-.00076	-.00261	-.00219	-.00528	-.03342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00026	.00044	.00351	-.00072
Stddev	.00029	.00006	.00016	.00075	.00005
%RSD	82.393	22.680	36.411	21.256	7.1777

#1	-.00015	.00030	.00033	.00403	-.00075
#2	-.00056	.00022	.00055	.00298	-.00068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-442865/1-a Acquired: 11/2/2018 18:00:21 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00130**
 Stddev .00010
 %RSD 7.4762

#1 **.00124**
 #2 **.00137**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3172.4	3128.9	24965.	3014.9
Stddev	1.4	4.0	47.	18.2
%RSD	.04450	.12923	.18792	.60329

#1	3173.4	3131.7	24998.	3002.0
#2	3171.4	3126.0	24931.	3027.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.61%	97.835%	99.326%	99.953%
Range				

Sample Name: lcs 480-442865/2-a Acquired: 11/2/2018 18:04:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05139	10.145	.21096	.19930	.19582
Stddev	.00018	.054	.00096	.00029	.00007
%RSD	.35576	.52884	.45432	.14690	.03445

#1	.05152	10.183	.21163	.19909	.19587
#2	.05126	10.107	.21028	.19950	.19577

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20403	10.532	.21249	-.0637	.19683
Stddev	.00011	.022	.00040	.0034	.00033
%RSD	.05310	.21008	.18636	5.364	.16786

#1	.20395	10.516	.21221	-.0661	.19706
#2	.20410	10.547	.21277	-.0612	.19660

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20211	.19834	10.501	9.5861	.18990
Stddev	.00045	.00088	.019	.0155	.00071
%RSD	.22371	.44159	.17993	.16137	.37441

#1	.20179	.19772	10.488	9.5752	.18939
#2	.20243	.19896	10.515	9.5970	.19040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-442865/2-a Acquired: 11/2/2018 18:04:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.076	.20438	.19544	9.4816	.20295
Stddev	.055	.00026	.00027	.0228	.00028
%RSD	.55017	.12637	.13986	.24004	.14041

#1	10.115	.20457	.19564	9.4977	.20274
#2	10.037	.20420	.19525	9.4655	.20315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19969	10.376	.20203	.19817	10.284
Stddev	.00083	.005	.00228	.00140	.088
%RSD	.41468	.04649	1.1305	.70757	.85444

#1	.20027	10.379	.20365	.19917	10.222
#2	.19910	10.373	.20042	.19718	10.346

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20615	.20489	.20772	.19158	.19888
Stddev	.00059	.00015	.00000	.00017	.00119
%RSD	.28485	.07137	.00012	.08947	.59753

#1	.20656	.20499	.20772	.19146	.19972
#2	.20573	.20478	.20772	.19170	.19804

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-442865/2-a Acquired: 11/2/2018 18:04:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.21223**
Stddev .00147
%RSD .69371

#1 **.21118**
#2 **.21327**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3192.7	3100.7	24811.	3024.0
Stddev	.2	.9	96.	16.2
%RSD	.00761	.02762	.38524	.53669

#1	3192.5	3101.3	24744.	3035.4
#2	3192.8	3100.1	24879.	3012.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.27%	96.955%	98.716%	100.25%
Range				

Sample Name: 480-144352-d-1-a Acquired: 11/2/2018 18:07:34 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00058	.00072	.01858	.39544	.62717
Stddev	.00004	.03975	.00109	.00007	.00035
%RSD	7.0810	5506.2	5.8805	.01668	.05660

#1	-.00055	-.02739	.01781	.39539	.62742
#2	-.00061	.02883	.01936	.39549	.62692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	256.02	.00042	.0034	.00191
Stddev	.00008	.83	.00013	.0893	.00023
%RSD	62.830	.32507	30.925	2630.	12.081

#1	.00017	255.43	.00033	-.0597	.00175
#2	.00007	256.60	.00051	.0665	.00207

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00380	-.00069	12.416	13.990	.02572
Stddev	.00029	.00061	.002	.023	.00063
%RSD	7.5484	88.634	.01866	.16181	2.4493

#1	.00400	-.00113	12.418	13.974	.02527
#2	.00359	-.00026	12.415	14.006	.02616

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-a Acquired: 11/2/2018 18:07:34 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	110.84	2.8560	.00596	203.44	.09367
Stddev	.03	.0010	.00029	.60	.00005
%RSD	.02411	.03605	4.8231	.29471	.05323

#1	110.82	2.8553	.00576	203.02	.09363
#2	110.85	2.8568	.00616	203.87	.09370

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00325	42.049	-.00251	-.00554	16.097
Stddev	.00209	.009	.00024	.00027	.010
%RSD	64.303	.02213	9.7292	4.9135	.05971

#1	.00473	42.055	-.00234	-.00535	16.104
#2	.00177	42.042	-.00268	-.00573	16.090

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.85348	-.00035	.00608	-.00036
Stddev	.00033	.00057	.00015	.00089	.00057
%RSD	34.303	.06731	41.614	14.573	158.22

#1	.00118	.85388	-.00025	.00545	-.00076
#2	.00072	.85307	-.00045	.00670	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-a Acquired: 11/2/2018 18:07:34 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00451**
 Stddev .00060
 %RSD 13.380

#1 **.00493**
 #2 **.00408**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2975.7	2963.1	25043.	2977.6
Stddev	3.2	1.3	36.	20.9
%RSD	.10899	.04441	.14229	.70175

#1	2978.0	2962.1	25069.	2992.4
#2	2973.4	2964.0	25018.	2962.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	96.252%	92.651%	99.639%	98.717%
Range				

Sample Name: 480-144352-d-1-aSD@5 Acquired: 11/2/2018 18:11:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	-.01250	.00400	.07593	.12015
Stddev	.00104	.00211	.00067	.00015	.00047
%RSD	127.35	16.917	16.615	.20098	.39158

#1	-.00008	-.01400	.00353	.07604	.11981
#2	-.00156	-.01101	.00447	.07583	.12048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	51.074	.00014	.0007	.00045
Stddev	.00008	.020	.00014	.0416	.00005
%RSD	123.07	.03958	103.31	5634.	11.869

#1	.00012	51.088	.00004	.0302	.00041
#2	.00001	51.060	.00024	-.0287	.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00053	-.00200	2.5108	2.5916	.00350
Stddev	.00058	.00039	.0010	.0888	.00164
%RSD	109.36	19.375	.03916	3.4279	46.848

#1	.00094	-.00228	2.5101	2.5288	.00466
#2	.00012	-.00173	2.5115	2.6544	.00234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-aSD@5 Acquired: 11/2/2018 18:11:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	21.505	.58326	.00048	39.786	.01925
Stddev	.010	.00095	.00002	.015	.00011
%RSD	.04577	.16364	3.6485	.03875	.57493

#1	21.498	.58259	.00046	39.797	.01933
#2	21.512	.58394	.00049	39.775	.01917

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00086	8.0956	-.00157	-.00275	3.1616
Stddev	.00147	.0011	.00071	.00103	.0391
%RSD	171.89	.01324	45.265	37.627	1.2362

#1	.00190	8.0963	-.00107	-.00348	3.1339
#2	-.00018	8.0948	-.00207	-.00202	3.1892

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.17104	.00004	.00386	-.00088
Stddev	.00032	.00027	.00010	.00017	.00038
%RSD	48.574	.15783	225.74	4.5181	43.189

#1	.00044	.17123	-.00003	.00374	-.00115
#2	.00090	.17085	.00011	.00399	-.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-aSD@5 Acquired: 11/2/2018 18:11:11 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00150**
 Stddev .00042
 %RSD 28.269

#1 **.00120**
 #2 **.00180**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3147.1	3070.6	24977.	2988.2
Stddev	1.4	5.6	18.	.9
%RSD	.04522	.18156	.07066	.02868

#1	3146.1	3066.6	24965.	2988.8
#2	3148.1	3074.5	24990.	2987.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.80%	96.012%	99.377%	99.066%
Range				

Sample Name: 480-144352-d-1-aPDS Acquired: 11/2/2018 18:14:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05463	10.497	.23976	.59560	.77170
Stddev	.00085	.078	.00005	.00076	.00013
%RSD	1.5614	.74667	.02182	.12726	.01735

#1	.05402	10.553	.23980	.59614	.77179
#2	.05523	10.442	.23973	.59507	.77160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20836	256.81	.22306	.0235	.20353
Stddev	.00053	.62	.00059	.0050	.00057
%RSD	.25411	.24025	.26366	21.28	.28105

#1	.20799	257.25	.22348	.0200	.20394
#2	.20874	256.38	.22265	.0271	.20313

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20109	.22010	22.287	24.028	.23786
Stddev	.00134	.00063	.022	.043	.00014
%RSD	.66831	.28800	.09992	.17996	.05843

#1	.20014	.21965	22.271	23.997	.23776
#2	.20204	.22055	22.303	24.059	.23796

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-aPDS Acquired: 11/2/2018 18:14:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	119.58	2.9963	.20481	205.90	.29564
Stddev	.08	.0005	.00070	.05	.00173
%RSD	.06750	.01691	.34378	.02306	.58646

#1	119.64	2.9966	.20531	205.87	.29687
#2	119.52	2.9959	.20431	205.94	.29442

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20995	51.881	.21011	.20819	26.253
Stddev	.00103	.083	.00005	.00186	.116
%RSD	.49035	.16047	.02220	.89470	.44241

#1	.20922	51.940	.21007	.20687	26.336
#2	.21068	51.822	.21014	.20951	26.171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21722	1.0283	.20724	.19927	.19985
Stddev	.00030	.0009	.00128	.00168	.00025
%RSD	.13899	.09070	.61597	.84185	.12425

#1	.21744	1.0290	.20814	.20046	.19968
#2	.21701	1.0276	.20633	.19809	.20003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-aPDS Acquired: 11/2/2018 18:14:50 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.20166**
 Stddev .00083
 %RSD .41361

#1 **.20225**
 #2 **.20107**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2950.3	2957.3	24683.	2996.8
Stddev	.6	3.0	17.	15.8
%RSD	.02118	.10303	.06876	.52874

#1	2950.7	2955.1	24671.	2985.6
#2	2949.8	2959.4	24695.	3008.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.429%	92.469%	98.204%	99.352%
Range				

Sample Name: 480-144352-d-1-b ms Acquired: 11/2/2018 18:18:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05125	9.9373	.22697	.57482	.74572
Stddev	.00257	.0219	.00243	.00016	.00197
%RSD	5.0170	.22078	1.0727	.02834	.26448

#1	.04943	9.9218	.22525	.57493	.74712
#2	.05306	9.9528	.22869	.57470	.74433

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19813	250.43	.21027	-.0009	.19183
Stddev	.00062	.16	.00026	.0414	.00025
%RSD	.31529	.06230	.12170	4807.	.12819

#1	.19857	250.54	.21009	-.0301	.19166
#2	.19769	250.32	.21046	.0284	.19201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19088	.20585	21.491	23.041	.22187
Stddev	.00128	.00189	.046	.002	.00128
%RSD	.67123	.92029	.21189	.00908	.57788

#1	.18998	.20451	21.523	23.040	.22096
#2	.19179	.20719	21.459	23.043	.22277

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-b ms Acquired: 11/2/2018 18:18:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	115.48	2.8883	.19431	200.38	.28192
Stddev	.73	.0174	.00111	.33	.00062
%RSD	.63587	.60072	.57001	.16508	.22041

#1	114.97	2.8760	.19509	200.62	.28236
#2	116.00	2.9006	.19352	200.15	.28148

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19832	50.186	.19782	.19657	25.200
Stddev	.00059	.029	.00088	.00433	.033
%RSD	.29676	.05761	.44275	2.2036	.12945

#1	.19790	50.166	.19720	.19963	25.177
#2	.19873	50.207	.19844	.19350	25.223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20413	.99372	.19559	.19026	.18829
Stddev	.00029	.00045	.00211	.00122	.00132
%RSD	.14107	.04547	1.0813	.63870	.70075

#1	.20433	.99404	.19409	.18940	.18736
#2	.20392	.99340	.19708	.19112	.18923

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-b ms Acquired: 11/2/2018 18:18:20 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19332**
 Stddev .00259
 %RSD 1.3374

#1 **.19149**
 #2 **.19515**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2960.9	2967.3	24759.	2971.0
Stddev	.3	3.3	174.	2.7
%RSD	.01063	.11054	.70418	.08995

#1	2961.2	2969.6	24882.	2969.1
#2	2960.7	2965.0	24636.	2972.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.775%	92.783%	98.509%	98.495%
Range				

Sample Name: 480-144352-d-1-c msd Acquired: 11/2/2018 18:21:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05340	10.242	.23632	.58758	.75426
Stddev	.00045	.076	.00061	.00031	.00161
%RSD	.84283	.74346	.25783	.05255	.21325

#1	.05372	10.296	.23589	.58780	.75539
#2	.05309	10.189	.23675	.58736	.75312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20535	254.54	.22047	.0124	.20044
Stddev	.00101	.59	.00026	.0083	.00010
%RSD	.48943	.23076	.11866	67.41	.04894

#1	.20606	254.96	.22065	.0065	.20037
#2	.20464	254.13	.22028	.0183	.20051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19854	.21584	22.094	23.373	.23074
Stddev	.00113	.00059	.038	.079	.00137
%RSD	.56810	.27403	.17322	.33882	.59518

#1	.19934	.21542	22.121	23.429	.22976
#2	.19774	.21626	22.067	23.317	.23171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-c msd Acquired: 11/2/2018 18:21:50 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 { 41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	117.29	2.9348	.20276	201.99	.29205
Stddev	.16	.0030	.00092	.79	.00088
%RSD	.13601	.10339	.45612	.39146	.30177

#1	117.40	2.9369	.20341	202.55	.29267
#2	117.17	2.9326	.20210	201.44	.29143

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20757	51.068	.20774	.20887	25.606
Stddev	.00075	.033	.00115	.00207	.054
%RSD	.36024	.06530	.55229	.99008	.21077

#1	.20810	51.091	.20856	.20741	25.645
#2	.20704	51.044	.20693	.21033	25.568

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21152	1.0080	.20466	.19798	.19576
Stddev	.00029	.0040	.00012	.00209	.00016
%RSD	.13750	.39833	.05680	1.0557	.08072

#1	.21131	1.0109	.20475	.19650	.19564
#2	.21173	1.0052	.20458	.19946	.19587

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-1-c msd Acquired: 11/2/2018 18:21:50 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.19903**
 Stddev .00142
 %RSD .71420

#1 **.19802**
 #2 **.20003**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2948.8	2948.9	24595.	2959.3
Stddev	.5	3.0	21.	4.2
%RSD	.01659	.10178	.08736	.14038

#1	2948.4	2946.8	24610.	2956.4
#2	2949.1	2951.0	24580.	2962.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.382%	92.208%	97.855%	98.109%
Range				

Sample Name: 480-144352-d-2-a Acquired: 11/2/2018 18:25:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00138	-.05289	.04431	.05101	.83561
Stddev	.00032	.00021	.00001	.00000	.00085
%RSD	23.271	.40586	.02781	.00595	.10208

#1	-.00115	-.05274	.04432	.05101	.83500
#2	-.00161	-.05304	.04430	.05101	.83621

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	109.88	.00032	.0232	.00529
Stddev	.00007	.03	.00009	.0182	.00008
%RSD	52.181	.03115	28.825	78.40	1.5971

#1	.00009	109.91	.00025	.0103	.00523
#2	.00019	109.86	.00038	.0360	.00535

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	-.00107	24.770	2.6086	.01041
Stddev	.00022	.00044	.004	.0036	.00151
%RSD	44.222	40.585	.01520	.13751	14.485

#1	.00065	-.00138	24.773	2.6061	.01148
#2	.00034	-.00077	24.767	2.6111	.00935

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-2-a Acquired: 11/2/2018 18:25:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	45.014	2.1997	.00569	10.771	.00628
Stddev	.034	.0016	.00024	.023	.00018
%RSD	.07570	.07125	4.2912	.21159	2.8179

#1	44.990	2.2008	.00552	10.787	.00641
#2	45.038	2.1986	.00587	10.755	.00616

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00441	.31587	-.00243	-.00365	23.541
Stddev	.00035	.00011	.00049	.00149	.023
%RSD	7.8513	.03355	20.271	40.651	.09840

#1	.00416	.31580	-.00278	-.00260	23.557
#2	.00465	.31595	-.00208	-.00470	23.525

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.36575	-.00016	.00191	-.00085
Stddev	.00072	.00001	.00016	.00034	.00061
%RSD	312.93	.00255	99.824	17.727	71.633

#1	-.00028	.36575	-.00028	.00167	-.00128
#2	.00074	.36574	-.00005	.00215	-.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-2-a Acquired: 11/2/2018 18:25:20 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00552**
 Stddev .00005
 %RSD .98933

#1 **.00548**
 #2 **.00556**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3106.7	3035.2	24968.	2998.0
Stddev	4.5	.8	14.	14.9
%RSD	.14561	.02564	.05542	.49852

#1	3109.9	3034.7	24958.	3008.5
#2	3103.5	3035.8	24978.	2987.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.49%	94.906%	99.339%	99.391%
Range				

Sample Name: 480-144352-d-3-a Acquired: 11/2/2018 18:28:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.01070	-.00041	.09253	.39707
Stddev	.00001	.01699	.00268	.00033	.00126
%RSD	55.301	158.75	651.95	.35997	.31794

#1	.00002	.00131	-.00230	.09277	.39617
#2	.00001	-.02271	.00148	.09230	.39796

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	173.69	.00039	.0158	.00006
Stddev	.00008	1.44	.00029	.0298	.00002
%RSD	50.488	.82656	75.334	188.7	24.007

#1	.00011	174.70	.00059	.0369	.00007
#2	.00022	172.67	.00018	-.0053	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00144	.00604	1.6171	.01391
Stddev	.00010	.00107	.00261	.0438	.00128
%RSD	116.35	74.288	43.223	2.7070	9.1673

#1	-.00001	-.00220	.00789	1.6480	.01482
#2	-.00015	-.00068	.00420	1.5861	.01301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-3-a Acquired: 11/2/2018 18:28:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	72.668	.00123	.00003	12.085	.00246
Stddev	.082	.00009	.00020	.090	.00032
%RSD	.11287	7.5340	581.24	.74448	13.013

#1	72.610	.00130	.00017	12.149	.00223
#2	72.726	.00117	-.00011	12.022	.00269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00142	5.1372	-.00268	-.00473	14.892
Stddev	.00030	.0179	.00054	.00033	.095
%RSD	21.067	.34796	20.337	6.9538	.63660

#1	.00121	5.1245	-.00307	-.00449	14.959
#2	.00164	5.1498	-.00229	-.00496	14.825

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.62558	.00046	.00399	-.00185
Stddev	.00022	.00518	.00003	.00070	.00021
%RSD	651.02	.82725	7.4055	17.629	11.165

#1	-.00019	.62924	.00049	.00449	-.00171
#2	.00012	.62192	.00044	.00349	-.00200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-3-a Acquired: 11/2/2018 18:28:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00336**
Stddev .00006
%RSD 1.7975

#1 **.00332**
#2 **.00340**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3068.3	2998.9	24803.	2984.7
Stddev	1.0	3.0	34.	29.9
%RSD	.03261	.09936	.13675	1.0035

#1	3069.0	3001.0	24779.	2963.5
#2	3067.6	2996.8	24827.	3005.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.247%	93.771%	98.681%	98.951%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 18:32:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56495	25.482	.52703	.50301	.51284
Stddev	.00065	.016	.00047	.00144	.00040
%RSD	.11544	.06253	.08905	.28529	.07704

#1	.56449	25.471	.52670	.50200	.51256
#2	.56541	25.494	.52737	.50402	.51312

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50202	26.591	.52957	.0262	.50576
Stddev	.00206	.036	.00179	.0443	.00012
%RSD	.41095	.13451	.33781	169.1	.02437

#1	.50348	26.565	.53083	-.0051	.50584
#2	.50056	26.616	.52830	.0575	.50567

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50646	.52926	26.470	24.657	.49380
Stddev	.00002	.00026	.005	.040	.00110
%RSD	.00301	.04993	.02041	.16029	.22355

#1	.50647	.52908	26.466	24.685	.49458
#2	.50645	.52945	26.474	24.629	.49302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 18:32:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.964	.53045	.49935	24.755	.50099
Stddev	.013	.00038	.00047	.034	.00156
%RSD	.05114	.07109	.09457	.13921	.31119

#1	25.973	.53019	.49902	24.779	.49989
#2	25.954	.53072	.49969	24.730	.50209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51064	27.209	.52114	.51762	26.291
Stddev	.00235	.051	.00240	.00377	.048
%RSD	.46060	.18631	.45971	.72753	.18102

#1	.51230	27.245	.52283	.51495	26.257
#2	.50897	27.173	.51944	.52028	26.324

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53382	.52596	.52671	.48593	.50261
Stddev	.00113	.00096	.00024	.00026	.00016
%RSD	.21078	.18278	.04628	.05390	.03279

#1	.53303	.52664	.52654	.48575	.50273
#2	.53462	.52528	.52688	.48612	.50249

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 18:32:39 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51258**
 Stddev .00072
 %RSD .13967

#1 **.51207**
 #2 **.51308**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3159.8	3091.2	24831.	2973.4
Stddev	6.3	.5	77.	1.1
%RSD	.19843	.01669	.31041	.03797
#1	3164.2	3090.8	24885.	2972.6
#2	3155.3	3091.5	24776.	2974.2

Sample Name: ccb-4975309 Acquired: 11/2/2018 18:36:07 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00138	-.02282	.00092	.00001	.00005
Stddev	.00083	.02082	.00083	.00022	.00001
%RSD	60.553	91.241	91.007	1788.0	20.457

#1	-.00197	-.00810	.00033	-.00014	.00004
#2	-.00079	-.03754	.00151	.00016	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.00254	.00021	-.0034	-.00002
Stddev	.00013	.00201	.00022	.0150	.00001
%RSD	418.00	79.240	107.84	438.0	49.873

#1	-.00006	.00396	.00036	-.0140	-.00001
#2	.00012	.00112	.00005	.0072	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.00157	.00242	.02143	-.00143
Stddev	.00011	.00004	.00204	.01649	.00068
%RSD	748.36	2.8355	84.140	76.951	47.750

#1	-.00006	-.00160	.00387	.00977	-.00191
#2	.00009	-.00154	.00098	.03309	-.00095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 18:36:07 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00094	.00005	.00062	-.01784	.00008
Stddev	.00378	.00005	.00036	.00972	.00054
%RSD	402.11	102.37	57.399	54.445	704.79

#1	.00173	.00001	.00037	-.01097	-.00030
#2	-.00362	.00009	.00088	-.02471	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	-.00142	-.00073	-.00256	-.02815
Stddev	.00028	.00039	.00116	.00063	.01451
%RSD	145.97	27.579	158.36	24.453	51.545

#1	-.00001	-.00170	.00009	-.00212	-.03842
#2	.00039	-.00114	-.00155	-.00300	-.01789

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	-.00015	.00056	.00156	-.00034
Stddev	.00046	.00010	.00055	.00071	.00028
%RSD	28618.	68.275	97.875	45.462	81.751

#1	-.00033	-.00022	.00017	.00206	-.00014
#2	.00032	-.00008	.00094	.00106	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 18:36:07 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00011**
 Stddev .00039
 %RSD 372.61

#1 **-.00038**
 #2 **.00017**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3148.4	3087.3	24538.	2950.2
Stddev	3.5	.4	13.	17.8
%RSD	.11048	.01282	.05439	.60182
#1	3146.0	3087.0	24548.	2937.6
#2	3150.9	3087.6	24529.	2962.8

Sample Name: ccvl-4970377 Acquired: 11/2/2018 18:39:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00575	W .13438	.01713	.01859	.00209
Stddev	.00057	.03447	.00062	.00020	.00003
%RSD	9.9750	25.654	3.5962	1.0852	1.5396

#1	.00535	.15876	.01756	.01845	.00211
#2	.00616	.11001	.01669	.01874	.00207

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value		.20000			
Range		-30.000%			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00203	.54825	.00219	.0212	.00460
Stddev	.00001	.00036	.00015	.0124	.00001
%RSD	.60620	.06524	6.6492	58.48	.19887

#1	.00202	.54799	.00229	.0124	.00461
#2	.00204	.54850	.00209	.0300	.00459

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00350	.00831	.05239	.45838	.02722
Stddev	.00036	.00052	.00014	.01618	.00077
%RSD	10.348	6.2649	.27206	3.5302	2.8429

#1	.00376	.00868	.05229	.44694	.02667
#2	.00325	.00794	.05249	.46982	.02776

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 18:39:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20850	.00295	.00938	.92390	.01077
Stddev	.00259	.00001	.00005	.00103	.00004
%RSD	1.2424	.42958	.54583	.11156	.36944

#1	.20667	.00294	.00941	.92318	.01074
#2	.21033	.00296	.00934	.92463	.01080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01166	.20721	.01688	.02028	.48620
Stddev	.00098	.00088	.00052	.00018	.01210
%RSD	8.3904	.42492	3.0877	.87094	2.4884

#1	.01235	.20783	.01724	.02016	.49476
#2	.01097	.20658	.01651	.02041	.47765

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01085	.00523	.00549	.02060	.00446
Stddev	.00032	.00009	.00066	.00006	.00048
%RSD	2.9770	1.6323	12.085	.30393	10.788

#1	.01107	.00517	.00596	.02065	.00412
#2	.01062	.00529	.00502	.02056	.00480

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 18:39:50 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01088**
 Stddev .00067
 %RSD 6.1220

#1 **.01135**
 #2 **.01041**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3183.3	3120.9	24972.	2984.3
Stddev	2.2	1.4	109.	.4
%RSD	.06937	.04434	.43489	.01190
#1	3181.8	3119.9	24895.	2984.1
#2	3184.9	3121.9	25049.	2984.6

Sample Name: 480-144352-d-4-a Acquired: 11/2/2018 18:43:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00102	-.05477	.00509	.11871	.26154
Stddev	.00136	.01556	.00081	.00024	.00037
%RSD	133.30	28.412	16.018	.19983	.14286

#1	-.00006	-.06577	.00451	.11854	.26128
#2	-.00199	-.04377	.00566	.11888	.26181

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	165.81	.00035	-.0114	.00005
Stddev	.00017	.14	.00009	.0173	.00009
%RSD	223.56	.08223	24.605	150.9	189.92

#1	-.00004	165.71	.00041	.0008	-.00002
#2	.00020	165.90	.00029	-.0237	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00386	-.00171	.02636	.62101	.01359
Stddev	.00002	.00002	.00084	.06529	.00028
%RSD	.51528	1.3424	3.1997	10.513	2.0395

#1	.00388	-.00169	.02576	.66718	.01379
#2	.00385	-.00172	.02696	.57485	.01340

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-4-a Acquired: 11/2/2018 18:43:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	74.461	.01023	.00140	15.320	.00610
Stddev	.063	.00005	.00010	.048	.00027
%RSD	.08411	.50791	7.2578	.31560	4.3589

#1	74.416	.01020	.00133	15.354	.00591
#2	74.505	.01027	.00147	15.286	.00629

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00210	1.6109	-.00408	-.00411	17.286
Stddev	.00104	.0039	.00075	.00020	.034
%RSD	49.454	.24044	18.351	4.8697	.19744

#1	.00283	1.6082	-.00355	-.00425	17.262
#2	.00137	1.6137	-.00461	-.00397	17.311

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.63755	-.00000	.00303	-.00197
Stddev	.00000	.00054	.00021	.00187	.00025
%RSD	1.7444	.08464	6300.3	61.819	12.467

#1	-.00028	.63793	.00015	.00171	-.00180
#2	-.00029	.63717	-.00015	.00435	-.00215

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-4-a Acquired: 11/2/2018 18:43:32 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00364**
 Stddev .00033
 %RSD 9.0664

#1 **.00388**
 #2 **.00341**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3070.0	3009.6	24685.	2974.0
Stddev	7.3	6.6	52.	.1
%RSD	.23709	.21887	.21211	.00198

#1	3075.1	3014.3	24722.	2974.0
#2	3064.9	3005.0	24648.	2973.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.302%	94.106%	98.216%	98.595%
Range				

Sample Name: 480-144352-d-5-a Acquired: 11/2/2018 18:47:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	-.07162	.00124	.10073	.33826
Stddev	.00069	.00951	.00024	.00042	.00074
%RSD	174.31	13.284	19.071	.41590	.21793

#1	-.00088	-.07834	.00141	.10103	.33774
#2	.00009	-.06489	.00108	.10043	.33878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	166.72	.00057	.0026	.00006
Stddev	.00003	.48	.00003	.0288	.00006
%RSD	28.932	.28612	5.6233	1091.	88.845

#1	.00009	166.39	.00055	.0230	.00010
#2	.00014	167.06	.00060	-.0177	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.00127	.00489	.79791	.02200
Stddev	.00009	.00007	.00139	.03660	.00027
%RSD	334.80	5.7211	28.456	4.5866	1.2333

#1	.00009	-.00133	.00587	.82379	.02181
#2	-.00004	-.00122	.00390	.77204	.02219

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-5-a Acquired: 11/2/2018 18:47:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	82.341	.00087	.00088	12.344	.00194
Stddev	.319	.00016	.00000	.024	.00002
%RSD	.38752	18.337	.28502	.19224	.82830

#1	82.116	.00075	.00088	12.328	.00195
#2	82.567	.00098	.00088	12.361	.00193

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00214	4.4406	-.00340	-.00507	15.514
Stddev	.00087	.0079	.00254	.00102	.008
%RSD	40.679	.17835	74.648	20.121	.05224

#1	.00275	4.4350	-.00161	-.00434	15.520
#2	.00152	4.4462	-.00520	-.00579	15.508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.70349	.00017	.00366	-.00141
Stddev	.00012	.00262	.00037	.00015	.00004
%RSD	65.655	.37174	213.29	4.2291	2.7862

#1	.00027	.70164	-.00009	.00355	-.00138
#2	.00010	.70534	.00043	.00377	-.00144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-5-a Acquired: 11/2/2018 18:47:11 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00306**
 Stddev .00017
 %RSD 5.4623

#1 **.00295**
 #2 **.00318**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3069.1	3010.3	24708.	2987.9
Stddev	3.5	4.4	106.	13.8
%RSD	.11409	.14497	.42963	.46294

#1	3071.6	3013.4	24783.	2997.7
#2	3066.7	3007.2	24633.	2978.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.274%	94.127%	98.304%	99.057%
Range				

Sample Name: 480-144352-d-6-a Acquired: 11/2/2018 18:50:51 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.01959	.01086	.12208	.67459
Stddev	.00090	.01415	.00244	.00031	.00062
%RSD	759.99	72.239	22.507	.25540	.09211

#1	.00075	-.00958	.01259	.12186	.67415
#2	-.00052	-.02959	.00913	.12230	.67503

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	212.94	.00034	-.0074	.00213
Stddev	.00011	.14	.00005	.0411	.00015
%RSD	196.68	.06668	16.252	559.8	7.0499

#1	.00014	213.04	.00030	-.0364	.00203
#2	-.00002	212.84	.00038	.0217	.00224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00107	-.00105	10.908	1.6866	.04571
Stddev	.00040	.00069	.022	.0254	.00099
%RSD	37.097	65.418	.20131	1.5064	2.1750

#1	.00079	-.00057	10.924	1.6686	.04500
#2	.00135	-.00154	10.893	1.7045	.04641

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-6-a Acquired: 11/2/2018 18:50:51 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	83.235	3.6760	.00132	24.537	.01337
Stddev	.030	.0000	.00022	.010	.00006
%RSD	.03629	.00036	16.466	.04110	.45615

#1	83.214	3.6760	.00116	24.544	.01332
#2	83.257	3.6760	.00147	24.530	.01341

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00462	13.118	-.00207	-.00403	18.335
Stddev	.00094	.024	.00020	.00083	.060
%RSD	20.369	.18572	9.6074	20.595	.32751

#1	.00395	13.135	-.00193	-.00462	18.378
#2	.00528	13.101	-.00221	-.00344	18.293

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.66279	-.00143	.00285	-.00139
Stddev	.00031	.00025	.00043	.00107	.00086
%RSD	287.55	.03811	29.807	37.592	61.826

#1	.00011	.66261	-.00113	.00361	-.00200
#2	-.00033	.66297	-.00173	.00209	-.00078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144352-d-6-a Acquired: 11/2/2018 18:50:51 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00392**
 Stddev .00022
 %RSD 5.6164

#1 **.00408**
 #2 **.00377**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3034.4	2991.0	24715.	2990.4
Stddev	.4	3.4	1.	7.8
%RSD	.01418	.11513	.00350	.25991

#1	3034.7	2993.4	24714.	2984.9
#2	3034.1	2988.6	24715.	2995.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.150%	93.524%	98.332%	99.140%
Range				

Sample Name: 480-144369-b-1-c Acquired: 11/2/2018 18:54:28 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	1.4389	.00201	.04360	.19234
Stddev	.00050	.0433	.00025	.00023	.00053
%RSD	40.954	3.0122	12.640	.53513	.27391

#1	-0.00086	1.4083	.00219	.04344	.19197
#2	-0.00156	1.4696	.00183	.04377	.19271

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00112	7.9512	.00040	.0570	.01943
Stddev	.00005	.0288	.00003	.0473	.00008
%RSD	4.7205	.36258	6.5089	83.10	.40925

#1	.00116	7.9308	.00038	.0904	.01937
#2	.00108	7.9716	.00042	.0235	.01949

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02007	.00270	.73489	2.8523	.00732
Stddev	.00015	.00041	.00013	.0026	.00033
%RSD	.72749	15.028	.01732	.09174	4.5580

#1	.02018	.00299	.73480	2.8505	.00708
#2	.01997	.00241	.73498	2.8542	.00755

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144369-b-1-c Acquired: 11/2/2018 18:54:28 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.8076	.17225	-.00040	238.40	.04905
Stddev	.0122	.00057	.00009	.71	.00021
%RSD	.31981	.32890	22.919	.29626	.43185

#1	3.7990	.17185	-.00034	237.90	.04920
#2	3.8162	.17265	-.00047	238.90	.04891

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00311	6.5062	-.00229	-.00507	7.1990
Stddev	.00033	.0103	.00040	.00400	.0230
%RSD	10.600	.15789	17.634	78.863	.31962

#1	.00334	6.4989	-.00258	-.00224	7.2153
#2	.00288	6.5135	-.00201	-.00789	7.1827

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00090	.17747	.00030	.00509	-.00012
Stddev	.00009	.00036	.00006	.00003	.00059
%RSD	9.9070	.20146	21.178	.63617	482.44

#1	.00084	.17722	.00025	.00506	.00029
#2	.00096	.17772	.00034	.00511	-.00054

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144369-b-1-c Acquired: 11/2/2018 18:54:28 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.12832**
 Stddev .00033
 %RSD .26027

#1 **.12809**
 #2 **.12856**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3132.0	3116.4	25365.	3006.5
Stddev	2.7	2.8	47.	19.9
%RSD	.08701	.09024	.18429	.66159

#1	3130.1	3118.4	25399.	3020.6
#2	3133.9	3114.4	25332.	2992.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.31%	97.445%	100.92%	99.673%
Range				

Sample Name: 480-144369-b-2-c Acquired: 11/2/2018 18:58:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.11046	.00196	.06176	.03312
Stddev	.00120	.00899	.00096	.00000	.00012
%RSD	354.72	8.1384	49.286	.00298	.36150

#1	-.00119	.10410	.00264	.06175	.03320
#2	.00051	.11682	.00127	.06176	.03303

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	16.419	.00051	.0298	.12712
Stddev	.00002	.034	.00011	.0105	.00030
%RSD	50.650	.20778	21.122	35.37	.23625

#1	.00003	16.443	.00058	.0224	.12733
#2	.00007	16.395	.00043	.0373	.12691

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00879	.02656	7.0012	5.7125	.00172
Stddev	.00032	.00084	.0110	.0519	.00008
%RSD	3.6815	3.1726	.15768	.90838	4.7441

#1	.00857	.02716	7.0090	5.6758	.00177
#2	.00902	.02596	6.9934	5.7492	.00166

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144369-b-2-c Acquired: 11/2/2018 18:58:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.2953	3.3844	.00288	178.04	1.3391
Stddev	.0195	.0132	.00019	.38	.0003
%RSD	.30905	.39125	6.7079	.21540	.01859

#1	6.3091	3.3938	.00274	177.77	1.3393
#2	6.2816	3.3751	.00301	178.31	1.3390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00094	23.893	-.00175	-.00490	5.7846
Stddev	.00017	.082	.00239	.00141	.0231
%RSD	18.472	.34479	136.31	28.717	.39880

#1	.00081	23.952	-.00344	-.00390	5.7683
#2	.00106	23.835	-.00006	-.00589	5.8009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.08053	.00002	.00433	-.00065
Stddev	.00024	.00013	.00095	.00111	.00021
%RSD	97.959	.15704	3940.7	25.732	32.855

#1	.00042	.08044	.00069	.00512	-.00050
#2	.00008	.08062	-.00064	.00354	-.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144369-b-2-c Acquired: 11/2/2018 18:58:06 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.10989**
 Stddev .00114
 %RSD 1.0415

#1 **.11070**
 #2 **.10908**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3155.9	3091.2	25287.	3000.5
Stddev	.1	3.7	86.	.6
%RSD	.00341	.12030	.34111	.02109

#1	3155.8	3088.6	25226.	3000.1
#2	3155.9	3093.9	25348.	3000.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.08%	96.658%	100.61%	99.475%
Range				

Sample Name: 480-143690-b-1-b Acquired: 11/2/2018 19:01:43 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00091	-.05597	.00120	1.2342	.30417
Stddev	.00037	.02539	.00180	.0010	.00010
%RSD	40.676	45.365	150.09	.07929	.03214

#1	-.00065	-.03801	-.00007	1.2349	.30410
#2	-.00118	-.07392	.00248	1.2335	.30424

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	17.060	-.00011	.0280	-.00006
Stddev	.00004	.010	.00005	.0446	.00004
%RSD	55.908	.06089	47.905	159.1	69.457

#1	.00010	17.067	-.00007	-.0035	-.00009
#2	.00004	17.052	-.00014	.0595	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	-.00127	.18155	1.0961	.00478
Stddev	.00023	.00012	.00132	.0276	.00049
%RSD	40.966	9.2663	.72590	2.5181	10.204

#1	-.00071	-.00119	.18062	1.0766	.00443
#2	-.00039	-.00136	.18248	1.1156	.00512

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143690-b-1-b Acquired: 11/2/2018 19:01:43 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.7105	.00946	.08678	54.423	.00076
Stddev	.0134	.00004	.00031	.116	.00023
%RSD	.23458	.46753	.35421	.21277	30.463

#1	5.7199	.00943	.08700	54.505	.00092
#2	5.7010	.00949	.08656	54.341	.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.06849	-.00268	-.00273	7.3410
Stddev	.00096	.00150	.00170	.00046	.0407
%RSD	163.85	2.1886	63.227	16.671	.55453

#1	.00126	.06955	-.00388	-.00241	7.3122
#2	-.00009	.06743	-.00148	-.00305	7.3698

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	2.1095	-.00013	.00345	-.00108
Stddev	.00018	.0054	.00007	.00214	.00008
%RSD	48.368	.25672	53.183	62.009	7.6234

#1	-.00024	2.1133	-.00017	.00496	-.00102
#2	-.00050	2.1057	-.00008	.00194	-.00114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143690-b-1-b Acquired: 11/2/2018 19:01:43 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00294**
 Stddev .00014
 %RSD 4.8418

#1 **.00304**
 #2 **.00284**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3184.1	3100.4	24947.	3014.8
Stddev	1.1	1.0	61.	2.1
%RSD	.03501	.03195	.24304	.07130

#1	3183.3	3101.1	24905.	3016.3
#2	3184.9	3099.7	24990.	3013.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.99%	96.944%	99.258%	99.950%
Range				

Sample Name: 480-143690-b-2-b Acquired: 11/2/2018 19:05:23 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	-.04278	.00064	.94539	2.5192
Stddev	.00002	.00746	.00157	.00045	.0024
%RSD	4.8406	17.447	244.48	.04771	.09389

#1	-.00043	-.04805	-.00047	.94571	2.5209
#2	-.00040	-.03750	.00175	.94507	2.5176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	12.751	-.00022	-.0028	-.00051
Stddev	.00007	.052	.00017	.0408	.00023
%RSD	544.49	.40488	77.780	1482.	45.805

#1	.00006	12.715	-.00010	.0261	-.00035
#2	-.00004	12.788	-.00035	-.0316	-.00068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00127	.07108	1.1765	.00372
Stddev	.00007	.00036	.00255	.0063	.00197
%RSD	192.68	28.334	3.5828	.53641	52.950

#1	-.00009	-.00153	.06928	1.1810	.00511
#2	.00001	-.00102	.07288	1.1720	.00233

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143690-b-2-b Acquired: 11/2/2018 19:05:23 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.7407	.00503	.05057	56.434	.00071
Stddev	.0503	.00003	.00029	.108	.00033
%RSD	1.0601	.56996	.57469	.19157	46.768

#1	4.7762	.00505	.05078	56.511	.00094
#2	4.7051	.00501	.05037	56.358	.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00103	1.6677	-.00307	-.00673	6.0058
Stddev	.00014	.0025	.00280	.00159	.0091
%RSD	13.069	.14872	90.919	23.607	.15087

#1	.00113	1.6694	-.00505	-.00560	5.9994
#2	.00094	1.6659	-.00110	-.00785	6.0122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	5.0888	.00036	.00259	-.00048
Stddev	.00051	.0016	.00007	.00049	.00014
%RSD	160.23	.03224	19.114	19.007	28.525

#1	-.00004	5.0899	.00031	.00224	-.00038
#2	.00068	5.0876	.00041	.00294	-.00058

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143690-b-2-b Acquired: 11/2/2018 19:05:23 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00260**
 Stddev .00096
 %RSD 36.862

#1 **.00327**
 #2 **.00192**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3189.3	3104.4	25082.	2987.5
Stddev	2.5	5.9	318.	16.5
%RSD	.07869	.19121	1.2665	.55157

#1	3187.5	3100.2	24857.	2999.2
#2	3191.1	3108.6	25306.	2975.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.16%	97.070%	99.792%	99.045%
Range				

Sample Name: 480-143690-b-3-b Acquired: 11/2/2018 19:09:07 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00111	-.04975	.00121	.89275	.64096
Stddev	.00039	.00572	.00258	.00051	.00219
%RSD	35.518	11.493	213.25	.05713	.34213

#1	-.00139	-.04570	-.00061	.89311	.63941
#2	-.00083	-.05379	.00303	.89239	.64252

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	12.617	-.00008	-.0470	-.00004
Stddev	.00004	.001	.00006	.0491	.00008
%RSD	21.339	.01045	72.747	104.5	190.16

#1	.00018	12.618	-.00011	-.0123	.00001
#2	.00024	12.616	-.00004	-.0818	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	-.00157	.07550	1.2622	.00470
Stddev	.00008	.00004	.00436	.0394	.00002
%RSD	32.040	2.4324	5.7739	3.1196	.44316

#1	-.00019	-.00154	.07858	1.2900	.00472
#2	-.00030	-.00160	.07241	1.2344	.00469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143690-b-3-b Acquired: 11/2/2018 19:09:07 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.0679	.02394	.06032	51.082	.00097
Stddev	.0486	.00024	.00025	.080	.00009
%RSD	.95839	1.0117	.40802	.15578	8.8714

#1	5.0336	.02377	.06049	51.138	.00091
#2	5.1023	.02411	.06015	51.026	.00103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00085	.06074	-.00239	-.00475	5.7114
Stddev	.00025	.00045	.00134	.00202	.0200
%RSD	29.123	.74036	56.218	42.552	.34963

#1	.00102	.06042	-.00144	-.00332	5.6972
#2	.00067	.06106	-.00334	-.00618	5.7255

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	2.6018	.00049	.00318	-.00062
Stddev	.00066	.0014	.00007	.00061	.00025
%RSD	1390.2	.05573	14.207	19.082	40.253

#1	-.00042	2.6008	.00044	.00275	-.00079
#2	.00052	2.6029	.00054	.00361	-.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143690-b-3-b Acquired: 11/2/2018 19:09:07 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00200**
 Stddev .00034
 %RSD 16.777

#1 **.00177**
 #2 **.00224**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3193.6	3105.7	24990.	2981.9
Stddev	3.2	3.1	213.	15.3
%RSD	.10132	.09962	.85326	.51221

#1	3191.3	3103.5	25141.	2992.7
#2	3195.9	3107.9	24839.	2971.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.30%	97.111%	99.427%	98.858%
Range				

Sample Name: 480-143691-a-1-a Acquired: 11/2/2018 19:12:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00079	-.06692	.00093	.07362	.11965
Stddev	.00019	.01561	.00004	.00017	.00047
%RSD	24.284	23.330	4.5206	.23436	.39201

#1	-.00065	-.05588	.00096	.07350	.11932
#2	-.00092	-.07796	.00090	.07374	.11998

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	116.38	-.00011	-.0073	.00050
Stddev	.00003	.03	.00013	.0064	.00020
%RSD	81.427	.02192	118.96	87.12	40.062

#1	.00002	116.36	-.00020	-.0028	.00036
#2	.00006	116.39	-.00002	-.0118	.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	-.00025	.16553	10.773	.00235
Stddev	.00006	.00039	.00568	.034	.00059
%RSD	27.832	158.69	3.4307	.31473	25.106

#1	-.00017	.00003	.16151	10.749	.00277
#2	-.00026	-.00052	.16954	10.797	.00193

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143691-a-1-a Acquired: 11/2/2018 19:12:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.048	.15032	.00062	143.85	.00468
Stddev	.004	.00045	.00028	.27	.00018
%RSD	.03718	.30201	45.275	.18818	3.9365

#1	11.045	.15000	.00042	143.66	.00481
#2	11.051	.15064	.00082	144.04	.00455

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	16.925	-.00264	-.00631	5.3865
Stddev	.00095	.008	.00063	.00162	.0416
%RSD	271.45	.04812	23.975	25.732	.77162

#1	-.00032	16.919	-.00219	-.00746	5.3571
#2	.00102	16.930	-.00309	-.00517	5.4159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00094	2.3073	.00020	.00451	-.00004
Stddev	.00044	.0010	.00012	.00037	.00034
%RSD	46.775	.04139	60.346	8.2581	787.18

#1	.00063	2.3080	.00028	.00425	.00020
#2	.00125	2.3066	.00011	.00477	-.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143691-a-1-a Acquired: 11/2/2018 19:12:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.64503**
 Stddev .00245
 %RSD .37935

#1 **.64676**
 #2 **.64330**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3104.5	3048.8	24972.	2986.6
Stddev	2.7	3.2	.	1.9
%RSD	.08553	.10406	.00052	.06476

#1	3106.4	3051.0	24972.	2985.2
#2	3102.7	3046.5	24972.	2988.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.42%	95.331%	99.355%	99.014%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 19:16:26 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56420	25.491	.52536	.50402	.51241
Stddev	.00149	.201	.00210	.00016	.00023
%RSD	.26373	.78969	.40016	.03177	.04448

#1	.56525	25.633	.52388	.50391	.51257
#2	.56315	25.348	.52685	.50414	.51224

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50098	26.505	.52767	-.0006	.50596
Stddev	.00201	.051	.00082	.0269	.00062
%RSD	.40030	.19405	.15605	4269.	.12282

#1	.50240	26.542	.52825	-.0197	.50639
#2	.49956	26.469	.52709	.0184	.50552

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50758	.53043	26.308	24.749	.49382
Stddev	.00177	.00080	.038	.093	.00116
%RSD	.34933	.15160	.14352	.37407	.23429

#1	.50633	.53100	26.335	24.814	.49300
#2	.50883	.52986	26.282	24.683	.49464

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 19:16:26 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	25.999	.53308	.49863	24.694	.50193
Stddev	.053	.00124	.00270	.188	.00059
%RSD	.20513	.23344	.54160	.76240	.11727

#1	26.036	.53396	.50054	24.827	.50151
#2	25.961	.53220	.49672	24.561	.50234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51075	27.031	.51560	.51789	25.930
Stddev	.00071	.028	.00097	.00184	.081
%RSD	.13951	.10382	.18834	.35549	.31323

#1	.51126	27.051	.51629	.51919	25.987
#2	.51025	27.011	.51491	.51658	25.872

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53284	.52419	.52460	.48604	.50399
Stddev	.00071	.00152	.00134	.00243	.00075
%RSD	.13371	.29078	.25617	.50064	.14944

#1	.53233	.52527	.52555	.48432	.50452
#2	.53334	.52311	.52365	.48776	.50345

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 19:16:26 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51588**
 Stddev .00101
 %RSD .19603

#1 .51660
 #2 .51517

Check ? Chk Pass
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3160.1	3106.7	24862.	2982.5
Stddev	11.3	10.8	73.	3.4
%RSD	.35697	.34645	.29370	.11465
#1	3152.1	3099.1	24810.	2984.9
#2	3168.1	3114.3	24913.	2980.1

Sample Name: ccb-4975309 Acquired: 11/2/2018 19:19:53 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00117	-.02380	.00102	.00014	.00004
Stddev	.00101	.05295	.00051	.00005	.00003
%RSD	86.582	222.51	50.223	36.636	89.321

#1	-.00188	.01365	.00138	.00011	.00001
#2	-.00045	-.06124	.00066	.00018	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00386	-.00002	-.0450	.00023
Stddev	.00011	.00052	.00002	.0314	.00007
%RSD	1689.8	13.526	95.522	69.90	30.457

#1	.00008	.00423	-.00001	-.0672	.00028
#2	-.00007	.00349	-.00003	-.0228	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	-.00102	.00104	-.00494	-.00029
Stddev	.00019	.00029	.00009	.03858	.00036
%RSD	26.275	28.719	8.6167	781.37	126.06

#1	.00083	-.00082	.00098	.02234	-.00055
#2	.00057	-.00123	.00111	-.03222	-.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 19:19:53 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00467	.00010	.00051	-.01382	.00012
Stddev	.00141	.00005	.00018	.00302	.00016
%RSD	30.123	54.496	34.685	21.867	129.67

#1	.00367	.00014	.00038	-.01595	.00023
#2	.00566	.00006	.00063	-.01168	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00053	-.00135	-.00252	-.00129	-.03437
Stddev	.00089	.00077	.00143	.00045	.01111
%RSD	166.55	57.214	56.771	34.456	32.335

#1	.00116	-.00189	-.00151	-.00161	-.04223
#2	-.00009	-.00080	-.00354	-.00098	-.02651

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-.00014	-.00025	.00142	-.00072
Stddev	.00071	.00004	.00057	.00168	.00020
%RSD	698.96	30.043	226.62	118.70	28.169

#1	.00060	-.00011	-.00066	.00261	-.00057
#2	-.00040	-.00017	.00015	.00023	-.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 19:19:53 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00002**
 Stddev .00014
 %RSD 642.55

#1 **.00012**
 #2 **-.00008**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3160.4	3103.3	24598.	2959.6
Stddev	.4	.9	48.	6.3
%RSD	.01162	.02797	.19527	.21372
#1	3160.1	3104.0	24564.	2955.1
#2	3160.6	3102.7	24632.	2964.1

Sample Name: ccvl-4970377 Acquired: 11/2/2018 19:23:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00488	.15559	.01542	.01902	.00208
Stddev	.00017	.03193	.00183	.00012	.00007
%RSD	3.4661	20.522	11.848	.62069	3.2682

#1	.00476	.17817	.01413	.01894	.00213
#2	.00499	.13301	.01671	.01911	.00204

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00212	.53404	.00207	.0409	.00421
Stddev	.00007	.00108	.00000	.0160	.00010
%RSD	3.2229	.20250	.14860	39.11	2.3470

#1	.00217	.53480	.00206	.0296	.00414
#2	.00207	.53327	.00207	.0522	.00428

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00433	.00731	.05105	.48654	.02737
Stddev	.00023	.00093	.00369	.08912	.00169
%RSD	5.3156	12.679	7.2358	18.317	6.1625

#1	.00449	.00666	.05366	.42352	.02856
#2	.00417	.00797	.04844	.54956	.02618

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 19:23:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20884	.00302	.00934	.95171	.01063
Stddev	.00253	.00004	.00016	.01185	.00004
%RSD	1.2119	1.1652	1.6826	1.2449	.42050

#1	.20705	.00304	.00923	.96009	.01066
#2	.21063	.00299	.00946	.94333	.01060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01116	.20651	.01666	.02181	.49645
Stddev	.00087	.00147	.00042	.00036	.01671
%RSD	7.8340	.71051	2.5078	1.6549	3.3656

#1	.01178	.20547	.01696	.02155	.50826
#2	.01054	.20755	.01637	.02206	.48463

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01075	.00514	.00594	.02125	.00446
Stddev	.00034	.00017	.00018	.00001	.00019
%RSD	3.1765	3.2215	3.0540	.02824	4.3364

#1	.01100	.00526	.00581	.02125	.00432
#2	.01051	.00503	.00606	.02125	.00459

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 19:23:37 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01058**
 Stddev .00078
 %RSD 7.3918

#1 **.01114**
 #2 **.01003**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3188.9	3143.8	24825.	2964.8
Stddev	3.6	3.1	51.	13.5
%RSD	.11298	.09745	.20737	.45397
#1	3191.4	3146.0	24789.	2955.2
#2	3186.3	3141.6	24861.	2974.3

Sample Name: 480-143691-a-2-a Acquired: 11/2/2018 19:27:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00097	-.02611	.02325	.06904	.16468
Stddev	.00013	.00383	.00012	.00040	.00015
%RSD	13.273	14.662	.53658	.57850	.09243

#1	-.00106	-.02882	.02334	.06876	.16457
#2	-.00088	-.02341	.02316	.06932	.16479

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	141.92	.00008	-.0227	.00010
Stddev	.00022	1.08	.00005	.0595	.00009
%RSD	203.74	.76190	68.774	261.7	90.456

#1	.00027	142.69	.00004	.0193	.00004
#2	-.00005	141.16	.00011	-.0648	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	-.00205	1.6114	1.5314	.00390
Stddev	.00063	.00009	.0026	.0448	.00086
%RSD	182.93	4.4275	.16083	2.9265	22.080

#1	-.00010	-.00199	1.6096	1.4997	.00450
#2	.00078	-.00212	1.6133	1.5631	.00329

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143691-a-2-a Acquired: 11/2/2018 19:27:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	24.802	.36665	.00260	37.039	.00026
Stddev	.004	.00013	.00039	.205	.00010
%RSD	.01415	.03545	15.141	.55431	37.422

#1	24.804	.36656	.00232	37.184	.00019
#2	24.799	.36674	.00288	36.894	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00119	61.904	-.00172	-.00234	8.8121
Stddev	.00030	.073	.00028	.00086	.0318
%RSD	25.438	.11725	16.494	36.824	.36101

#1	.00098	61.852	-.00192	-.00295	8.8346
#2	.00140	61.955	-.00152	-.00173	8.7896

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	1.6667	-.00014	.00386	-.00118
Stddev	.00027	.0132	.00058	.00106	.00014
%RSD	2366.7	.79301	408.44	27.518	11.582

#1	.00020	1.6761	.00027	.00461	-.00108
#2	-.00018	1.6574	-.00056	.00311	-.00128

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143691-a-2-a Acquired: 11/2/2018 19:27:19 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **1.5126**
 Stddev .0046
 %RSD .30618

#1 1.5159
 #2 1.5093

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3122.4	3057.6	25016.	2948.1
Stddev	2.3	.6	36.	23.3
%RSD	.07231	.01973	.14321	.78947

#1	3120.8	3057.2	24991.	2931.6
#2	3123.9	3058.0	25041.	2964.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.00%	95.607%	99.530%	97.737%
Range				

Sample Name: 480-143691-a-3-a Acquired: 11/2/2018 19:30:57 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00119	-.06768	.00004	.05764	.06383
Stddev	.00120	.00943	.00223	.00032	.00012
%RSD	100.97	13.925	4963.3	.56019	.18354

#1	-.00034	-.07435	.00162	.05741	.06375
#2	-.00203	-.06102	-.00153	.05787	.06392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	188.53	.00010	.0367	.00043
Stddev	.00004	.29	.00010	.0503	.00017
%RSD	902.65	.15225	99.857	137.1	39.746

#1	-.00003	188.74	.00017	.0723	.00031
#2	.00002	188.33	.00003	.0011	.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	-.00031	.01520	4.8753	.00175
Stddev	.00014	.00046	.00383	.0188	.00093
%RSD	74.846	148.63	25.211	.38621	53.018

#1	.00028	-.00064	.01249	4.8620	.00241
#2	.00009	.00002	.01791	4.8887	.00110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143691-a-3-a Acquired: 11/2/2018 19:30:57 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	34.106	.09010	.00103	8.1360	.00115
Stddev	.177	.00083	.00034	.0613	.00026
%RSD	.51979	.91698	32.961	.75368	22.768

#1	33.981	.08951	.00079	8.0926	.00133
#2	34.231	.09068	.00127	8.1793	.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00163	F 96.076	-.00236	-.00388	7.4003
Stddev	.00010	.146	.00018	.00194	.0558
%RSD	6.0689	.15175	7.6320	50.131	.75383

#1	.00170	96.179	-.00223	-.00525	7.4397
#2	.00156	95.973	-.00248	-.00250	7.3608

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	1.5555	.00036	.00384	-.00048
Stddev	.00026	.0012	.00011	.00122	.00038
%RSD	108.39	.07592	30.317	31.888	77.642

#1	-.00006	1.5563	.00044	.00297	-.00075
#2	-.00043	1.5546	.00028	.00470	-.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143691-a-3-a Acquired: 11/2/2018 19:30:57 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22210**
 Stddev .00042
 %RSD .18907

#1 **.22240**
 #2 **.22181**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3118.6	3053.3	25211.	2983.9
Stddev	1.0	4.1	180.	4.8
%RSD	.03050	.13345	.71454	.16059

#1	3119.2	3056.2	25338.	2980.5
#2	3117.9	3050.4	25084.	2987.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.87%	95.471%	100.31%	98.924%
Range				

Sample Name: 480-144015-a-1-a Acquired: 11/2/2018 19:34:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00140	-.05021	.00182	.84652	.62242
Stddev	.00059	.00193	.00235	.00003	.00084
%RSD	41.962	3.8488	128.65	.00383	.13485

#1	-.00099	-.05158	.00349	.84655	.62301
#2	-.00182	-.04885	.00016	.84650	.62183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	14.609	-.00013	-.0102	.00002
Stddev	.00001	.136	.00015	.0233	.00001
%RSD	7.9575	.92869	116.76	228.3	43.131

#1	.00012	14.513	-.00023	.0063	.00001
#2	.00014	14.705	-.00002	-.0267	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00157	-.00130	.06505	1.1417	.00332
Stddev	.00012	.00003	.00291	.0351	.00136
%RSD	7.6283	1.9691	4.4785	3.0705	40.897

#1	.00148	-.00132	.06711	1.1169	.00428
#2	.00165	-.00128	.06299	1.1665	.00236

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-1-a Acquired: 11/2/2018 19:34:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.1991	.00716	.04684	51.540	.00129
Stddev	.0230	.00012	.00012	.148	.00006
%RSD	.44152	1.6548	.26130	.28785	4.5244

#1	5.2153	.00725	.04675	51.435	.00133
#2	5.1828	.00708	.04693	51.645	.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.11919	-.00396	-.00423	5.7132
Stddev	.00006	.00205	.00114	.00306	.0328
%RSD	789.16	1.7190	28.673	72.400	.57338

#1	.00005	.12064	-.00316	-.00639	5.6900
#2	-.00004	.11774	-.00477	-.00206	5.7364

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00105	3.2983	.00057	.00416	-.00064
Stddev	.00012	.0122	.00041	.00092	.00012
%RSD	11.198	.36960	72.231	22.131	18.925

#1	.00113	3.2897	.00028	.00351	-.00073
#2	.00097	3.3069	.00086	.00481	-.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-1-a Acquired: 11/2/2018 19:34:36 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00488**
 Stddev .00013
 %RSD 2.6201

#1 **.00497**
 #2 **.00479**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3200.0	3115.2	25211.	3028.2
Stddev	7.3	6.7	40.	30.5
%RSD	.22823	.21513	.15888	1.0085

#1	3205.2	3119.9	25239.	3049.8
#2	3194.9	3110.5	25183.	3006.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.51%	97.408%	100.31%	100.39%
Range				

Sample Name: 480-144015-a-2-a Acquired: 11/2/2018 19:38:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00137	-.03777	-.00041	.89567	.49956
Stddev	.00023	.00370	.00192	.00144	.00154
%RSD	17.048	9.7907	472.66	.16089	.30887

#1	-.00154	-.03516	.00095	.89669	.50065
#2	-.00121	-.04038	-.00176	.89465	.49847

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	16.503	-.00003	-.0255	-.00011
Stddev	.00003	.061	.00002	.0206	.00019
%RSD	246.94	.37144	71.895	80.71	169.60

#1	.00004	16.460	-.00004	-.0109	.00002
#2	-.00001	16.546	-.00001	-.0401	-.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.00155	.18088	1.0758	.00593
Stddev	.00020	.00073	.00485	.0371	.00106
%RSD	98.162	46.896	2.6827	3.4436	17.796

#1	-.00006	-.00104	.17745	1.1020	.00668
#2	-.00034	-.00207	.18431	1.0496	.00518

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-2-a Acquired: 11/2/2018 19:38:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.1289	.00559	.06920	53.181	.00074
Stddev	.0201	.00003	.00037	.455	.00037
%RSD	.32848	.46381	.52989	.85599	50.393

#1	6.1431	.00561	.06946	53.503	.00048
#2	6.1147	.00557	.06895	52.859	.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.07448	-.00269	-.00508	6.0798
Stddev	.00077	.00039	.00234	.00140	.0019
%RSD	196.48	.52622	87.163	27.601	.03160

#1	-.00015	.07476	-.00434	-.00409	6.0811
#2	.00093	.07420	-.00103	-.00607	6.0784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00093	4.2790	.00046	.00177	-.00082
Stddev	.00043	.0034	.00019	.00028	.00003
%RSD	46.459	.07914	42.578	15.733	3.4797

#1	.00123	4.2814	.00059	.00197	-.00084
#2	.00062	4.2766	.00032	.00158	-.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-2-a Acquired: 11/2/2018 19:38:16 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00343**
 Stddev .00090
 %RSD 26.192

#1 **.00406**
 #2 **.00279**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3195.8	3120.6	25070.	2997.0
Stddev	3.1	2.3	72.	3.9
%RSD	.09584	.07370	.28800	.12951

#1	3193.6	3118.9	25121.	2999.7
#2	3197.9	3122.2	25019.	2994.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.37%	97.575%	99.745%	99.359%
Range				

Sample Name: 480-144015-a-3-a Acquired: 11/2/2018 19:41:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	-.02270	.00003	1.1294	.83251
Stddev	.00013	.00804	.00047	.0004	.00130
%RSD	26.294	35.393	1523.9	.03775	.15587

#1	-.00041	-.01702	.00036	1.1291	.83159
#2	-.00060	-.02838	-.00030	1.1297	.83343

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	21.197	-.00002	-.0132	-.00001
Stddev	.00000	.006	.00003	.0453	.00006
%RSD	.24619	.02658	189.33	343.8	1173.1

#1	.00021	21.201	-.00004	-.0452	.00004
#2	.00021	21.193	.00001	.0189	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	-.00185	.23280	1.2129	.00798
Stddev	.00050	.00016	.00644	.0726	.00152
%RSD	735.74	8.8317	2.7652	5.9832	19.100

#1	-.00029	-.00174	.23736	1.2642	.00906
#2	.00042	-.00197	.22825	1.1616	.00690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-3-a Acquired: 11/2/2018 19:41:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.5853	.00820	.06061	55.697	.00079
Stddev	.0335	.00001	.00044	.205	.00022
%RSD	.44101	.06380	.72519	.36776	27.484

#1	7.5616	.00821	.06092	55.552	.00094
#2	7.6089	.00820	.06030	55.841	.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.08986	-.00241	-.00563	7.3325
Stddev	.00050	.00120	.00052	.00041	.0307
%RSD	29.033	1.3330	21.426	7.3154	.41900

#1	.00206	.08901	-.00277	-.00534	7.3108
#2	.00136	.09070	-.00204	-.00593	7.3542

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	4.5185	.00071	.00352	-.00120
Stddev	.00036	.0060	.00009	.00002	.00030
%RSD	670.28	.13161	12.371	.43964	24.793

#1	-.00020	4.5143	.00065	.00351	-.00099
#2	.00031	4.5227	.00077	.00353	-.00141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-3-a Acquired: 11/2/2018 19:41:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00245**
 Stddev .00063
 %RSD 25.817

#1 **.00289**
 #2 **.00200**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3183.0	3102.0	25074.	2998.1
Stddev	.3	2.2	91.	4.8
%RSD	.00943	.07099	.36145	.16099

#1	3183.2	3103.5	25138.	2994.6
#2	3182.7	3100.4	25010.	3001.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.96%	96.994%	99.762%	99.394%
Range				

Sample Name: 480-144015-a-4-a Acquired: 11/2/2018 19:45:34 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00040	-.00917	.00224	1.2836	1.4738
Stddev	.00115	.00142	.00133	.0012	.0046
%RSD	287.67	15.477	59.241	.09355	.31344

#1	.00041	-.01018	.00130	1.2827	1.4706
#2	-.00121	-.00817	.00317	1.2844	1.4771

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	23.179	-.00021	-.0222	-.00021
Stddev	.00008	.128	.00013	.1029	.00008
%RSD	66.690	.55015	64.448	462.7	39.655

#1	.00017	23.089	-.00030	.0505	-.00027
#2	.00006	23.269	-.00011	-.0950	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00228	.29674	1.3539	.00772
Stddev	.00010	.00061	.00305	.0098	.00004
%RSD	118.39	26.753	1.0281	.72550	.57438

#1	.00001	-.00185	.29890	1.3608	.00769
#2	.00015	-.00271	.29459	1.3469	.00775

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-4-a Acquired: 11/2/2018 19:45:34 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.0551	.01092	.05945	55.250	.00054
Stddev	.0230	.00014	.00022	.308	.00026
%RSD	.28510	1.3225	.37172	.55725	48.932

#1	8.0389	.01082	.05961	55.468	.00035
#2	8.0714	.01103	.05930	55.032	.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00130	.11725	-.00187	-.00638	8.0282
Stddev	.00133	.00106	.00008	.00199	.0034
%RSD	102.21	.90653	4.2705	31.095	.04170

#1	.00036	.11649	-.00181	-.00498	8.0258
#2	.00224	.11800	-.00193	-.00779	8.0306

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	3.6928	.00043	.00401	-.00110
Stddev	.00005	.0205	.00019	.00048	.00083
%RSD	7.2958	.55548	43.562	11.969	75.523

#1	.00059	3.6783	.00056	.00368	-.00051
#2	.00065	3.7073	.00030	.00435	-.00169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144015-a-4-a Acquired: 11/2/2018 19:45:34 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00284**
 Stddev .00014
 %RSD 4.7916

#1 **.00294**
 #2 **.00275**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3192.6	3102.2	25133.	3018.5
Stddev	1.1	4.0	175.	4.7
%RSD	.03334	.12795	.69638	.15727

#1	3191.8	3105.1	25256.	3015.2
#2	3193.3	3099.4	25009.	3021.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.27%	97.002%	99.995%	100.07%
Range				

Sample Name: 480-144060-c-1-a Acquired: 11/2/2018 19:49:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	-.05644	.00237	.07571	.18260
Stddev	.00085	.04436	.00052	.00085	.00030
%RSD	339.21	78.586	21.795	1.1291	.16702

#1	-.00085	-.08781	.00274	.07631	.18238
#2	.00035	-.02508	.00201	.07510	.18281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	225.10	.00052	.0394	.00113
Stddev	.00018	.39	.00003	.0158	.00000
%RSD	391.29	.17298	5.7499	39.96	.36345

#1	-.00017	225.38	.00054	.0506	.00112
#2	.00008	224.82	.00050	.0283	.00113

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00128	-.00067	.01740	5.4358	.01343
Stddev	.00033	.00064	.00743	.0330	.00044
%RSD	26.210	96.776	42.723	.60716	3.2813

#1	.00151	-.00112	.02266	5.4124	.01374
#2	.00104	-.00021	.01214	5.4591	.01312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144060-c-1-a Acquired: 11/2/2018 19:49:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	81.170	3.5354	.00098	30.596	.00594
Stddev	.185	.0032	.00021	.143	.00020
%RSD	.22750	.09138	21.454	.46866	3.3013

#1	81.039	3.5331	.00083	30.494	.00607
#2	81.300	3.5377	.00113	30.697	.00580

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00250	80.087	-.00275	-.00406	16.007
Stddev	.00160	.006	.00119	.00310	.111
%RSD	64.020	.00742	43.061	76.318	.69624

#1	.00363	80.091	-.00192	-.00625	15.928
#2	.00137	80.083	-.00359	-.00187	16.086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	.35642	-.00035	.00235	-.00123
Stddev	.00036	.00041	.00005	.00136	.00053
%RSD	307.67	.11480	13.974	57.946	42.826

#1	.00037	.35671	-.00038	.00138	-.00086
#2	-.00014	.35613	-.00031	.00331	-.00160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144060-c-1-a Acquired: 11/2/2018 19:49:19 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00547**
 Stddev .00018
 %RSD 3.2488

#1 **.00535**
 #2 **.00560**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3048.6	2998.4	25002.	3000.5
Stddev	4.9	.6	17.	1.2
%RSD	.16134	.01882	.06901	.04159

#1	3052.1	2998.0	24990.	3001.4
#2	3045.2	2998.8	25014.	2999.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.611%	93.755%	99.474%	99.476%
Range				

Sample Name: 480-144060-c-2-a Acquired: 11/2/2018 19:52:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	-.04880	.00556	.47760	.45665
Stddev	.00094	.00393	.00245	.00091	.00020
%RSD	381.35	8.0514	44.071	.19145	.04399

#1	.00042	-.05158	.00383	.47695	.45680
#2	-.00091	-.04602	.00729	.47825	.45651

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	343.50	.00051	-.0292	.00422
Stddev	.00025	.51	.00002	.0218	.00008
%RSD	949.65	.14792	3.8719	74.55	1.8877

#1	-.00015	343.14	.00050	-.0446	.00417
#2	.00020	343.86	.00053	-.0138	.00428

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00272	-.00110	2.6241	14.241	.02177
Stddev	.00040	.00008	.0092	.066	.00168
%RSD	14.901	7.6021	.35122	.46595	7.7091

#1	.00300	-.00116	2.6176	14.195	.02058
#2	.00243	-.00104	2.6306	14.288	.02295

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144060-c-2-a Acquired: 11/2/2018 19:52:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	113.18	5.7643	.00219	251.47	.03738
Stddev	.29	.0113	.00009	1.47	.00046
%RSD	.25708	.19634	4.3279	.58426	1.2279

#1	113.38	5.7723	.00212	250.43	.03706
#2	112.97	5.7563	.00226	252.51	.03771

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00447	F 135.87	-.00389	-.00313	23.855
Stddev	.00104	.02	.00130	.00116	.095
%RSD	23.264	.01730	33.377	37.210	.39687

#1	.00521	135.89	-.00297	-.00395	23.788
#2	.00374	135.86	-.00480	-.00231	23.922

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.78457	-.00111	.00638	-.00074
Stddev	.00087	.00461	.00036	.00004	.00053
%RSD	920.08	.58758	32.196	.61490	72.002

#1	-.00052	.78131	-.00136	.00636	-.00112
#2	.00071	.78783	-.00086	.00641	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144060-c-2-a Acquired: 11/2/2018 19:52:58 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00808**
 Stddev .00049
 %RSD 6.1106

#1 **.00773**
 #2 **.00843**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2948.0	2949.8	24828.	2924.9
Stddev	3.3	5.1	56.	12.1
%RSD	.11269	.17374	.22371	.41236

#1	2950.3	2953.4	24789.	2916.4
#2	2945.6	2946.2	24867.	2933.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.356%	92.235%	98.784%	96.969%
Range				

Sample Name: mb 480-442164/1-a Acquired: 11/2/2018 19:56:35 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	F -.05334	.00042	.00099	.00006
Stddev	.00097	.00498	.00049	.00022	.00000
%RSD	124.76	9.3396	114.69	21.780	3.4786

#1	-.00146	-.04982	.00008	.00115	.00005
#2	-.00009	-.05686	.00077	.00084	.00006

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.20000			
Low Limit		-.04000			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.01188	-.00007	.0058	.00024
Stddev	.00008	.00790	.00002	.0010	.00003
%RSD	189.78	66.480	28.071	16.72	11.141

#1	.00010	.00629	-.00008	.0051	.00022
#2	-.00001	.01746	-.00005	.0064	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.00183	.00043	-.01190	.00036
Stddev	.00035	.00097	.00615	.03288	.00067
%RSD	172.36	53.238	1445.6	276.20	186.53

#1	.00004	-.00252	-.00392	.01134	.00083
#2	-.00045	-.00114	.00477	-.03515	-.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-442164/1-a Acquired: 11/2/2018 19:56:35 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00163	.00016	-.00078	.01702	.00026
Stddev	.00135	.00020	.00015	.01220	.00005
%RSD	83.001	125.69	18.706	71.699	17.242

#1	-.00067	.00002	-.00068	.02565	.00029
#2	-.00259	.00030	-.00088	.00839	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00077	.00251	-.00216	-.00476	-.05417
Stddev	.00020	.00222	.00040	.00277	.04292
%RSD	26.007	88.587	18.394	58.281	79.230

#1	-.00063	.00408	-.00188	-.00280	-.08451
#2	-.00092	.00094	-.00244	-.00672	-.02382

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	-.00005	.00087	.00206	-.00064
Stddev	.00049	.00006	.00033	.00015	.00044
%RSD	181.14	121.59	37.834	7.0667	67.684

#1	.00061	-.00001	.00064	.00196	-.00095
#2	-.00008	-.00009	.00110	.00216	-.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-442164/1-a Acquired: 11/2/2018 19:56:35 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00184**
 Stddev .00020
 %RSD 10.704

#1 **.00198**
 #2 **.00170**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3173.2	3145.5	24855.	2993.6
Stddev	1.7	2.9	8.	9.5
%RSD	.05442	.09086	.03411	.31705

#1	3172.0	3143.5	24861.	2986.9
#2	3174.5	3147.6	24849.	3000.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.64%	98.356%	98.890%	99.246%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 20:00:20 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56163	25.506	.52556	.50395	.51115
Stddev	.00076	.052	.00243	.00092	.00033
%RSD	.13600	.20415	.46258	.18170	.06445

#1	.56109	25.542	.52728	.50460	.51092
#2	.56217	25.469	.52384	.50331	.51139

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50654	26.535	.52655	.0040	.50466
Stddev	.00070	.017	.00029	.0474	.00016
%RSD	.13777	.06587	.05442	1196.	.03146

#1	.50704	26.523	.52675	.0374	.50477
#2	.50605	26.548	.52635	-.0295	.50454

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51086	.52769	26.309	24.893	.49723
Stddev	.00202	.00212	.011	.023	.00022
%RSD	.39629	.40105	.04292	.09349	.04406

#1	.50943	.52919	26.301	24.910	.49739
#2	.51230	.52619	26.317	24.877	.49708

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 20:00:20 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.034	.53341	.50031	24.952	.50126
Stddev	.029	.00002	.00058	.065	.00050
%RSD	.11130	.00321	.11662	.26223	.10045

#1	26.014	.53340	.50072	24.998	.50091
#2	26.055	.53342	.49990	24.906	.50162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50806	26.930	.51709	.51704	26.037
Stddev	.00274	.014	.00296	.00288	.114
%RSD	.53965	.05025	.57323	.55697	.43717

#1	.50612	26.940	.51499	.51500	25.957
#2	.51000	26.921	.51919	.51908	26.118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53066	.52545	.52239	.48808	.50638
Stddev	.00060	.00004	.00129	.00138	.00274
%RSD	.11307	.00740	.24618	.28271	.54040

#1	.53024	.52542	.52148	.48710	.50444
#2	.53109	.52547	.52330	.48905	.50831

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 20:00:20 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51896**
 Stddev .00211
 %RSD .40680

#1 **.51747**
 #2 **.52046**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3164.2	3114.5	24750.	2951.0
Stddev	1.9	1.6	7.	4.1
%RSD	.05881	.05092	.02635	.14022
#1	3165.5	3113.4	24755.	2948.1
#2	3162.9	3115.6	24746.	2953.9

Sample Name: ccb-4975309 Acquired: 11/2/2018 20:03:47 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00143	-.03523	.00015	.00062	.00003
Stddev	.00094	.01389	.00052	.00014	.00004
%RSD	65.543	39.418	347.13	23.222	130.77

#1	-.00077	-.02541	-.00022	.00073	.00006
#2	-.00210	-.04505	.00051	.00052	.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.00373	.00010	-.0099	.00000
Stddev	.00009	.00357	.00003	.0917	.00017
%RSD	202.26	95.820	34.061	922.6	115780.

#1	.00010	-.00120	.00012	.0549	-.00012
#2	-.00002	-.00625	.00007	-.0747	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.00138	.00026	.02629	-.00114
Stddev	.00042	.00019	.00000	.03088	.00182
%RSD	175.14	13.512	.44712	117.48	159.80

#1	-.00006	-.00124	.00027	.00445	.00015
#2	.00054	-.00151	.00026	.04812	-.00243

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 20:03:47 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.00018	.00078	-.01659	.00031
Stddev	.00280	.00002	.00015	.00168	.00002
%RSD	1986.0	13.033	19.375	10.101	7.8758

#1	-.00212	.00016	.00067	-.01541	.00029
#2	.00184	.00019	.00089	-.01778	.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	.00058	-.00360	-.00465	-.04872
Stddev	.00086	.00048	.00025	.00240	.01670
%RSD	117.13	82.138	6.9340	51.685	34.280

#1	-.00135	.00092	-.00342	-.00295	-.06053
#2	-.00013	.00024	-.00377	-.00634	-.03691

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00009	.00038	-.00069	-.00098
Stddev	.00025	.00011	.00011	.00021	.00060
%RSD	81.608	119.34	29.814	30.470	60.884

#1	.00048	-.00017	.00030	-.00054	-.00141
#2	.00013	-.00001	.00046	-.00084	-.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 20:03:47 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg .00001
 Stddev .00048
 %RSD 5390.1

#1 .00035
 #2 -.00033

Check ? Chk Pass
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3146.2	3108.2	24567.	2938.5
Stddev	4.1	2.2	69.	15.4
%RSD	.12989	.07099	.28197	.52523
#1	3143.3	3106.6	24518.	2927.6
#2	3149.1	3109.8	24616.	2949.5

Sample Name: ccvl-4970377 Acquired: 11/2/2018 20:07:33 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00506	.20132	.01616	.01985	.00204
Stddev	.00008	.01286	.00050	.00043	.00002
%RSD	1.5330	6.3862	3.0955	2.1532	1.2209

#1	.00512	.21041	.01581	.01955	.00206
#2	.00501	.19223	.01652	.02015	.00202

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00237	.53733	.00211	.0161	.00431
Stddev	.00002	.00090	.00011	.0232	.00002
%RSD	.82100	.16681	4.9906	143.9	.38612

#1	.00239	.53669	.00218	-.0003	.00429
#2	.00236	.53796	.00203	.0325	.00432

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00415	.00798	.05041	.48681	.02849
Stddev	.00065	.00025	.00175	.01838	.00059
%RSD	15.668	3.0736	3.4685	3.7759	2.0551

#1	.00369	.00780	.05164	.47381	.02807
#2	.00461	.00815	.04917	.49981	.02890

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 20:07:33 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20430	.00299	.00919	.95777	.01041
Stddev	.00301	.00001	.00006	.00876	.00007
%RSD	1.4743	.29162	.66777	.91506	.64180

#1	.20643	.00300	.00914	.95157	.01037
#2	.20217	.00299	.00923	.96396	.01046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01010	.20507	.01800	.02130	.49805
Stddev	.00141	.00243	.00020	.00545	.00400
%RSD	13.986	1.1837	1.1153	25.591	.80411

#1	.00910	.20335	.01814	.01745	.49521
#2	.01109	.20679	.01786	.02516	.50088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01018	.00508	.00582	.02052	.00411
Stddev	.00063	.00002	.00065	.00048	.00030
%RSD	6.1803	.38778	11.208	2.3290	7.2680

#1	.01063	.00510	.00536	.02019	.00432
#2	.00974	.00507	.00629	.02086	.00390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 20:07:33 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg .01117
Stddev .00024
%RSD 2.1039

#1 .01100
#2 .01134

Check ? Chk Pass
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3169.3	3131.1	24949.	2969.6
Stddev	7.1	13.5	149.	15.8
%RSD	.22459	.43001	.59740	.53240
#1	3174.3	3140.6	24844.	2958.4
#2	3164.3	3121.6	25055.	2980.8

Sample Name: lcs 480-442164/2-a Acquired: 11/2/2018 20:11:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05073	10.126	.21094	.19886	.19779
Stddev	.00027	.083	.00224	.00023	.00033
%RSD	.53328	.81641	1.0609	.11509	.16758

#1	.05092	10.185	.21252	.19870	.19755
#2	.05054	10.068	.20936	.19903	.19802

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20514	10.474	.21072	.0090	.19580
Stddev	.00012	.002	.00031	.0451	.00048
%RSD	.05908	.01533	.14633	502.5	.24615

#1	.20506	10.475	.21093	.0409	.19614
#2	.20523	10.472	.21050	-.0229	.19546

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20276	.19886	10.458	9.7927	.19254
Stddev	.00168	.00003	.011	.0527	.00017
%RSD	.82731	.01507	.10460	.53820	.08908

#1	.20395	.19883	10.466	9.8300	.19266
#2	.20158	.19888	10.450	9.7555	.19242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-442164/2-a Acquired: 11/2/2018 20:11:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.099	.20575	.19575	9.6279	.20270
Stddev	.052	.00149	.00056	.0337	.00039
%RSD	.51868	.72217	.28615	.35041	.19431

#1	10.136	.20680	.19615	9.6518	.20298
#2	10.062	.20470	.19536	9.6040	.20242

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19775	10.328	.20162	.19449	10.244
Stddev	.00072	.021	.00082	.00095	.082
%RSD	.36450	.20676	.40615	.48873	.80362

#1	.19826	10.343	.20104	.19381	10.186
#2	.19724	10.313	.20219	.19516	10.302

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20414	.20712	.20588	.19122	.20061
Stddev	.00071	.00006	.00061	.00054	.00053
%RSD	.34548	.03009	.29747	.28413	.26525

#1	.20464	.20708	.20631	.19160	.20099
#2	.20364	.20717	.20545	.19083	.20023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-442164/2-a Acquired: 11/2/2018 20:11:15 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21334**
 Stddev .00047
 %RSD .22148

#1 **.21368**
 #2 **.21301**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3184.0	3113.3	24916.	2996.8
Stddev	1.8	.8	43.	8.0
%RSD	.05596	.02533	.17182	.26847

#1	3182.7	3113.9	24885.	2991.1
#2	3185.3	3112.8	24946.	3002.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.99%	97.349%	99.131%	99.352%
Range				

Sample Name: 480-144121-c-1-b Acquired: 11/2/2018 20:14:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00044	.17841	.04957	.01794	.07178
Stddev	.00027	.02210	.00051	.00003	.00027
%RSD	60.567	12.389	1.0343	.17633	.37467

#1	-.00063	.16278	.04920	.01792	.07197
#2	-.00025	.19404	.04993	.01796	.07159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	28.320	.00013	-.0293	.01925
Stddev	.00008	.041	.00006	.0416	.00005
%RSD	72.524	.14504	42.175	142.0	.27220

#1	.00017	28.291	.00017	.0001	.01929
#2	.00005	28.349	.00009	-.0587	.01922

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00072	-.00019	19.508	4.0905	.00108
Stddev	.00057	.00014	.018	.0446	.00123
%RSD	79.145	75.869	.09421	1.0899	114.84

#1	.00032	-.00009	19.521	4.1220	.00020
#2	.00113	-.00028	19.495	4.0590	.00195

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-1-b Acquired: 11/2/2018 20:14:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.1099	2.3743	-.00055	172.74	.00804
Stddev	.0220	.0081	.00036	.52	.00040
%RSD	.53504	.33961	65.960	.30002	4.9264

#1	4.1254	2.3800	-.00080	172.37	.00833
#2	4.0944	2.3686	-.00029	173.10	.00776

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00234	6.1306	-.00267	-.00071	9.1127
Stddev	.00028	.0120	.00064	.00002	.0057
%RSD	11.777	.19641	23.968	2.5349	.06291

#1	.00253	6.1391	-.00312	-.00072	9.1086
#2	.00214	6.1221	-.00221	-.00069	9.1167

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	.28278	.00428	.00392	-.00086
Stddev	.00046	.00027	.00061	.00051	.00020
%RSD	115.12	.09681	14.233	13.017	23.223

#1	.00007	.28297	.00385	.00356	-.00072
#2	.00072	.28258	.00471	.00428	-.00100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-1-b Acquired: 11/2/2018 20:14:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00696**
 Stddev .00020
 %RSD 2.9078

#1 **.00682**
 #2 **.00710**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3136.2	3099.7	25094.	2965.3
Stddev	3.1	1.4	9.	14.8
%RSD	.09764	.04514	.03778	.49778

#1	3138.4	3098.8	25088.	2975.7
#2	3134.1	3100.7	25101.	2954.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.44%	96.924%	99.843%	98.308%
Range				

Sample Name: 480-144121-c-2-b Acquired: 11/2/2018 20:18:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	-.02834	.00061	.01752	.09524
Stddev	.00007	.00627	.00118	.00014	.00002
%RSD	17.948	22.109	193.65	.77509	.02484

#1	-.00043	-.02391	-.00022	.01743	.09526
#2	-.00033	-.03278	.00144	.01762	.09523

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	96.660	.00137	.0267	.00327
Stddev	.00001	.397	.00008	.0105	.00009
%RSD	7.6509	.41057	5.4793	39.28	2.6883

#1	.00014	96.379	.00132	.0193	.00320
#2	.00016	96.940	.00142	.0341	.00333

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00095	.00075	.03102	6.3126	.02573
Stddev	.00015	.00015	.00325	.0195	.00234
%RSD	15.687	20.150	10.466	.30820	9.0850

#1	.00106	.00064	.03331	6.2989	.02408
#2	.00085	.00085	.02872	6.3264	.02738

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-b Acquired: 11/2/2018 20:18:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.219	2.7835	-.00055	203.52	.00573
Stddev	.002	.0057	.00012	.27	.00072
%RSD	.01120	.20609	21.332	.13069	12.492

#1	17.217	2.7876	-.00064	203.33	.00624
#2	17.220	2.7795	-.00047	203.71	.00522

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00146	6.6370	-.00302	-.00625	10.246
Stddev	.00068	.0010	.00043	.00069	.035
%RSD	46.553	.01450	14.248	11.069	.33982

#1	.00194	6.6363	-.00333	-.00674	10.271
#2	.00098	6.6377	-.00272	-.00576	10.222

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	.63601	.00092	.00372	-.00055
Stddev	.00029	.00124	.00017	.00006	.00073
%RSD	524.88	.19492	18.570	1.5084	131.59

#1	-.00015	.63513	.00080	.00375	-.00004
#2	.00026	.63689	.00104	.00368	-.00107

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-b Acquired: 11/2/2018 20:18:25 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01529**
 Stddev .00015
 %RSD .98830

#1 **.01518**
 #2 **.01539**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3087.7	3062.7	25040.	2980.1
Stddev	4.7	.1	81.	4.0
%RSD	.15343	.00207	.32303	.13476

#1	3084.4	3062.6	24983.	2977.3
#2	3091.1	3062.7	25097.	2982.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.876%	95.765%	99.627%	98.799%
Range				

Sample Name: 480-144121-c-2-bSD@5 Acquired: 11/2/2018 20:22:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	-.05441	.00133	.00282	.01884
Stddev	.00086	.01054	.00187	.00025	.00005
%RSD	2160.2	19.379	140.32	9.0268	.25905

#1	.00065	-.06187	.00001	.00300	.01887
#2	-.00057	-.04696	.00265	.00264	.01880

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	19.635	.00018	.0342	.00080
Stddev	.00003	.102	.00011	.0208	.00006
%RSD	40.767	.51789	60.159	60.74	7.6206

#1	.00005	19.563	.00026	.0195	.00084
#2	.00010	19.707	.00011	.0488	.00076

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	-.00106	.00742	1.2154	.00393
Stddev	.00026	.00065	.00556	.0155	.00192
%RSD	168.99	61.145	74.964	1.2726	48.797

#1	-.00003	-.00060	.00349	1.2045	.00528
#2	.00034	-.00151	.01135	1.2264	.00257

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-bSD@5 Acquired: 11/2/2018 20:22:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.4317	.56463	-.00098	39.964	.00098
Stddev	.0116	.00135	.00002	.016	.00048
%RSD	.33658	.23905	2.2062	.04038	48.890

#1	3.4399	.56558	-.00100	39.953	.00131
#2	3.4236	.56367	-.00097	39.976	.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	1.2955	-.00299	-.00480	2.0477
Stddev	.00040	.0023	.00030	.00170	.0213
%RSD	228.69	.17770	9.9511	35.393	1.0379

#1	.00046	1.2971	-.00278	-.00360	2.0327
#2	-.00011	1.2938	-.00320	-.00600	2.0628

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.12858	.00049	.00286	-.00055
Stddev	.00011	.00001	.00038	.00061	.00041
%RSD	32.407	.00772	78.383	21.446	75.534

#1	.00040	.12858	.00076	.00329	-.00026
#2	.00025	.12857	.00022	.00242	-.00084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-bSD@5 Acquired: 11/2/2018 20:22:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00384**
 Stddev .00011
 %RSD 2.9482

#1 **.00376**
 #2 **.00392**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3200.3	3121.0	24974.	2983.8
Stddev	3.9	.4	33.	10.2
%RSD	.12097	.01124	.13279	.34321

#1	3197.6	3120.8	24950.	2991.0
#2	3203.1	3121.3	24997.	2976.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.52%	97.589%	99.363%	98.920%
Range				

Sample Name: 480-144121-c-2-bPDS Acquired: 11/2/2018 20:25:43 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05324	10.365	.21479	.22426	.29899
Stddev	.00064	.014	.00037	.00065	.00008
%RSD	1.2048	.13143	.17252	.29195	.02770

#1	.05369	10.355	.21453	.22380	.29905
#2	.05278	10.374	.21505	.22472	.29894

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21133	104.23	.21939	.0366	.20279
Stddev	.00004	.00	.00048	.0379	.00049
%RSD	.01851	.00171	.21788	103.6	.24270

#1	.21135	104.23	.21905	.0633	.20244
#2	.21130	104.23	.21973	.0098	.20314

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20305	.21352	10.469	16.571	.23060
Stddev	.00009	.00010	.032	.029	.00024
%RSD	.04317	.04818	.30512	.17563	.10451

#1	.20311	.21360	10.492	16.591	.23077
#2	.20298	.21345	10.447	16.550	.23043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-bPDS Acquired: 11/2/2018 20:25:43 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	27.215	2.9114	.19934	207.79	.20983
Stddev	.026	.0029	.00027	.38	.00015
%RSD	.09650	.10104	.13657	.18434	.07106

#1	27.234	2.9135	.19953	207.52	.20993
#2	27.196	2.9093	.19914	208.06	.20972

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20564	17.377	.19477	.20367	20.462
Stddev	.00131	.002	.00011	.00276	.028
%RSD	.63827	.01235	.05552	1.3533	.13869

#1	.20471	17.376	.19484	.20562	20.482
#2	.20656	17.379	.19469	.20172	20.442

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21408	.82112	.20836	.20043	.20195
Stddev	.00178	.00087	.00119	.00164	.00057
%RSD	.82935	.10570	.57196	.81998	.28326

#1	.21282	.82050	.20751	.20159	.20236
#2	.21533	.82173	.20920	.19927	.20155

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-bPDS Acquired: 11/2/2018 20:25:43 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22422**
 Stddev .00116
 %RSD .51636

#1 **.22340**
 #2 **.22504**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3068.1	3056.6	24894.	2989.0
Stddev	7.2	4.3	37.	18.1
%RSD	.23554	.13983	.14797	.60497

#1	3073.2	3059.6	24920.	2976.2
#2	3063.0	3053.5	24868.	3001.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.241%	95.574%	99.045%	99.093%
Range				

Sample Name: 480-144121-c-2-c ms Acquired: 11/2/2018 20:29:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05347	10.359	.21471	.22343	.30391
Stddev	.00007	.051	.00110	.00014	.00040
%RSD	.13952	.49282	.51220	.06227	.13235

#1	.05352	10.323	.21393	.22353	.30419
#2	.05341	10.396	.21549	.22333	.30362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20927	110.92	.21519	.0136	.19967
Stddev	.00022	.37	.00011	.0203	.00029
%RSD	.10362	.33744	.05055	149.6	.14754

#1	.20943	111.18	.21527	-.0008	.19946
#2	.20912	110.65	.21511	.0279	.19988

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19826	.20970	10.285	17.107	.23592
Stddev	.00009	.00026	.033	.057	.00167
%RSD	.04429	.12619	.32056	.33235	.70902

#1	.19832	.20952	10.308	17.147	.23710
#2	.19820	.20989	10.261	17.067	.23474

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-c ms Acquired: 11/2/2018 20:29:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.001	3.0763	.19663	223.04	.20701
Stddev	.049	.0063	.00037	.48	.00003
%RSD	.17529	.20405	.18784	.21315	.01633

#1	28.036	3.0808	.19689	223.37	.20699
#2	27.967	3.0719	.19637	222.70	.20703

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20255	17.611	.20319	.20523	21.077
Stddev	.00087	.004	.00094	.00232	.069
%RSD	.42960	.02107	.46255	1.1293	.32545

#1	.20317	17.613	.20253	.20686	21.126
#2	.20194	17.608	.20385	.20359	21.029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20678	.86692	.20513	.19817	.19607
Stddev	.00040	.00103	.00014	.00143	.00002
%RSD	.19583	.11921	.06754	.72108	.01112

#1	.20707	.86765	.20503	.19716	.19605
#2	.20650	.86619	.20523	.19918	.19608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-c ms Acquired: 11/2/2018 20:29:13 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21943**
 Stddev .00149
 %RSD .67986

#1 **.22049**
 #2 **.21838**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3052.1	3047.3	24945.	2943.8
Stddev	1.5	.5	52.	32.7
%RSD	.04985	.01599	.20832	1.1095

#1	3053.2	3046.9	24908.	2920.7
#2	3051.0	3047.6	24982.	2966.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.723%	95.283%	99.247%	97.596%
Range				

Sample Name: 480-144121-c-2-d msd Acquired: 11/2/2018 20:32:43 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05013	9.9473	.21222	.21662	.29696
Stddev	.00054	.0110	.00335	.00045	.00050
%RSD	1.0871	.11089	1.5772	.20852	.16938

#1	.05052	9.9395	.21459	.21694	.29732
#2	.04974	9.9551	.20986	.21630	.29661

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20579	109.36	.21319	-.0090	.19705
Stddev	.00098	.05	.00034	.0260	.00021
%RSD	.47527	.04573	.15956	290.1	.10679

#1	.20648	109.40	.21295	.0094	.19720
#2	.20509	109.33	.21343	-.0274	.19690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19696	.20679	10.172	16.717	.22812
Stddev	.00000	.00144	.038	.045	.00030
%RSD	.00201	.69517	.36912	.27088	.13065

#1	.19696	.20781	10.198	16.685	.22833
#2	.19696	.20577	10.145	16.749	.22790

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-d msd Acquired: 11/2/2018 20:32:43 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	27.671	3.0467	.19407	219.85	.20390
Stddev	.052	.0065	.00032	.05	.00013
%RSD	.18616	.21409	.16695	.02189	.06525

#1	27.708	3.0513	.19430	219.88	.20381
#2	27.635	3.0421	.19384	219.81	.20400

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19837	17.197	.20134	.20296	20.561
Stddev	.00071	.008	.00106	.00154	.048
%RSD	.35643	.04764	.52861	.76085	.23572

#1	.19787	17.203	.20209	.20187	20.527
#2	.19887	17.191	.20059	.20405	20.596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.19960	.85170	.20330	.19521	.19527
Stddev	.00080	.00213	.00175	.00127	.00005
%RSD	.39970	.25029	.86269	.64952	.02719

#1	.20016	.85320	.20454	.19610	.19523
#2	.19904	.85019	.20206	.19431	.19530

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-2-d msd Acquired: 11/2/2018 20:32:43 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21669**
 Stddev .00049
 %RSD .22691

#1 .21634
 #2 .21704

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3065.0	3052.1	25066.	2960.8
Stddev	1.6	.5	113.	11.3
%RSD	.05099	.01526	.45150	.38280

#1	3066.1	3052.4	24986.	2968.8
#2	3063.9	3051.8	25146.	2952.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.139%	95.434%	99.730%	98.158%
Range				

Sample Name: 480-144121-c-3-b Acquired: 11/2/2018 20:36:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	.01623	.19689	.01426	.00914
Stddev	.00026	.02154	.00087	.00000	.00002
%RSD	25.940	132.74	.44378	.00006	.17210

#1	-.00081	.00100	.19627	.01426	.00913
#2	-.00118	.03146	.19751	.01426	.00915

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	13.217	.00017	-.0703	.00055
Stddev	.00003	.066	.00010	.0017	.00014
%RSD	20.606	.50025	59.338	2.444	25.705

#1	.00019	13.170	.00024	-.0715	.00065
#2	.00014	13.264	.00010	-.0691	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00097	-.00127	20.871	6.8438	-.00142
Stddev	.00083	.00020	.157	.0364	.00021
%RSD	85.876	15.728	.75362	.53190	14.859

#1	.00038	-.00141	20.759	6.8180	-.00157
#2	.00156	-.00113	20.982	6.8695	-.00128

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-3-b Acquired: 11/2/2018 20:36:13 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.1541	1.3283	.00332	2.7676	.00064
Stddev	.0006	.0032	.00029	.0127	.00020
%RSD	.05108	.23800	8.5939	.45757	31.795

#1	1.1545	1.3305	.00312	2.7587	.00079
#2	1.1536	1.3261	.00352	2.7766	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00150	1.1329	-.00160	-.00360	6.8191
Stddev	.00076	.0020	.00020	.00073	.0709
%RSD	50.797	.17570	12.630	20.155	1.0399

#1	.00096	1.1343	-.00146	-.00309	6.7689
#2	.00204	1.1315	-.00175	-.00411	6.8692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.06087	.00219	.00364	-.00039
Stddev	.00031	.00054	.00020	.00015	.00022
%RSD	800.56	.88067	9.1679	4.1789	56.907

#1	.00026	.06049	.00233	.00353	-.00023
#2	-.00018	.06125	.00205	.00375	-.00054

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-3-b Acquired: 11/2/2018 20:36:13 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00995**
 Stddev .00057
 %RSD 5.7335

#1 **.00955**
 #2 **.01035**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3203.3	3130.4	24898.	3020.8
Stddev	.4	5.1	1.	6.3
%RSD	.01333	.16340	.00510	.20774

#1	3203.6	3126.8	24899.	3025.3
#2	3203.0	3134.0	24897.	3016.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.61%	97.882%	99.061%	100.15%
Range				

Sample Name: 480-144121-c-4-b Acquired: 11/2/2018 20:39:53 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	.13534	.00093	.00389	.00117
Stddev	.00062	.02989	.00031	.00006	.00002
%RSD	139.49	22.088	33.795	1.4156	1.4749

#1	-.00001	.15647	.00071	.00393	.00115
#2	-.00088	.11420	.00115	.00385	.00118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	11.759	.00008	.0143	.00016
Stddev	.00011	.030	.00002	.0544	.00005
%RSD	30.402	.25694	30.797	380.4	30.728

#1	.00029	11.780	.00009	.0528	.00019
#2	.00045	11.738	.00006	-.0242	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00267	.00774	.75450	.00292
Stddev	.00026	.00024	.00417	.05604	.00016
%RSD	987.20	8.8179	53.816	7.4277	5.5008

#1	-.00021	-.00284	.01069	.79413	.00303
#2	.00016	-.00251	.00480	.71488	.00280

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-4-b Acquired: 11/2/2018 20:39:53 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.74530	.04221	.00006	4.1090	.00083
Stddev	.00683	.00009	.00011	.0122	.00030
%RSD	.91610	.22299	192.45	.29626	35.825

#1	.74047	.04214	-.00002	4.1176	.00104
#2	.75013	.04228	.00014	4.1004	.00062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	2.6855	-.00146	-.00378	6.3958
Stddev	.00051	.0059	.00028	.00059	.0110
%RSD	167.18	.22060	19.294	15.628	.17259

#1	-.00006	2.6814	-.00165	-.00420	6.3880
#2	.00067	2.6897	-.00126	-.00336	6.4036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.03335	.00120	.00296	-.00042
Stddev	.00060	.00023	.00021	.00042	.00037
%RSD	900.79	.67767	17.518	14.145	88.587

#1	-.00049	.03319	.00105	.00326	-.00069
#2	.00036	.03351	.00134	.00267	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-4-b Acquired: 11/2/2018 20:39:53 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00337**
 Stddev .00052
 %RSD 15.564

#1 **.00374**
 #2 **.00300**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3212.7	3134.9	24987.	3008.2
Stddev	1.3	2.0	38.	18.2
%RSD	.04147	.06474	.15210	.60518

#1	3213.7	3133.5	25014.	2995.3
#2	3211.8	3136.3	24961.	3021.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.92%	98.023%	99.417%	99.729%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 20:43:36 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56055	25.626	.52506	.50446	.51196
Stddev	.00429	.125	.00273	.00094	.00217
%RSD	.76534	.48757	.51944	.18560	.42374

#1	.55752	25.538	.52699	.50512	.51042
#2	.56359	25.714	.52313	.50380	.51349

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50721	26.562	.52749	-.0682	.50449
Stddev	.00166	.005	.00060	.0052	.00038
%RSD	.32705	.01884	.11296	7.621	.07621

#1	.50604	26.559	.52791	-.0719	.50476
#2	.50838	26.566	.52707	-.0646	.50422

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51140	.52761	26.360	25.041	.49992
Stddev	.00163	.00302	.038	.027	.00391
%RSD	.31911	.57206	.14318	.10645	.78284

#1	.51025	.52548	26.333	25.022	.49715
#2	.51256	.52975	26.386	25.060	.50269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 20:43:36 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.034	.53263	.50199	25.084	.50153
Stddev	.152	.00264	.00275	.081	.00007
%RSD	.58513	.49533	.54716	.32465	.01409

#1	25.926	.53076	.50393	25.026	.50148
#2	26.142	.53449	.50005	25.142	.50158

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50916	26.956	.51829	.51802	26.172
Stddev	.00097	.050	.00015	.00525	.124
%RSD	.18963	.18472	.02960	1.0141	.47324

#1	.50984	26.991	.51840	.52174	26.084
#2	.50848	26.921	.51818	.51431	26.259

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53003	.52790	.52393	.48756	.50693
Stddev	.00147	.00016	.00137	.00194	.00143
%RSD	.27647	.03041	.26084	.39767	.28173

#1	.53107	.52778	.52297	.48893	.50592
#2	.52900	.52801	.52490	.48619	.50794

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 20:43:36 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.51834**
 Stddev .00051
 %RSD .09809

#1 **.51798**
 #2 **.51870**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3155.5	3102.7	24742.	2934.1
Stddev	5.1	6.3	84.	9.8
%RSD	.16045	.20336	.33757	.33557
#1	3151.9	3098.3	24801.	2941.0
#2	3159.1	3107.2	24683.	2927.1

Sample Name: ccb-4975309 Acquired: 11/2/2018 20:47:03 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	-.05180	.00120	-.00041	.00002
Stddev	.00033	.02352	.00009	.00078	.00003
%RSD	173.19	45.411	7.5571	188.32	157.85

#1	-.00042	-.03517	.00114	.00014	.00004
#2	.00004	-.06844	.00127	-.00096	-.00000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00140	-.00004	-.0121	-.00001
Stddev	.00004	.00284	.00000	.0201	.00002
%RSD	31.571	203.09	2.9740	165.9	124.63

#1	.00010	-.00340	-.00004	-.0264	-.00000
#2	.00015	.00061	-.00004	.0021	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	-.00147	.00110	-.01936	-.00083
Stddev	.00009	.00093	.00330	.01215	.00042
%RSD	22.645	63.668	299.39	62.745	50.185

#1	.00033	-.00213	.00344	-.02795	-.00112
#2	.00045	-.00081	-.00123	-.01077	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 20:47:03 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00307	-.00003	.00059	-.00880	.00037
Stddev	.00188	.00003	.00005	.00536	.00035
%RSD	61.333	74.261	7.9650	60.905	95.584

#1	.00440	-.00005	.00056	-.01259	.00012
#2	.00174	-.00002	.00063	-.00501	.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	-.00225	-.00242	-.00283	-.04668
Stddev	.00138	.00026	.00050	.00075	.03558
%RSD	627.32	11.472	20.679	26.619	76.211

#1	.00119	-.00207	-.00206	-.00336	-.07184
#2	-.00075	-.00243	-.00277	-.00230	-.02153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00024	-.00001	.00007	.00045	-.00112
Stddev	.00038	.00004	.00003	.00015	.00010
%RSD	158.21	637.46	48.225	33.217	8.6367

#1	-.00051	-.00003	.00010	.00034	-.00105
#2	.00003	.00002	.00005	.00055	-.00119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 20:47:03 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00004**
 Stddev .00033
 %RSD 769.02

#1 .00019
 #2 **-.00028**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3156.5	3110.0	24665.	2933.6
Stddev	.8	.0	61.	24.0
%RSD	.02555	.00092	.24576	.81898
#1	3157.1	3110.0	24708.	2950.6
#2	3156.0	3110.0	24622.	2916.6

Sample Name: ccvl-4970377 Acquired: 11/2/2018 20:50:47 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00528	.15295	.01532	.01870	.00207
Stddev	.00023	.00089	.00136	.00022	.00003
%RSD	4.3053	.57933	8.8828	1.1623	1.3394

#1	.00512	.15232	.01628	.01886	.00209
#2	.00544	.15357	.01435	.01855	.00205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00213	.53992	.00212	-.0471	.00419
Stddev	.00006	.00138	.00002	.0121	.00006
%RSD	2.6667	.25577	1.0547	25.64	1.4282

#1	.00209	.53894	.00213	-.0557	.00423
#2	.00217	.54089	.00210	-.0386	.00415

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00398	.00785	.05424	.47651	.02819
Stddev	.00053	.00034	.00042	.01710	.00084
%RSD	13.243	4.3814	.77895	3.5883	2.9689

#1	.00435	.00810	.05394	.48860	.02760
#2	.00360	.00761	.05454	.46442	.02879

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 20:50:47 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20506	.00308	.00912	.94650	.01115
Stddev	.00019	.00004	.00018	.00766	.00001
%RSD	.09241	1.1372	1.9612	.80893	.12482

#1	.20519	.00311	.00925	.94109	.01114
#2	.20492	.00306	.00899	.95191	.01116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00941	.20566	.01865	.02091	.48847
Stddev	.00007	.00077	.00000	.00080	.00910
%RSD	.69281	.37281	.00133	3.8290	1.8638

#1	.00937	.20511	.01865	.02034	.48203
#2	.00946	.20620	.01865	.02148	.49491

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01021	.00508	.00462	.02057	.00436
Stddev	.00003	.00020	.00032	.00117	.00070
%RSD	.29884	4.0359	6.8214	5.6847	16.013

#1	.01018	.00522	.00484	.02140	.00485
#2	.01023	.00493	.00440	.01974	.00387

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 20:50:47 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01155**
 Stddev .00013
 %RSD 1.0900

#1 **.01146**
 #2 **.01163**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3188.4	3149.6	24943.	2961.8
Stddev	2.6	1.2	15.	13.9
%RSD	.08032	.03843	.05929	.46880
#1	3186.6	3148.7	24953.	2971.6
#2	3190.2	3150.5	24933.	2952.0

Sample Name: 480-144121-c-5-b Acquired: 11/2/2018 20:54:29 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.06295	.00318	.00724	.00649
Stddev	.00005	.00501	.00125	.00010	.00000
%RSD	78.334	7.9609	39.472	1.3458	.01848

#1	.00003	.06649	.00229	.00717	.00649
#2	.00010	.05940	.00406	.00731	.00649

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	1.4051	-.00006	.0152	.00206
Stddev	.00016	.0082	.00000	.0303	.00011
%RSD	114.27	.58406	.73059	198.8	5.5044

#1	.00025	1.4109	-.00006	.0366	.00198
#2	.00003	1.3993	-.00006	-.0062	.00214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.00057	.34527	1.9410	-.00073
Stddev	.00000	.00053	.01123	.0181	.00029
%RSD	1.0177	92.896	3.2536	.93424	39.125

#1	.00036	-.00094	.35322	1.9282	-.00093
#2	.00035	-.00020	.33733	1.9538	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-5-b Acquired: 11/2/2018 20:54:29 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.30186	.38685	-.00061	12.026	.00142
Stddev	.00443	.00056	.00046	.026	.00009
%RSD	1.4672	.14601	75.999	.21691	6.6430

#1	.30499	.38725	-.00094	12.044	.00136
#2	.29872	.38645	-.00028	12.007	.00149

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.99609	-.00165	-.00245	3.5462
Stddev	.00171	.00191	.00103	.00014	.0550
%RSD	302.50	.19167	62.410	5.7587	1.5503

#1	-.00065	.99474	-.00092	-.00235	3.5074
#2	.00178	.99744	-.00237	-.00255	3.5851

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	.01024	.00188	.00185	.00006
Stddev	.00004	.00009	.00006	.00104	.00033
%RSD	22.770	.92801	3.3402	56.333	507.41

#1	-.00019	.01017	.00193	.00111	.00030
#2	-.00014	.01030	.00184	.00259	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-5-b Acquired: 11/2/2018 20:54:29 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00620**
 Stddev .00012
 %RSD 1.8743

#1 **.00612**
 #2 **.00628**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3216.6	3141.8	25049.	3007.2
Stddev	3.9	7.7	19.	4.2
%RSD	.12068	.24453	.07479	.14093

#1	3219.4	3147.3	25062.	3010.2
#2	3213.9	3136.4	25035.	3004.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	104.05%	98.240%	99.660%	99.697%
Range				

Sample Name: 480-144121-c-6-b Acquired: 11/2/2018 20:58:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	.06725	.00074	.00321	.00414
Stddev	.00077	.01662	.00074	.00010	.00002
%RSD	118.04	24.717	99.732	3.2626	.38294

#1	-.00119	.05550	.00127	.00328	.00415
#2	-.00011	.07900	.00022	.00314	.00413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	6.4002	.00013	.0101	.00007
Stddev	.00008	.0271	.00012	.0239	.00012
%RSD	43.421	.42393	89.267	237.3	186.40

#1	.00024	6.4194	.00021	.0270	-.00002
#2	.00013	6.3810	.00005	-.0068	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	-.00146	.01418	.71293	.00055
Stddev	.00019	.00011	.00681	.03684	.00182
%RSD	37.799	7.3661	48.033	5.1673	330.46

#1	.00036	-.00139	.01900	.68688	.00183
#2	.00063	-.00154	.00936	.73898	-.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-6-b Acquired: 11/2/2018 20:58:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.72813	.11918	-.00076	23.357	.00020
Stddev	.00349	.00020	.00019	.010	.00017
%RSD	.47923	.16647	24.510	.04430	85.851

#1	.72567	.11932	-.00063	23.365	.00008
#2	.73060	.11904	-.00089	23.350	.00032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	2.0040	-.00272	-.00310	6.0126
Stddev	.00024	.0010	.00043	.00006	.0278
%RSD	91.646	.05044	15.779	2.0697	.46295

#1	-.00009	2.0033	-.00302	-.00305	5.9930
#2	-.00043	2.0047	-.00242	-.00314	6.0323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.04834	.00010	.00308	-.00101
Stddev	.00022	.00054	.00032	.00090	.00017
%RSD	130.20	1.1114	328.54	29.137	16.697

#1	.00001	.04872	.00033	.00372	-.00113
#2	.00033	.04796	-.00013	.00245	-.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-6-b Acquired: 11/2/2018 20:58:11 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01100**
 Stddev .00007
 %RSD .65306

#1 **.01094**
 #2 **.01105**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3222.8	3133.2	24960.	3002.3
Stddev	.2	1.8	33.	8.2
%RSD	.00476	.05612	.13173	.27274

#1	3222.9	3132.0	24984.	3008.1
#2	3222.7	3134.4	24937.	2996.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	104.25%	97.970%	99.309%	99.533%
Range				

Sample Name: 480-144121-c-7-b Acquired: 11/2/2018 21:01:52 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	-.00324	.00210	.01757	.09643
Stddev	.00029	.00388	.00121	.00045	.00049
%RSD	273.73	119.87	57.742	2.5664	.50818

#1	-.00031	-.00049	.00295	.01725	.09608
#2	.00010	-.00598	.00124	.01789	.09678

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	98.265	.00144	.0502	.00358
Stddev	.00011	.753	.00007	.0253	.00013
%RSD	172.69	.76615	5.0010	50.44	3.5976

#1	.00014	98.797	.00149	.0323	.00368
#2	-.00001	97.733	.00139	.0681	.00349

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00096	.00122	.06104	6.4220	.02699
Stddev	.00062	.00027	.00150	.0197	.00061
%RSD	64.915	21.884	2.4538	.30634	2.2526

#1	.00052	.00140	.05998	6.4359	.02656
#2	.00139	.00103	.06210	6.4081	.02742

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-7-b Acquired: 11/2/2018 21:01:52 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	17.450	2.8220	-0.00071	207.88	.00609
Stddev	.097	.0109	.00008	1.47	.00006
%RSD	.55611	.38685	10.671	.70735	.97451

#1	17.381	2.8143	-0.00066	208.92	.00605
#2	17.518	2.8297	-0.00076	206.84	.00613

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00158	6.7580	-0.00275	-.00518	10.402
Stddev	.00106	.0157	.00229	.00064	.028
%RSD	66.826	.23181	83.107	12.298	.26949

#1	.00233	6.7469	-0.00437	-.00563	10.422
#2	.00083	6.7691	-0.00113	-.00473	10.382

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	.64749	.00031	.00489	-.00089
Stddev	.00022	.00219	.00047	.00025	.00056
%RSD	828.26	.33836	153.91	5.1573	63.573

#1	-.00013	.64904	.00064	.00507	-.00049
#2	.00018	.64594	-.00003	.00471	-.00129

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144121-c-7-b Acquired: 11/2/2018 21:01:52 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01562**
 Stddev .00078
 %RSD 5.0060

#1 **.01618**
 #2 **.01507**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3087.9	3060.0	25078.	2956.4
Stddev	3.4	6.3	80.	32.5
%RSD	.10986	.20578	.31746	1.0994

#1	3090.3	3064.4	25134.	2933.5
#2	3085.5	3055.5	25021.	2979.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.880%	95.681%	99.776%	98.014%
Range				

Sample Name: 480-144265-c-1-a Acquired: 11/2/2018 21:05:30 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00112	-.03809	.00206	.23121	.07273
Stddev	.00024	.02730	.00057	.00001	.00000
%RSD	21.119	71.678	27.559	.00554	.00353

#1	-.00095	-.01879	.00166	.23122	.07273
#2	-.00128	-.05740	.00246	.23120	.07273

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	32.303	.00018	-.0126	.00053
Stddev	.00023	.198	.00006	.0443	.00001
%RSD	213.57	.61185	32.342	351.9	2.6991

#1	-.00005	32.164	.00022	.0187	.00054
#2	.00027	32.443	.00014	-.0439	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00108	.23190	47.048	.00099
Stddev	.00011	.00104	.00241	.168	.00183
%RSD	36.586	95.807	1.0378	.35749	184.31

#1	.00022	.00035	.23019	46.929	-.00030
#2	.00037	.00182	.23360	47.167	.00228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-1-a Acquired: 11/2/2018 21:05:30 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.974	.58772	-.00051	26.869	.00088
Stddev	.076	.00027	.00014	.043	.00024
%RSD	.50526	.04590	27.124	.16185	27.047

#1	14.920	.58753	-.00061	26.839	.00071
#2	15.027	.58792	-.00041	26.900	.00105

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00122	18.734	-.00221	-.00211	6.1958
Stddev	.00170	.004	.00092	.00009	.0093
%RSD	139.75	.02262	41.351	4.0562	.15053

#1	.00001	18.737	-.00286	-.00205	6.1892
#2	.00242	18.731	-.00157	-.00217	6.2024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.18292	.00032	.00355	-.00086
Stddev	.00000	.00051	.00043	.00072	.00047
%RSD	1.8900	.28119	134.25	20.188	54.918

#1	-.00020	.18256	.00002	.00304	-.00119
#2	-.00020	.18328	.00062	.00405	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-1-a Acquired: 11/2/2018 21:05:30 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00423**
 Stddev .00028
 %RSD 6.5476

#1 **.00443**
 #2 **.00404**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3189.8	3111.3	25097.	2983.0
Stddev	.6	2.3	21.	12.8
%RSD	.01830	.07355	.08415	.42743

#1	3190.2	3109.6	25112.	2992.0
#2	3189.4	3112.9	25083.	2974.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.18%	97.284%	99.855%	98.895%
Range				

Sample Name: 480-144265-c-2-a Acquired: 11/2/2018 21:09:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00139	.07157	.03869	.04347	.01994
Stddev	.00009	.03744	.00124	.00025	.00017
%RSD	6.5794	52.316	3.2067	.57100	.83344

#1	-.00133	.09805	.03781	.04364	.02006
#2	-.00146	.04510	.03956	.04329	.01982

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	22.575	-.00019	.0294	.01150
Stddev	.00009	.121	.00002	.0178	.00036
%RSD	145.56	.53773	11.194	60.31	3.1587

#1	.00012	22.660	-.00021	.0169	.01176
#2	-.00000	22.489	-.00018	.0420	.01125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00069	.00031	48.037	44.714	-.00013
Stddev	.00018	.00035	.267	.040	.00055
%RSD	25.360	112.22	.55567	.08880	422.81

#1	.00082	.00006	48.226	44.743	.00026
#2	.00057	.00056	47.848	44.686	-.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-2-a Acquired: 11/2/2018 21:09:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.980	1.5990	-.00118	44.259	.00157
Stddev	.043	.0043	.00016	.109	.00016
%RSD	.39331	.27162	13.226	.24731	10.283

#1	11.011	1.6021	-.00107	44.336	.00168
#2	10.950	1.5959	-.00129	44.181	.00146

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00155	7.0525	-.00223	-.00239	6.4932
Stddev	.00032	.0141	.00038	.00161	.0358
%RSD	20.974	.19988	17.290	67.347	.55123

#1	.00132	7.0624	-.00195	-.00353	6.5185
#2	.00178	7.0425	-.00250	-.00125	6.4679

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.08941	.00520	.00236	.00181
Stddev	.00094	.00013	.00181	.00173	.00038
%RSD	116.76	.14387	34.710	73.090	21.104

#1	.00014	.08932	.00392	.00358	.00208
#2	.00147	.08950	.00648	.00114	.00154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-2-a Acquired: 11/2/2018 21:09:09 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00368**
 Stddev .00100
 %RSD 27.073

#1 **.00439**
 #2 **.00298**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3184.8	3124.0	25354.	2998.5
Stddev	1.6	2.5	14.	26.6
%RSD	.05117	.07856	.05440	.88792

#1	3186.0	3122.2	25344.	2979.6
#2	3183.7	3125.7	25363.	3017.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.02%	97.681%	100.87%	99.408%
Range				

Sample Name: 480-144265-c-3-a Acquired: 11/2/2018 21:12:48 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	-.03775	.00247	.23056	.07286
Stddev	.00080	.01728	.00250	.00060	.00022
%RSD	152.58	45.764	101.27	.26148	.29694

#1	-.00108	-.04997	.00070	.23099	.07302
#2	.00004	-.02553	.00424	.23013	.07271

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	32.256	.00024	-.0185	.00056
Stddev	.00000	.053	.00011	.0301	.00005
%RSD	3.7742	.16461	44.955	162.6	8.8491

#1	.00008	32.293	.00016	-.0398	.00053
#2	.00007	32.218	.00031	.0028	.00060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00005	.22958	47.025	-.00022
Stddev	.00052	.00083	.00172	.198	.00268
%RSD	218.70	1735.7	.75104	.42078	1224.6

#1	-.00013	.00064	.22836	47.164	-.00211
#2	.00060	-.00054	.23080	46.885	.00168

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-3-a Acquired: 11/2/2018 21:12:48 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.886	.58815	-.00068	26.823	.00075
Stddev	.048	.00088	.00033	.070	.00013
%RSD	.32098	.15023	48.243	.26248	17.504

#1	14.920	.58878	-.00091	26.873	.00065
#2	14.852	.58753	-.00045	26.773	.00084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	18.639	-.00322	-.00278	6.1556
Stddev	.00083	.016	.00122	.00056	.0025
%RSD	1222.1	.08773	37.968	20.239	.04004

#1	-.00052	18.627	-.00236	-.00318	6.1573
#2	.00066	18.650	-.00409	-.00238	6.1538

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	.18264	.00045	.00274	-.00125
Stddev	.00039	.00082	.00018	.00022	.00051
%RSD	93.231	.44964	40.176	8.1505	41.085

#1	.00069	.18323	.00058	.00290	-.00161
#2	.00014	.18206	.00032	.00258	-.00088

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-3-a Acquired: 11/2/2018 21:12:48 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00368**
 Stddev .00025
 %RSD 6.6782

#1 **.00385**
 #2 **.00351**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.7	3113.0	25211.	2975.2
Stddev	4.2	2.3	78.	9.4
%RSD	.13316	.07511	.30822	.31546

#1	3183.7	3114.7	25265.	2968.5
#2	3177.7	3111.4	25156.	2981.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.88%	97.340%	100.30%	98.635%
Range				

Sample Name: 480-144265-c-4-a Acquired: 11/2/2018 21:16:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00083	.02691	.06314	.08398	.01137
Stddev	.00032	.01608	.00003	.00068	.00004
%RSD	37.806	59.744	.05088	.80969	.35377

#1	-.00061	.03828	.06316	.08446	.01134
#2	-.00106	.01554	.06312	.08350	.01140

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	37.114	.00010	-.0257	.00069
Stddev	.00011	.248	.00009	.0492	.00004
%RSD	210.79	.66780	94.580	191.7	6.3411

#1	.00013	36.939	.00003	-.0605	.00066
#2	-.00003	37.290	.00016	.0091	.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00051	-.00122	42.055	26.668	-.00038
Stddev	.00012	.00068	.258	.194	.00028
%RSD	23.640	56.008	.61260	.72761	75.195

#1	.00060	-.00170	41.873	26.531	-.00058
#2	.00043	-.00074	42.237	26.805	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-4-a Acquired: 11/2/2018 21:16:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.2354	.54592	.00033	19.209	.00139
Stddev	.0014	.00081	.00016	.043	.00040
%RSD	.01539	.14904	47.955	.22304	28.513

#1	9.2364	.54649	.00022	19.179	.00167
#2	9.2344	.54534	.00045	19.239	.00111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00166	2.2150	-.00429	-.00320	5.7242
Stddev	.00056	.0003	.00148	.00439	.0414
%RSD	33.926	.01130	34.556	137.08	.72320

#1	.00126	2.2148	-.00324	-.00630	5.6949
#2	.00205	2.2152	-.00534	-.00010	5.7534

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.15489	.00389	.00291	.00279
Stddev	.00005	.00053	.00054	.00063	.00078
%RSD	13.017	.34053	13.868	21.593	27.772

#1	.00039	.15526	.00351	.00335	.00334
#2	.00032	.15452	.00428	.00246	.00225

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-4-a Acquired: 11/2/2018 21:16:26 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00485**
 Stddev .00058
 %RSD 11.957

#1 **.00526**
 #2 **.00444**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3177.3	3113.4	25081.	3004.1
Stddev	2.7	1.1	39.	27.6
%RSD	.08566	.03642	.15351	.91820

#1	3175.3	3112.6	25109.	3023.6
#2	3179.2	3114.2	25054.	2984.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.77%	97.350%	99.791%	99.595%
Range				

Sample Name: 480-144265-c-5-a Acquired: 11/2/2018 21:20:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	-.01680	.00407	.01773	.02169
Stddev	.00134	.01990	.00106	.00012	.00002
%RSD	300.75	118.47	26.057	.70088	.11118

#1	.00050	-.03087	.00332	.01765	.02170
#2	-.00140	-.00273	.00482	.01782	.02167

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	7.5116	.00000	-.0442	.00289
Stddev	.00010	.0383	.00015	.0055	.00000
%RSD	62.531	.51006	80716.	12.55	.04177

#1	.00009	7.4845	-.00010	-.0403	.00289
#2	.00022	7.5387	.00010	-.0481	.00289

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.00056	1.4594	4.4514	.00174
Stddev	.00050	.00124	.0114	.0627	.00093
%RSD	423.47	222.46	.78167	1.4094	53.683

#1	.00047	.00032	1.4514	4.4071	.00240
#2	-.00023	-.00144	1.4675	4.4958	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-5-a Acquired: 11/2/2018 21:20:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.6731	.35304	-.00074	18.591	.00088
Stddev	.0060	.00090	.00021	.063	.00009
%RSD	.12831	.25622	28.110	.33670	10.793

#1	4.6773	.35368	-.00059	18.547	.00081
#2	4.6688	.35240	-.00089	18.635	.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00078	4.0318	-.00237	-.00352	4.2549
Stddev	.00125	.0050	.00152	.00037	.0187
%RSD	159.08	.12413	64.029	10.585	.43998

#1	.00166	4.0353	-.00130	-.00378	4.2681
#2	-.00010	4.0282	-.00345	-.00326	4.2417

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.05387	.00012	.00224	-.00060
Stddev	.00041	.00031	.00056	.00018	.00022
%RSD	530.31	.57019	454.43	8.0470	36.063

#1	.00036	.05365	-.00027	.00211	-.00075
#2	-.00021	.05408	.00052	.00237	-.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-5-a Acquired: 11/2/2018 21:20:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00371**
Stddev .00091
%RSD 24.559

#1 **.00435**
#2 **.00306**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3220.6	3135.3	25127.	3006.8
Stddev	1.0	2.7	67.	1.7
%RSD	.03233	.08462	.26538	.05698

#1	3219.9	3137.2	25080.	3008.0
#2	3221.3	3133.4	25174.	3005.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	104.17%	98.036%	99.972%	99.684%
Range				

Sample Name: 480-144265-c-6-a Acquired: 11/2/2018 21:23:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00129	.03044	.00068	.02294	.00744
Stddev	.00082	.01412	.00106	.00052	.00000
%RSD	63.352	46.395	156.40	2.2686	.01795

#1	-.00187	.04043	-.00007	.02331	.00744
#2	-.00071	.02045	.00143	.02257	.00744

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	8.8491	-.00005	-.0122	.00613
Stddev	.00004	.0228	.00003	.0587	.00020
%RSD	20.544	.25805	56.090	481.5	3.3304

#1	.00015	8.8653	-.00008	-.0537	.00628
#2	.00020	8.8330	-.00003	.0293	.00599

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00315	.05815	3.2492	.00028
Stddev	.00053	.00021	.00206	.0101	.00055
%RSD	175.80	6.6420	3.5492	.30947	195.57

#1	-.00007	.00330	.05961	3.2564	-.00011
#2	.00068	.00300	.05669	3.2421	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-6-a Acquired: 11/2/2018 21:23:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.5255	.43350	-.00067	10.179	.00310
Stddev	.0013	.00052	.00027	.012	.00009
%RSD	.08343	.11994	40.881	.11909	3.0072

#1	1.5264	.43387	-.00086	10.187	.00304
#2	1.5246	.43313	-.00047	10.170	.00317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	7.0187	-.00198	-.00259	4.2457
Stddev	.00040	.0249	.00036	.00021	.0643
%RSD	131.22	.35527	18.396	8.2811	1.5149

#1	-.00002	7.0363	-.00224	-.00275	4.2911
#2	-.00058	7.0011	-.00172	-.00244	4.2002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.04280	.00095	.00270	-.00059
Stddev	.00007	.00007	.00038	.00089	.00067
%RSD	22.826	.15768	40.307	33.063	113.23

#1	.00038	.04285	.00122	.00334	-.00107
#2	.00027	.04275	.00068	.00207	-.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-144265-c-6-a Acquired: 11/2/2018 21:23:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01108**
 Stddev .00018
 %RSD 1.6654

#1 **.01121**
 #2 **.01095**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3221.9	3140.6	25029.	2990.1
Stddev	5.3	.3	12.	15.4
%RSD	.16509	.01010	.04624	.51474

#1	3225.6	3140.3	25021.	3001.0
#2	3218.1	3140.8	25037.	2979.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	104.21%	98.200%	99.584%	99.131%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 21:27:28 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56262	25.534	.52498	.50463	.51302
Stddev	.00054	.114	.00305	.00001	.00038
%RSD	.09554	.44466	.58086	.00178	.07421

#1	.56224	25.454	.52713	.50464	.51275
#2	.56300	25.614	.52282	.50462	.51329

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50878	26.415	.52856	-.0133	.50441
Stddev	.00018	.014	.00045	.0775	.00073
%RSD	.03490	.05298	.08467	585.0	.14523

#1	.50866	26.425	.52824	-.0681	.50492
#2	.50891	26.406	.52887	.0416	.50389

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51418	.52806	26.299	25.038	.49878
Stddev	.00360	.00269	.013	.018	.00122
%RSD	.70026	.51022	.04762	.07023	.24409

#1	.51164	.52996	26.308	25.051	.49964
#2	.51673	.52615	26.290	25.026	.49792

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 21:27:28 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.139	.53519	.50250	25.060	.50270
Stddev	.051	.00051	.00133	.010	.00027
%RSD	.19690	.09575	.26493	.04060	.05396

#1	26.103	.53483	.50345	25.067	.50251
#2	26.175	.53555	.50156	25.053	.50289

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50820	27.004	.51740	.52404	25.926
Stddev	.00036	.003	.00076	.00408	.066
%RSD	.07003	.01289	.14652	.77782	.25274

#1	.50845	27.001	.51686	.52692	25.972
#2	.50795	27.006	.51794	.52116	25.880

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53190	.52788	.52709	.48754	.50988
Stddev	.00089	.00071	.00111	.00065	.00118
%RSD	.16778	.13411	.21073	.13268	.23132

#1	.53253	.52838	.52787	.48799	.50905
#2	.53126	.52738	.52630	.48708	.51071

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 21:27:28 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.52299**
 Stddev .00137
 %RSD .26106

#1 **.52202**
 #2 **.52395**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3154.4	3100.4	24652.	2955.3
Stddev	2.4	2.3	31.	7.7
%RSD	.07726	.07560	.12615	.26095
#1	3152.7	3102.0	24674.	2949.8
#2	3156.2	3098.7	24630.	2960.7

Sample Name: ccb-4975309 Acquired: 11/2/2018 21:30:55 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	-.03622	-.00030	-.00076	.00004
Stddev	.00082	.03955	.00123	.00001	.00002
%RSD	97.497	109.20	407.59	1.2279	64.959

#1	-.00026	-.06419	-.00117	-.00077	.00005
#2	-.00142	-.00825	.00057	-.00075	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.00328	.00013	.0651	.00015
Stddev	.00011	.00081	.00013	.0119	.00003
%RSD	480.67	24.842	100.59	18.28	21.028

#1	-.00010	-.00270	.00022	.0735	.00013
#2	.00005	-.00385	.00004	.0566	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00110	.00082	.00782	-.00040
Stddev	.00025	.00007	.00123	.02131	.00048
%RSD	98.115	6.5683	149.88	272.61	121.32

#1	.00043	-.00115	-.00005	-.00725	-.00006
#2	.00008	-.00105	.00169	.02289	-.00074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 21:30:55 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00404	.00012	.00066	-.04079	.00013
Stddev	.00291	.00002	.00048	.00624	.00020
%RSD	72.145	15.186	72.087	15.291	151.61

#1	-.00610	.00011	.00032	-.04520	.00028
#2	-.00198	.00014	.00100	-.03638	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.00196	-.00176	-.00125	-.01445
Stddev	.00027	.00042	.00105	.00061	.00318
%RSD	223.79	21.457	59.578	48.468	22.045

#1	-.00007	-.00167	-.00251	-.00168	-.01219
#2	.00031	-.00226	-.00102	-.00082	-.01670

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	-.00014	.00012	.00137	-.00130
Stddev	.00015	.00025	.00054	.00075	.00065
%RSD	32.676	177.87	442.37	55.031	49.554

#1	-.00035	-.00032	.00050	.00084	-.00176
#2	-.00056	.00004	-.00026	.00191	-.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 21:30:55 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00020**
 Stddev .00105
 %RSD 517.17

#1 **.00095**
 #2 **-.00054**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3160.4	3114.1	24616.	2926.3
Stddev	2.9	5.5	102.	.3
%RSD	.09153	.17670	.41237	.01071
#1	3158.4	3110.2	24687.	2926.6
#2	3162.5	3118.0	24544.	2926.1

Sample Name: ccvl-4970377 Acquired: 11/2/2018 21:34:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00571	.15766	.01724	.01883	.00211
Stddev	.00010	.00690	.00053	.00016	.00004
%RSD	1.6984	4.3778	3.0804	.83562	2.0405

#1	.00565	.15278	.01686	.01872	.00208
#2	.00578	.16254	.01761	.01894	.00214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00220	.55099	.00213	.0250	.00423
Stddev	.00004	.00577	.00015	.0150	.00016
%RSD	1.9098	1.0476	6.9897	60.15	3.8877

#1	.00223	.54691	.00223	.0143	.00411
#2	.00217	.55508	.00202	.0356	.00434

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00437	.00930	.04892	.43724	.02827
Stddev	.00004	.00114	.00073	.04303	.00111
%RSD	.92321	12.307	1.4920	9.8409	3.9165

#1	.00434	.00849	.04944	.40681	.02905
#2	.00440	.01011	.04840	.46766	.02748

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 21:34:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21084	.00313	.00917	.94303	.01098
Stddev	.00004	.00001	.00000	.00865	.00032
%RSD	.01742	.22640	.04472	.91720	2.8956

#1	.21081	.00312	.00917	.93692	.01076
#2	.21086	.00313	.00917	.94915	.01121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01140	.20704	.01725	.01949	.48714
Stddev	.00008	.00106	.00088	.00260	.01152
%RSD	.66206	.51401	5.0887	13.349	2.3655

#1	.01145	.20779	.01787	.02134	.47899
#2	.01134	.20628	.01663	.01765	.49529

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01029	.00528	.00558	.02090	.00447
Stddev	.00021	.00014	.00013	.00061	.00015
%RSD	2.0230	2.6991	2.3229	2.9295	3.3272

#1	.01015	.00539	.00568	.02133	.00458
#2	.01044	.00518	.00549	.02046	.00437

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 21:34:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.01145**
Stddev .00034
%RSD 2.9585

#1 **.01168**
#2 **.01121**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3210.1	3165.6	24949.	2956.6
Stddev	1.2	2.6	38.	13.1
%RSD	.03758	.08144	.15308	.44407
#1	3211.0	3167.4	24922.	2965.9
#2	3209.3	3163.8	24976.	2947.4

Sample Name: 480-143880-b-15-b Acquired: 11/2/2018 21:38:22 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	-.04483	.00063	.82483	.03810
Stddev	.00087	.02808	.00041	.00058	.00005
%RSD	11160.	62.635	65.602	.07036	.14335

#1	-.00061	-.02498	.00092	.82442	.03814
#2	.00062	-.06469	.00034	.82524	.03807

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	12.426	.00014	-.0004	-.00034
Stddev	.00007	.039	.00010	.0079	.00004
%RSD	49.452	.30980	71.492	1885.	12.308

#1	.00010	12.399	.00021	-.0060	-.00037
#2	.00020	12.453	.00007	.0051	-.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00169	.10861	1.3300	.00456
Stddev	.00027	.00016	.00208	.0101	.00154
%RSD	175.89	9.5538	1.9138	.76011	33.813

#1	.00035	-.00180	.10714	1.3372	.00347
#2	-.00004	-.00158	.11008	1.3229	.00565

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-b-15-b Acquired: 11/2/2018 21:38:22 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.8763	.00540	.24942	67.405	.00053
Stddev	.0188	.00016	.00124	.302	.00038
%RSD	.38661	3.0039	.49897	.44738	72.515

#1	4.8896	.00551	.25030	67.618	.00026
#2	4.8629	.00528	.24854	67.191	.00080

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00112	.11692	-.00421	-.00476	6.1575
Stddev	.00049	.00100	.00023	.00190	.0049
%RSD	43.816	.85235	5.4381	39.825	.07982

#1	.00077	.11622	-.00405	-.00610	6.1541
#2	.00147	.11763	-.00437	-.00342	6.1610

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.60629	.00045	.00351	-.00130
Stddev	.00001	.00102	.00063	.00051	.00095
%RSD	4.7912	.16770	139.64	14.546	73.008

#1	-.00018	.60557	.00001	.00315	-.00198
#2	-.00017	.60701	.00090	.00387	-.00063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-b-15-b Acquired: 11/2/2018 21:38:22 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00210**
 Stddev .00024
 %RSD 11.343

#1 **.00194**
 #2 **.00227**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3207.0	3114.0	24877.	3031.1
Stddev	7.9	5.7	2.	8.6
%RSD	.24774	.18312	.00630	.28384

#1	3212.6	3118.0	24876.	3037.1
#2	3201.4	3110.0	24878.	3025.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.73%	97.369%	98.978%	100.49%
Range				

Sample Name: 480-143880-b-16-b Acquired: 11/2/2018 21:42:01 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	1.0857	.00209	.85851	.03939
Stddev	.00085	.0640	.00031	.00081	.00005
%RSD	114.48	5.8924	14.683	.09393	.13601

#1	-.00014	1.1310	.00231	.85908	.03943
#2	-.00135	1.0405	.00187	.85793	.03935

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	15.902	-.00007	-.0006	.00082
Stddev	.00006	.031	.00006	.0247	.00010
%RSD	28.214	.19529	95.377	4237.	12.658

#1	.00017	15.924	-.00011	.0169	.00075
#2	.00025	15.880	-.00002	-.0181	.00089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00178	-.00116	1.1703	1.6191	.00595
Stddev	.00025	.00071	.0070	.0298	.00087
%RSD	13.845	61.800	.60220	1.8403	14.688

#1	.00195	-.00166	1.1653	1.6401	.00533
#2	.00160	-.00065	1.1752	1.5980	.00657

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-b-16-b Acquired: 11/2/2018 21:42:01 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.0198	.03246	.03881	100.50	.00170
Stddev	.0095	.00008	.00016	.04	.00011
%RSD	.15755	.25302	.41473	.04433	6.3689

#1	6.0131	.03241	.03869	100.47	.00163
#2	6.0265	.03252	.03892	100.53	.00178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00044	5.4254	-.00159	-.00333	7.8245
Stddev	.00075	.0121	.00035	.00264	.0170
%RSD	172.09	.22332	22.028	79.405	.21770

#1	-.00009	5.4340	-.00135	-.00520	7.8125
#2	.00097	5.4169	-.00184	-.00146	7.8366

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00057	.64966	.02178	.00414	.00186
Stddev	.00022	.00113	.00119	.00038	.00005
%RSD	39.178	.17352	5.4862	9.2915	2.5622

#1	.00041	.64886	.02093	.00441	.00189
#2	.00073	.65046	.02262	.00387	.00183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-b-16-b Acquired: 11/2/2018 21:42:01 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00494**
 Stddev .00041
 %RSD 8.3954

#1 **.00464**
 #2 **.00523**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3188.2	3089.4	24884.	2990.3
Stddev	1.9	.2	49.	7.8
%RSD	.06080	.00688	.19708	.25948

#1	3189.6	3089.3	24919.	2984.8
#2	3186.8	3089.6	24849.	2995.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.13%	96.601%	99.006%	99.137%
Range				

Sample Name: 480-143880-c-17-b Acquired: 11/2/2018 21:45:40 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00104	-.02174	.00225	.66462	.06210
Stddev	.00049	.02813	.00087	.00097	.00004
%RSD	47.203	129.38	38.583	.14635	.07122

#1	-.00070	-.00185	.00164	.66393	.06207
#2	-.00139	-.04163	.00287	.66530	.06213

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	7.5367	.00008	-.0804	.00030
Stddev	.00013	.0045	.00003	.0351	.00015
%RSD	89.759	.05913	39.373	43.65	49.610

#1	.00005	7.5335	.00006	-.0556	.00020
#2	.00024	7.5398	.00010	-.1052	.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	-.00160	.00365	4.3496	.01311
Stddev	.00009	.00128	.00161	.0524	.00086
%RSD	18.278	79.596	44.212	1.2035	6.5230

#1	-.00057	-.00251	.00479	4.3866	.01372
#2	-.00044	-.00070	.00251	4.3126	.01251

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-c-17-b Acquired: 11/2/2018 21:45:40 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	4.0051	.00441	.02965	73.570	.00044
Stddev	.0110	.00004	.00010	.348	.00006
%RSD	.27340	.93524	.34521	.47235	13.716

#1	3.9974	.00444	.02958	73.816	.00039
#2	4.0128	.00438	.02972	73.325	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00150	9.7511	-.00280	-.00326	5.0613
Stddev	.00197	.0176	.00044	.00027	.0246
%RSD	131.47	.18050	15.553	8.1893	.48658

#1	.00290	9.7635	-.00311	-.00308	5.0787
#2	.00011	9.7386	-.00250	-.00345	5.0439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.71710	.00085	.00331	-.00086
Stddev	.00075	.00126	.00058	.00052	.00009
%RSD	211.13	.17559	68.107	15.586	10.739

#1	-.00017	.71799	.00125	.00295	-.00092
#2	.00088	.71621	.00044	.00368	-.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143880-c-17-b Acquired: 11/2/2018 21:45:40 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00195**
 Stddev .00082
 %RSD 42.313

#1 **.00253**
 #2 **.00137**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3214.9	3109.0	25027.	2978.1
Stddev	2.6	5.4	20.	.6
%RSD	.08212	.17270	.08079	.02084

#1	3213.0	3105.2	25042.	2978.5
#2	3216.8	3112.8	25013.	2977.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.99%	97.214%	99.576%	98.732%
Range				

Sample Name: 480-143882-b-1-a Acquired: 11/2/2018 21:49:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00120	-.04086	.00270	2.2666	.06302
Stddev	.00036	.01134	.00134	.0040	.00014
%RSD	29.994	27.765	49.724	.17680	.22356

#1	-.00095	-.03284	.00365	2.2638	.06292
#2	-.00145	-.04888	.00175	2.2695	.06312

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	7.9045	-.00005	.0112	.00002
Stddev	.00014	.0210	.00001	.0001	.00011
%RSD	1146.3	.26541	11.146	.7544	453.19

#1	.00009	7.9193	-.00005	.0112	.00010
#2	-.00011	7.8897	-.00006	.0111	-.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00172	.01598	1.8729	.01374
Stddev	.00017	.00117	.00303	.0177	.00022
%RSD	121.89	68.128	18.983	.94289	1.5939

#1	-.00002	-.00089	.01383	1.8604	.01359
#2	-.00026	-.00254	.01812	1.8854	.01390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143882-b-1-a Acquired: 11/2/2018 21:49:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	3.3947	.00949	.11640	197.29	.00084
Stddev	.0178	.00002	.00065	.16	.00056
%RSD	.52493	.16893	.55556	.07897	67.067

#1	3.4073	.00948	.11686	197.18	.00044
#2	3.3821	.00950	.11595	197.40	.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00076	.14088	-.00213	-.00514	5.1373
Stddev	.00066	.00329	.00160	.00091	.0526
%RSD	86.934	2.3356	75.098	17.672	1.0242

#1	.00123	.14321	-.00100	-.00578	5.1001
#2	.00029	.13855	-.00326	-.00450	5.1745

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.26706	.00052	.00510	-.00077
Stddev	.00002	.00099	.00016	.00078	.00023
%RSD	3.6329	.37149	30.244	15.224	29.442

#1	.00065	.26776	.00041	.00455	-.00061
#2	.00069	.26635	.00063	.00565	-.00093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143882-b-1-a Acquired: 11/2/2018 21:49:19 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00200**
 Stddev .00007
 %RSD 3.3352

#1 **.00195**
 #2 **.00204**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.9	3097.0	25248.	2970.7
Stddev	2.9	5.1	4.	23.4
%RSD	.09142	.16570	.01772	.78831

#1	3155.0	3100.7	25245.	2954.1
#2	3150.9	3093.4	25251.	2987.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.99%	96.840%	100.45%	98.486%
Range				

Sample Name: 480-143882-c-2-a Acquired: 11/2/2018 21:52:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00048	-.03366	.00107	.71702	.01112
Stddev	.00086	.05863	.00094	.00271	.00006
%RSD	177.56	174.19	87.950	.37755	.51538

#1	-.00109	.00780	.00040	.71893	.01108
#2	.00012	-.07511	.00173	.71511	.01116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	187.91	.00027	-.0061	.00011
Stddev	.00001	.45	.00013	.0173	.00010
%RSD	8.9223	.23759	46.583	284.1	96.466

#1	.00012	187.60	.00018	-.0183	.00003
#2	.00013	188.23	.00036	.0061	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00061	-.00285	.69747	3.1605	.02049
Stddev	.00052	.00024	.00439	.0279	.00068
%RSD	85.208	8.4472	.62988	.88215	3.3157

#1	.00097	-.00302	.70058	3.1408	.02001
#2	.00024	-.00268	.69436	3.1802	.02097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143882-c-2-a Acquired: 11/2/2018 21:52:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	74.519	.10483	.05652	197.78	.00044
Stddev	.136	.00052	.00019	.27	.00011
%RSD	.18270	.49637	.33275	.13852	24.029

#1	74.423	.10446	.05666	197.58	.00051
#2	74.616	.10520	.05639	197.97	.00037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00199	F 372.99	-.00294	-.00675	6.0873
Stddev	.00036	1.14	.00036	.00210	.0665
%RSD	18.085	.30467	12.152	31.119	1.0923

#1	.00224	373.79	-.00319	-.00526	6.0403
#2	.00173	372.19	-.00268	-.00823	6.1344

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00005	F 9.7770	-.00010	.00481	-.00162
Stddev	.00026	.0164	.00025	.00134	.00027
%RSD	534.70	.16819	263.00	27.863	16.345

#1	.00024	9.7654	.00008	.00575	-.00143
#2	-.00014	9.7886	-.00027	.00386	-.00181

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		9.0000			
Low Limit		-.00500			

Sample Name: 480-143882-c-2-a Acquired: 11/2/2018 21:52:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00398**
Stddev .00119
%RSD 29.938

#1 **.00483**
#2 **.00314**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3042.5	2997.4	24822.	2926.2
Stddev	4.4	1.0	23.	17.6
%RSD	.14568	.03458	.09439	.60009

#1	3045.6	2998.1	24839.	2938.6
#2	3039.3	2996.6	24806.	2913.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.412%	93.723%	98.760%	97.011%
Range				

Sample Name: 480-143890-d-1-a Acquired: 11/2/2018 21:56:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00120	-.01802	.00111	.02198	.06984
Stddev	.00041	.00101	.00063	.00010	.00005
%RSD	34.378	5.5818	56.125	.43414	.07593

#1	-.00091	-.01873	.00156	.02205	.06981
#2	-.00149	-.01731	.00067	.02191	.06988

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	90.991	.00019	-.0165	.00003
Stddev	.00004	.007	.00007	.0538	.00007
%RSD	28.416	.00769	38.866	326.1	238.06

#1	.00018	90.996	.00014	.0216	.00008
#2	.00012	90.986	.00024	-.0546	-.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00280	-.00049	.00388	.94559	.00595
Stddev	.00011	.00009	.00026	.03902	.00162
%RSD	4.0146	17.882	6.8122	4.1265	27.241

#1	.00272	-.00056	.00407	.97318	.00709
#2	.00288	-.00043	.00369	.91800	.00480

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143890-d-1-a Acquired: 11/2/2018 21:56:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	31.596	.00069	-.00056	6.3823	.00088
Stddev	.082	.00004	.00042	.0437	.00022
%RSD	.26070	5.4736	75.213	.68405	24.830

#1	31.538	.00071	-.00086	6.4132	.00073
#2	31.655	.00066	-.00026	6.3515	.00104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00342	7.2903	-.00318	-.00214	16.249
Stddev	.00061	.0002	.00172	.00013	.076
%RSD	17.779	.00334	54.186	6.2529	.46517

#1	.00385	7.2905	-.00196	-.00204	16.302
#2	.00299	7.2902	-.00439	-.00223	16.195

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.11975	-.00028	.00196	.00080
Stddev	.00036	.00028	.00045	.00177	.00039
%RSD	106.84	.23225	161.59	90.059	48.860

#1	.00008	.11995	-.00060	.00071	.00052
#2	.00060	.11955	.00004	.00322	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143890-d-1-a Acquired: 11/2/2018 21:56:36 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00332**
 Stddev .00044
 %RSD 13.380

#1 **.00364**
 #2 **.00301**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3137.2	3056.7	24713.	2984.2
Stddev	4.8	.4	39.	5.4
%RSD	.15249	.01176	.15739	.18194

#1	3140.6	3057.0	24741.	2980.4
#2	3133.8	3056.5	24686.	2988.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.48%	95.580%	98.326%	98.935%
Range				

Sample Name: 480-143890-d-2-a Acquired: 11/2/2018 22:00:16 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00065	-.02185	.00128	.01442	.05827
Stddev	.00051	.03863	.00231	.00049	.00001
%RSD	79.017	176.76	181.06	3.3703	.01910

#1	-.00101	-.04916	-.00036	.01476	.05826
#2	-.00028	.00546	.00291	.01408	.05828

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	100.51	.00042	-.0286	.00023
Stddev	.00004	.14	.00000	.0195	.00006
%RSD	311.23	.13574	.41864	68.42	26.593

#1	.00002	100.41	.00042	-.0147	.00027
#2	-.00005	100.61	.00041	-.0424	.00019

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00208	.00021	.18051	1.2526	.01508
Stddev	.00019	.00033	.00183	.0276	.00058
%RSD	8.9808	161.88	1.0137	2.1991	3.8279

#1	.00221	-.00003	.17922	1.2331	.01549
#2	.00195	.00044	.18180	1.2721	.01467

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143890-d-2-a Acquired: 11/2/2018 22:00:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	46.752	.00294	-.00027	6.9171	.00078
Stddev	.074	.00005	.00012	.0366	.00000
%RSD	.15768	1.6650	45.307	.52956	.36002

#1	46.804	.00290	-.00018	6.8912	.00078
#2	46.700	.00297	-.00035	6.9430	.00078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00127	23.811	-.00293	-.00283	12.486
Stddev	.00081	.042	.00135	.00090	.031
%RSD	64.166	.17561	46.024	31.997	.24490

#1	.00069	23.782	-.00389	-.00347	12.464
#2	.00184	23.841	-.00198	-.00219	12.507

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.16582	-.00002	.00307	.00020
Stddev	.00027	.00027	.00088	.00032	.00016
%RSD	181.74	.16522	3886.5	10.432	83.772

#1	.00004	.16602	.00060	.00284	.00031
#2	-.00034	.16563	-.00065	.00329	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143890-d-2-a Acquired: 11/2/2018 22:00:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00363**
Stddev .00090
%RSD 24.807

#1 **.00299**
#2 **.00427**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3122.8	3052.2	24899.	2939.3
Stddev	2.8	5.9	34.	16.9
%RSD	.08977	.19182	.13599	.57624

#1	3124.8	3056.4	24922.	2951.2
#2	3120.8	3048.1	24875.	2927.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.01%	95.439%	99.063%	97.444%
Range				

Sample Name: mb 480-441762/1-a Acquired: 11/2/2018 22:03:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	.00346	.00150	.00156	.00017
Stddev	.00087	.01891	.00195	.00022	.00002
%RSD	163.18	546.34	129.88	14.167	12.741

#1	-.00114	.01684	.00288	.00172	.00018
#2	.00008	-.00991	.00012	.00141	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.06947	-.00020	-.0500	.00025
Stddev	.00002	.00271	.00001	.0124	.00029
%RSD	44.895	3.9067	6.5986	24.77	115.05

#1	.00004	.07139	-.00019	-.0587	.00005
#2	.00007	.06755	-.00021	-.0412	.00046

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	-.00126	.00778	-.00538	-.00120
Stddev	.00005	.00022	.00037	.00578	.00298
%RSD	22.588	17.384	4.7043	107.33	248.50

#1	.00025	-.00111	.00804	-.00130	.00091
#2	.00018	-.00142	.00753	-.00947	-.00331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441762/1-a Acquired: 11/2/2018 22:03:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00728	.00030	-.00065	-.01403	.00060
Stddev	.00213	.00002	.00056	.00688	.00024
%RSD	29.264	7.8213	86.413	49.079	39.720

#1	.00879	.00032	-.00105	-.01889	.00043
#2	.00577	.00029	-.00025	-.00916	.00076

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00017	.00962	-.00282	-.00274	-.03272
Stddev	.00094	.00132	.00157	.00082	.01047
%RSD	550.06	13.738	55.583	30.141	31.990

#1	.00050	.00868	-.00171	-.00215	-.02532
#2	-.00084	.01055	-.00393	-.00332	-.04012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00030	.00046	.00186	-.00043
Stddev	.00037	.00006	.00071	.00100	.00037
%RSD	234.62	18.703	154.43	53.819	85.080

#1	-.00010	.00026	.00096	.00256	-.00069
#2	.00042	.00034	-.00004	.00115	-.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441762/1-a Acquired: 11/2/2018 22:03:56 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00317**
 Stddev .00062
 %RSD 19.466

#1 **.00360**
 #2 **.00273**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3175.0	3138.2	24948.	2984.8
Stddev	.5	4.1	41.	22.6
%RSD	.01470	.12989	.16618	.75652

#1	3174.7	3141.1	24978.	2968.9
#2	3175.3	3135.3	24919.	3000.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.70%	98.127%	99.262%	98.956%
Range				

Sample Name: lcs 480-441762/2-a Acquired: 11/2/2018 22:07:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05235	10.267	.21632	.20046	.20081
Stddev	.00041	.022	.00097	.00019	.00069
%RSD	.78393	.21296	.44931	.09432	.34601

#1	.05206	10.283	.21563	.20060	.20032
#2	.05264	10.252	.21701	.20033	.20130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20943	10.745	.21784	-.0037	.20036
Stddev	.00002	.078	.00030	.0101	.00064
%RSD	.01061	.72240	.13809	271.5	.32135

#1	.20942	10.690	.21763	.0034	.19991
#2	.20945	10.799	.21805	-.0109	.20082

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20773	.20258	10.682	9.9401	.19375
Stddev	.00202	.00043	.066	.0214	.00008
%RSD	.97150	.21046	.61672	.21566	.04154

#1	.20630	.20228	10.636	9.9249	.19381
#2	.20916	.20288	10.729	9.9552	.19370

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441762/2-a Acquired: 11/2/2018 22:07:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.394	.21105	.19722	9.6826	.20790
Stddev	.081	.00183	.00006	.0422	.00046
%RSD	.77537	.86906	.03162	.43549	.22357

#1	10.337	.20975	.19727	9.6528	.20757
#2	10.451	.21235	.19718	9.7124	.20823

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21892	10.731	.20809	.20202	10.301
Stddev	.00052	.019	.00035	.00071	.016
%RSD	.23641	.17828	.16900	.35359	.15517

#1	.21929	10.718	.20784	.20252	10.312
#2	.21855	10.745	.20834	.20151	10.290

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20858	.20984	.21156	.19364	.20392
Stddev	.00096	.00057	.00028	.00014	.00098
%RSD	.46129	.27217	.13341	.07454	.47986

#1	.20790	.20944	.21136	.19374	.20323
#2	.20926	.21024	.21176	.19353	.20461

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441762/2-a Acquired: 11/2/2018 22:07:38 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22120**
 Stddev .00243
 %RSD 1.0999

#1 **.21948**
 #2 **.22292**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3209.6	3123.4	24796.	3014.1
Stddev	9.6	8.2	58.	38.3
%RSD	.29951	.26101	.23385	1.2722

#1	3216.4	3129.2	24837.	3041.2
#2	3202.8	3117.7	24755.	2987.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.82%	97.665%	98.656%	99.926%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 22:11:11 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .57865	25.457	.52982	.50486	.52511
Stddev	.00129	.016	.00462	.00127	.00005
%RSD	.22336	.06374	.87279	.25106	.00920

#1	.57957	25.469	.53309	.50396	.52514
#2	.57774	25.446	.52655	.50575	.52507

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50432	27.155	.53423	-.0101	.50982
Stddev	.00111	.072	.00024	.0202	.00109
%RSD	.21980	.26548	.04571	200.2	.21309

#1	.50511	27.206	.53405	-.0244	.50905
#2	.50354	27.104	.53440	.0042	.51059

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51429	.54562	26.769	24.952	.49271
Stddev	.00150	.00079	.025	.017	.00061
%RSD	.29253	.14494	.09501	.06902	.12452

#1	.51535	.54506	26.751	24.964	.49227
#2	.51322	.54618	26.787	24.939	.49314

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 22:11:11 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.686	.54627	.50272	24.598	.50517
Stddev	.081	.00053	.00021	.012	.00052
%RSD	.30464	.09736	.04151	.04677	.10339

#1	26.743	.54665	.50287	24.606	.50480
#2	26.628	.54590	.50257	24.590	.50554

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51489	27.334	.52239	.52376	26.131
Stddev	.00007	.015	.00058	.00076	.053
%RSD	.01405	.05362	.11071	.14537	.20128

#1	.51494	27.344	.52280	.52323	26.168
#2	.51483	27.323	.52198	.52430	26.094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53691	.53202	.53334	.48740	.50747
Stddev	.00128	.00088	.00128	.00016	.00071
%RSD	.23926	.16515	.23919	.03268	.14024

#1	.53782	.53264	.53424	.48751	.50696
#2	.53600	.53140	.53244	.48729	.50797

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 22:11:11 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.52510**
Stddev .00206
%RSD .39142

#1 **.52655**
#2 **.52365**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3157.6	3082.7	24537.	2953.4
Stddev	1.0	1.9	61.	4.1
%RSD	.03183	.06256	.24890	.13895
#1	3158.3	3084.0	24493.	2950.4
#2	3156.9	3081.3	24580.	2956.3

Sample Name: ccb-4975309 Acquired: 11/2/2018 22:14:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00055	-.02569	.00009	.00014	.00001
Stddev	.00050	.00805	.00206	.00001	.00001
%RSD	92.379	31.323	2348.4	6.5833	126.81

#1	-.00090	-.02000	.00154	.00015	.00000
#2	-.00019	-.03138	-.00137	.00014	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	.00078	.00009	.0226	-.00004
Stddev	.00014	.00619	.00005	.0081	.00017
%RSD	1691.1	793.35	53.930	35.66	385.56

#1	-.00011	-.00359	.00005	.0169	.00007
#2	.00009	.00515	.00012	.0283	-.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	-.00176	-.00361	-.01289	.00027
Stddev	.00068	.00098	.00276	.02589	.00122
%RSD	334.82	55.656	76.648	200.86	448.58

#1	-.00028	-.00245	-.00165	-.03120	.00114
#2	.00068	-.00107	-.00556	.00542	-.00059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 22:14:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00389	.00029	.00082	-.03924	.00041
Stddev	.00082	.00014	.00033	.00710	.00003
%RSD	21.132	48.173	39.699	18.092	8.0387

#1	.00331	.00019	.00059	-.03422	.00039
#2	.00448	.00039	.00106	-.04425	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	-.00213	-.00117	-.00252	-.04630
Stddev	.00109	.00019	.00166	.00103	.00649
%RSD	552.83	9.0112	141.90	40.987	14.020

#1	-.00057	-.00199	-.00234	-.00325	-.05088
#2	.00096	-.00226	.00000	-.00179	-.04171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	-.00004	.00080	.00256	-.00049
Stddev	.00024	.00000	.00002	.00049	.00062
%RSD	47.477	6.6491	3.0146	19.361	127.49

#1	.00067	-.00004	.00079	.00221	-.00005
#2	.00033	-.00004	.00082	.00291	-.00092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 22:14:37 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00044**
 Stddev .00060
 %RSD 137.06

#1 **-.00001**
 #2 **-.00087**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3162.2	3075.3	24329.	2910.9
Stddev	1.1	6.2	26.	12.4
%RSD	.03327	.20242	.10525	.42759
#1	3161.5	3070.9	24347.	2902.1
#2	3162.9	3079.7	24311.	2919.7

Sample Name: ccvl-4970377 Acquired: 11/2/2018 22:18:21 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00576	.15056	.01669	.01943	.00214
Stddev	.00014	.00322	.00020	.00043	.00002
%RSD	2.5152	2.1398	1.1746	2.2091	.88055

#1	.00566	.14828	.01655	.01912	.00215
#2	.00586	.15283	.01683	.01973	.00212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00229	.55306	.00212	.0171	.00415
Stddev	.00013	.01280	.00012	.0087	.00009
%RSD	5.7362	2.3140	5.8518	50.82	2.1554

#1	.00238	.56211	.00220	.0232	.00422
#2	.00219	.54401	.00203	.0109	.00409

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00363	.00830	.05240	.45391	.02740
Stddev	.00001	.00023	.00415	.01021	.00064
%RSD	.36588	2.7880	7.9268	2.2501	2.3384

#1	.00362	.00846	.05533	.44669	.02785
#2	.00364	.00814	.04946	.46114	.02695

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 22:18:21 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21016	.00306	.00960	.93666	.01058
Stddev	.00522	.00006	.00021	.00618	.00009
%RSD	2.4862	1.8189	2.1469	.65975	.82859

#1	.21385	.00310	.00974	.93229	.01064
#2	.20646	.00302	.00945	.94103	.01052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01097	.20780	.01690	.02014	.51149
Stddev	.00125	.00234	.00044	.00166	.01176
%RSD	11.424	1.1255	2.6093	8.2359	2.2996

#1	.01186	.20615	.01659	.01896	.50317
#2	.01008	.20945	.01721	.02131	.51981

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01033	.00505	.00557	.02221	.00416
Stddev	.00006	.00019	.00016	.00058	.00035
%RSD	.59190	3.6675	2.8569	2.5964	8.4561

#1	.01037	.00518	.00569	.02180	.00441
#2	.01028	.00491	.00546	.02262	.00391

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 22:18:21 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01107**
 Stddev .00042
 %RSD 3.8306

#1 **.01137**
 #2 **.01077**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3194.8	3124.0	24651.	2960.1
Stddev	1.9	3.6	77.	7.4
%RSD	.05968	.11375	.31115	.25153
#1	3193.4	3121.5	24597.	2954.8
#2	3196.1	3126.5	24706.	2965.3

Sample Name: 480-143503-b-1-a Acquired: 11/2/2018 22:22:02 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	-.00639	.00106	.59579	.17836
Stddev	.00046	.03461	.00231	.00071	.00016
%RSD	301.60	541.41	217.60	.11955	.08737

#1	.00017	.01808	-.00057	.59528	.17825
#2	-.00047	-.03087	.00270	.59629	.17847

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	145.21	.00047	.0027	.00199
Stddev	.00001	.15	.00024	.0573	.00025
%RSD	11.543	.10402	52.250	2125.	12.502

#1	.00010	145.10	.00064	.0432	.00216
#2	.00012	145.32	.00029	-.0378	.00181

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00101	.00022	21.688	33.947	.05551
Stddev	.00028	.00051	.055	.124	.00117
%RSD	28.189	229.69	.25414	.36513	2.1021

#1	.00121	.00059	21.649	33.859	.05468
#2	.00081	-.00014	21.727	34.035	.05633

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-1-a Acquired: 11/2/2018 22:22:02 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	75.137	.34173	-.00085	32.733	.01093
Stddev	.094	.00057	.00021	.004	.00009
%RSD	.12534	.16573	25.181	.01353	.78631

#1	75.071	.34133	-.00100	32.736	.01099
#2	75.204	.34213	-.00070	32.730	.01087

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00587	1.9684	-.00273	-.00223	10.268
Stddev	.00098	.0041	.00022	.00084	.032
%RSD	16.702	.20991	8.1137	37.511	.31219

#1	.00656	1.9655	-.00289	-.00282	10.245
#2	.00518	1.9713	-.00257	-.00164	10.291

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.23972	.00087	.00436	-.00081
Stddev	.00031	.00017	.00062	.00302	.00088
%RSD	18.054	.07096	71.135	69.444	109.35

#1	.00149	.23960	.00043	.00649	-.00018
#2	.00193	.23984	.00131	.00222	-.00143

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-1-a Acquired: 11/2/2018 22:22:02 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01308**
 Stddev .00019
 %RSD 1.4905

#1 **.01294**
 #2 **.01322**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3079.3	3018.5	24815.	2950.9
Stddev	.8	3.1	123.	12.9
%RSD	.02536	.10205	.49426	.43809

#1	3079.9	3020.7	24901.	2960.0
#2	3078.8	3016.3	24728.	2941.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.604%	94.383%	98.730%	97.829%
Range				

Sample Name: 480-143503-b-2-a Acquired: 11/2/2018 22:25:39 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00125	.00779	.00111	.29066	.23653
Stddev	.00001	.02319	.00041	.00020	.00091
%RSD	.83472	297.74	36.986	.07001	.38425

#1	-.00126	-.00861	.00082	.29081	.23717
#2	-.00124	.02419	.00140	.29052	.23588

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	154.57	.00037	-.0098	.00095
Stddev	.00000	.32	.00008	.0260	.00018
%RSD	2.4226	.20381	21.546	266.1	19.290

#1	.00013	154.80	.00031	-.0281	.00082
#2	.00013	154.35	.00043	.0086	.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00119	.00069	36.086	15.782	.00736
Stddev	.00061	.00136	.167	.011	.00145
%RSD	51.152	196.92	.46166	.06885	19.703

#1	.00162	.00165	36.204	15.790	.00633
#2	.00076	-.00027	35.968	15.774	.00838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-2-a Acquired: 11/2/2018 22:25:39 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	69.086	.36040	-.00096	23.614	.00288
Stddev	.407	.00162	.00014	.042	.00004
%RSD	.58869	.44903	14.583	.17619	1.4953

#1	69.373	.36154	-.00106	23.643	.00291
#2	68.798	.35925	-.00086	23.584	.00285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.98079	-.00418	-.00386	11.347
Stddev	.00127	.00243	.00158	.00044	.032
%RSD	60.713	.24810	37.818	11.406	.27765

#1	.00119	.97907	-.00529	-.00417	11.369
#2	.00299	.98251	-.00306	-.00355	11.325

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.30573	.00197	.00388	-.00079
Stddev	.00089	.00012	.00029	.00113	.00019
%RSD	733.80	.03828	14.832	29.115	23.923

#1	-.00075	.30581	.00217	.00308	-.00092
#2	.00051	.30565	.00176	.00468	-.00065

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-2-a Acquired: 11/2/2018 22:25:39 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02472**
 Stddev .00070
 %RSD 2.8187

#1 **.02522**
 #2 **.02423**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3082.5	3009.4	24686.	2938.5
Stddev	2.4	1.3	188.	2.6
%RSD	.07845	.04460	.75992	.08892

#1	3084.2	3010.3	24553.	2936.6
#2	3080.7	3008.4	24819.	2940.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.705%	94.099%	98.218%	97.419%
Range				

Sample Name: 480-143503-b-3-a Acquired: 11/2/2018 22:29:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00129	.02711	.00427	2.2005	.01640
Stddev	.00027	.01577	.00109	.0019	.00004
%RSD	21.052	58.171	25.504	.08619	.26747

#1	-.00148	.01596	.00504	2.2019	.01643
#2	-.00110	.03826	.00350	2.1992	.01637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	22.809	.00029	.0224	.00907
Stddev	.00014	.047	.00001	.0019	.00020
%RSD	1535.3	.20544	3.5691	8.529	2.2126

#1	-.00009	22.842	.00030	.0238	.00893
#2	.00011	22.776	.00028	.0211	.00921

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00203	.00620	10.222	175.87	.00742
Stddev	.00004	.00075	.025	.25	.00031
%RSD	1.7878	12.046	.24652	.13982	4.2208

#1	.00200	.00673	10.204	176.05	.00764
#2	.00205	.00568	10.240	175.70	.00720

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-3-a Acquired: 11/2/2018 22:29:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	86.778	.10107	.00083	377.56	.03467
Stddev	.208	.00010	.00002	.15	.00031
%RSD	.23917	.09894	1.9769	.03901	.89882

#1	86.925	.10100	.00084	377.45	.03445
#2	86.631	.10114	.00082	377.66	.03489

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00298	3.3645	-.00149	-.00490	1.0854
Stddev	.00153	.0038	.00269	.00142	.0024
%RSD	51.389	.11244	180.72	28.969	.21857

#1	.00407	3.3618	.00041	-.00390	1.0870
#2	.00190	3.3672	-.00340	-.00591	1.0837

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00303	.09786	.00374	.00572	-.00120
Stddev	.00040	.00009	.00039	.00020	.00010
%RSD	13.326	.09495	10.481	3.4338	8.2258

#1	.00331	.09792	.00347	.00558	-.00126
#2	.00274	.09779	.00402	.00586	-.00113

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-3-a Acquired: 11/2/2018 22:29:17 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.04350**
 Stddev .00022
 %RSD .51410

#1 **.04366**
 #2 **.04334**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3015.2	3038.5	25263.	2944.5
Stddev	4.1	.9	28.	11.0
%RSD	.13741	.03101	.11021	.37239

#1	3018.1	3037.8	25243.	2936.7
#2	3012.2	3039.1	25283.	2952.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.529%	95.008%	100.51%	97.618%
Range				

Sample Name: 480-143503-b-4-a Acquired: 11/2/2018 22:33:01 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00111	.07013	.00371	.58870	.10707
Stddev	.00008	.03330	.00243	.00052	.00005
%RSD	7.3386	47.478	65.697	.08831	.04877

#1	-.00105	.04659	.00543	.58907	.10703
#2	-.00117	.09368	.00198	.58833	.10710

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	109.78	.00050	-.0533	.00650
Stddev	.00009	.51	.00000	.0056	.00018
%RSD	91.185	.46360	.50190	10.47	2.8143

#1	.00003	110.14	.00050	-.0572	.00637
#2	.00015	109.42	.00050	-.0493	.00663

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00310	.04151	48.075	34.827	.13197
Stddev	.00024	.00021	.203	.042	.00052
%RSD	7.8449	.51610	.42243	.11975	.39239

#1	.00328	.04136	47.932	34.857	.13233
#2	.00293	.04166	48.219	34.798	.13160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-4-a Acquired: 11/2/2018 22:33:01 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.089	.32820	-.00007	30.373	.04242
Stddev	.031	.00052	.00003	.063	.00040
%RSD	.05628	.15923	35.089	.20895	.94101

#1	55.067	.32783	-.00009	30.417	.04271
#2	55.111	.32857	-.00006	30.328	.04214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00823	3.1960	-.00295	-.00536	8.5321
Stddev	.00088	.0076	.00294	.00155	.0205
%RSD	10.663	.23668	99.604	28.869	.23981

#1	.00885	3.1906	-.00503	-.00646	8.5176
#2	.00761	3.2013	-.00087	-.00427	8.5466

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00392	.13443	.00539	.00397	-.00060
Stddev	.00010	.00022	.00024	.00022	.00010
%RSD	2.5382	.16173	4.4229	5.4140	16.866

#1	.00399	.13458	.00522	.00382	-.00068
#2	.00385	.13427	.00556	.00412	-.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143503-b-4-a Acquired: 11/2/2018 22:33:01 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.23925**
 Stddev .00128
 %RSD .53516

#1 **.23834**
 #2 **.24015**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3093.5	3040.4	24740.	2966.6
Stddev	4.8	4.6	27.	3.0
%RSD	.15673	.14969	.11057	.10016

#1	3090.1	3037.2	24760.	2964.5
#2	3097.0	3043.6	24721.	2968.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.06%	95.068%	98.434%	98.350%
Range				

Sample Name: 480-143478-d-1-a Acquired: 11/2/2018 22:36:39 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.00288	.00058	.03460	.05176
Stddev	.00168	.03203	.00105	.00021	.00009
%RSD	489.47	1111.1	180.97	.60859	.16768

#1	.00084	-.01977	.00133	.03475	.05182
#2	-.00153	.02553	-.00016	.03446	.05169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	110.01	.00043	.0178	.00010
Stddev	.00000	.34	.00016	.0116	.00003
%RSD	5.0922	.31219	36.806	65.03	32.324

#1	.00008	109.77	.00032	.0260	.00008
#2	.00008	110.25	.00054	.0096	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00234	-.00062	.00676	.78923	.00351
Stddev	.00029	.00001	.00187	.04013	.00079
%RSD	12.450	1.9674	27.735	5.0845	22.386

#1	.00255	-.00061	.00808	.81761	.00407
#2	.00213	-.00063	.00543	.76086	.00296

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-a Acquired: 11/2/2018 22:36:39 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	44.662	.04148	.00058	4.4754	.00751
Stddev	.004	.00015	.00003	.0233	.00016
%RSD	.00862	.36215	6.0027	.52014	2.1312

#1	44.665	.04159	.00056	4.4589	.00739
#2	44.659	.04138	.00060	4.4918	.00762

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00031	22.759	-.00318	-.00610	5.3096
Stddev	.00111	.064	.00295	.00286	.0534
%RSD	351.43	.28135	92.701	46.953	1.0066

#1	-.00110	22.714	-.00526	-.00812	5.3474
#2	.00047	22.805	-.00110	-.00407	5.2718

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.13672	.00047	.00413	-.00159
Stddev	.00038	.00041	.00090	.00142	.00041
%RSD	156.98	.30223	189.60	34.391	26.040

#1	.00051	.13642	.00111	.00514	-.00130
#2	-.00003	.13701	-.00016	.00313	-.00188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-a Acquired: 11/2/2018 22:36:39 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00667**
 Stddev .00020
 %RSD 3.0324

#1 **.00653**
 #2 **.00682**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3136.0	3050.7	24863.	2979.7
Stddev	5.6	9.4	37.	13.3
%RSD	.17715	.30972	.14793	.44594

#1	3139.9	3057.4	24889.	2989.1
#2	3132.1	3044.0	24837.	2970.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.44%	95.391%	98.923%	98.786%
Range				

Sample Name: 480-143478-d-1-aSD@5 Acquired: 11/2/2018 22:40:18 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	-.05427	.00018	.00712	.01032
Stddev	.00033	.02088	.00042	.00050	.00001
%RSD	49.121	38.464	236.87	6.9959	.05445

#1	-.00044	-.06904	.00047	.00747	.01032
#2	-.00091	-.03951	-.00012	.00677	.01032

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	22.364	.00002	-.0291	.00015
Stddev	.00004	.060	.00012	.0046	.00005
%RSD	45.803	.26808	646.03	15.82	31.886

#1	.00006	22.322	-.00006	-.0324	.00018
#2	.00011	22.406	.00010	-.0259	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	-.00220	-.00178	.11677	-.00112
Stddev	.00036	.00032	.00317	.01729	.00097
%RSD	117.89	14.452	178.44	14.808	86.637

#1	.00005	-.00197	.00047	.12900	-.00180
#2	.00056	-.00242	-.00402	.10455	-.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-aSD@5 Acquired: 11/2/2018 22:40:18 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.8027	.00835	-.00037	.82260	.00183
Stddev	.0204	.00008	.00001	.01901	.00029
%RSD	.23124	.93757	2.7528	2.3112	16.082

#1	8.7883	.00829	-.00037	.83604	.00204
#2	8.8171	.00840	-.00036	.80916	.00162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00038	4.3783	-.00434	-.00506	1.0163
Stddev	.00022	.0041	.00028	.00390	.0232
%RSD	57.615	.09434	6.4154	77.058	2.2832

#1	.00022	4.3754	-.00414	-.00230	1.0327
#2	.00053	4.3812	-.00454	-.00782	.99985

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.02700	.00008	.00323	-.00111
Stddev	.00009	.00002	.00044	.00135	.00004
%RSD	797.57	.07976	574.90	41.794	3.5525

#1	-.00005	.02698	.00039	.00228	-.00113
#2	.00007	.02701	-.00024	.00419	-.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-aSD@5 Acquired: 11/2/2018 22:40:18 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00163**
 Stddev .00045
 %RSD 27.564

#1 **.00131**
 #2 **.00195**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.9	3094.9	24530.	2941.3
Stddev	4.3	4.6	17.	14.4
%RSD	.13417	.14754	.06832	.48988

#1	3183.9	3098.2	24518.	2951.5
#2	3177.9	3091.7	24542.	2931.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.89%	96.774%	97.597%	97.511%
Range				

Sample Name: 480-143478-d-1-aPDS Acquired: 11/2/2018 22:43:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05521	10.614	.22284	.24209	.26003
Stddev	.00095	.043	.00162	.00004	.00063
%RSD	1.7242	.40210	.72710	.01831	.24079

#1	.05589	10.644	.22169	.24212	.25959
#2	.05454	10.584	.22399	.24206	.26047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21278	118.77	.22674	.0413	.20305
Stddev	.00050	.50	.00036	.0271	.00036
%RSD	.23369	.41717	.16065	65.65	.17951

#1	.21314	119.12	.22700	.0605	.20330
#2	.21243	118.42	.22649	.0221	.20279

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21021	.21432	10.925	11.137	.20622
Stddev	.00044	.00000	.001	.004	.00030
%RSD	.20962	.00046	.01211	.03584	.14414

#1	.21052	.21432	10.924	11.140	.20643
#2	.20990	.21432	10.926	11.134	.20601

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-aPDS Acquired: 11/2/2018 22:43:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	54.799	.25171	.20336	14.279	.21481
Stddev	.104	.00031	.00101	.030	.00055
%RSD	.18982	.12513	.49483	.21122	.25391

#1	54.726	.25149	.20407	14.258	.21442
#2	54.873	.25193	.20265	14.300	.21520

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21122	33.577	.19093	.21226	16.031
Stddev	.00119	.053	.00284	.00297	.049
%RSD	.56507	.15708	1.4863	1.3993	.30263

#1	.21037	33.614	.19294	.21016	16.066
#2	.21206	33.540	.18893	.21436	15.997

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21915	.34595	.21663	.20170	.20595
Stddev	.00042	.00014	.00083	.00073	.00122
%RSD	.19083	.04114	.38495	.36124	.59220

#1	.21886	.34585	.21604	.20222	.20509
#2	.21945	.34605	.21722	.20119	.20681

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-aPDS Acquired: 11/2/2018 22:43:58 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22043**
 Stddev .00004
 %RSD .01865

#1 **.22046**
 #2 **.22040**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3107.7	3028.9	24685.	2956.1
Stddev	.7	1.2	4.	7.7
%RSD	.02384	.04061	.01607	.26018

#1	3107.2	3028.1	24688.	2950.7
#2	3108.2	3029.8	24683.	2961.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.52%	94.710%	98.216%	98.003%
Range				

Sample Name: 480-143478-d-1-b ms Acquired: 11/2/2018 22:47:29 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05347	10.398	.21648	.23626	.25855
Stddev	.00085	.005	.00028	.00033	.00043
%RSD	1.5806	.05190	.13150	.13756	.16606

#1	.05407	10.394	.21628	.23603	.25886
#2	.05287	10.402	.21668	.23649	.25825

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20581	127.57	.21778	-.0313	.19514
Stddev	.00043	.13	.00016	.0730	.00005
%RSD	.21077	.10369	.07525	233.3	.02551

#1	.20611	127.66	.21790	.0203	.19518
#2	.20550	127.48	.21766	-.0829	.19511

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20178	.20488	10.461	10.864	.20194
Stddev	.00125	.00068	.012	.036	.00027
%RSD	.61886	.32997	.11393	.33547	.13573

#1	.20266	.20536	10.469	10.838	.20175
#2	.20090	.20440	10.452	10.890	.20214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-b ms Acquired: 11/2/2018 22:47:29 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	58.299	.24518	.19869	14.602	.20691
Stddev	.126	.00009	.00078	.019	.00056
%RSD	.21554	.03834	.39392	.12679	.27065

#1	58.388	.24511	.19925	14.615	.20652
#2	58.211	.24525	.19814	14.588	.20731

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20280	35.250	.20962	.20532	15.858
Stddev	.00073	.016	.00063	.00238	.021
%RSD	.36030	.04480	.30178	1.1579	.13194

#1	.20229	35.261	.20917	.20700	15.843
#2	.20332	35.239	.21006	.20364	15.873

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20884	.35118	.20738	.19416	.19792
Stddev	.00117	.00049	.00078	.00066	.00011
%RSD	.56101	.13910	.37619	.34065	.05517

#1	.20966	.35084	.20793	.19463	.19799
#2	.20801	.35153	.20683	.19369	.19784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-b ms Acquired: 11/2/2018 22:47:29 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21125**
 Stddev .00158
 %RSD .74830

#1 **.21237**
 #2 **.21013**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3103.2	3020.8	24648.	2963.7
Stddev	4.9	6.3	30.	5.1
%RSD	.15726	.20832	.12085	.17087

#1	3106.6	3025.2	24627.	2967.3
#2	3099.7	3016.3	24669.	2960.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.38%	94.455%	98.068%	98.256%
Range				

Sample Name: 480-143478-d-1-c msd Acquired: 11/2/2018 22:51:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05274	10.291	.22166	.23045	.25498
Stddev	.00006	.019	.00108	.00143	.00068
%RSD	.10655	.18500	.48813	.62065	.26851

#1	.05278	10.278	.22243	.23146	.25450
#2	.05270	10.305	.22090	.22943	.25547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20834	123.24	.22175	.0154	.19800
Stddev	.00091	1.22	.00025	.0099	.00000
%RSD	.43842	.98927	.11303	64.29	.00101

#1	.20769	122.38	.22157	.0225	.19800
#2	.20898	124.10	.22193	.0084	.19800

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20628	.20722	10.609	10.872	.20117
Stddev	.00037	.00128	.022	.100	.00079
%RSD	.18057	.61699	.21044	.92344	.39245

#1	.20601	.20812	10.593	10.801	.20173
#2	.20654	.20631	10.624	10.943	.20061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-c msd Acquired: 11/2/2018 22:51:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.006	.24796	.19826	14.358	.21078
Stddev	.149	.00028	.00120	.143	.00122
%RSD	.26185	.11387	.60681	.99922	.57778

#1	56.901	.24776	.19911	14.257	.20992
#2	57.112	.24816	.19741	14.460	.21164

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20508	34.617	.21158	.21089	13.148
Stddev	.00051	.031	.00105	.00055	.001
%RSD	.25087	.08901	.49820	.26192	.00734

#1	.20544	34.639	.21232	.21050	13.147
#2	.20472	34.595	.21083	.21128	13.149

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20858	.34404	.21051	.19808	.20155
Stddev	.00040	.00193	.00050	.00055	.00074
%RSD	.19183	.56141	.23909	.27665	.36581

#1	.20830	.34267	.21015	.19847	.20207
#2	.20886	.34540	.21086	.19770	.20103

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-1-c msd Acquired: 11/2/2018 22:51:00 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21809**
 Stddev .00116
 %RSD .53168

#1 **.21728**
 #2 **.21891**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.0	3027.2	24637.	2957.3
Stddev	4.1	2.2	82.	27.9
%RSD	.13218	.07123	.33482	.94368

#1	3107.9	3028.7	24695.	2977.1
#2	3102.1	3025.7	24579.	2937.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.43%	94.656%	98.023%	98.044%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 22:54:33 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56495	25.977	.53075	.51023	.51460
Stddev	.00280	.098	.00134	.00019	.00299
%RSD	.49627	.37746	.25245	.03743	.58147

#1	.56297	26.046	.53170	.51037	.51248
#2	.56694	25.907	.52980	.51010	.51671

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51302	26.795	.53268	-.0272	.50636
Stddev	.00315	.066	.00113	.0098	.00121
%RSD	.61433	.24713	.21251	35.99	.23986

#1	.51525	26.842	.53188	-.0341	.50550
#2	.51079	26.748	.53348	-.0203	.50722

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51650	.52830	26.703	25.138	.50655
Stddev	.00353	.00248	.068	.132	.00320
%RSD	.68416	.46950	.25306	.52502	.63223

#1	.51401	.52654	26.751	25.231	.50882
#2	.51900	.53005	26.655	25.044	.50429

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 22:54:33 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.141	.53429	.50808	25.419	.50195
Stddev	.216	.00380	.00038	.136	.00109
%RSD	.82574	.71051	.07529	.53512	.21630

#1	25.988	.53160	.50781	25.515	.50118
#2	26.294	.53697	.50835	25.323	.50272

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50972	27.231	.52238	.52378	26.574
Stddev	.00043	.015	.00058	.00184	.108
%RSD	.08338	.05590	.11147	.35132	.40569

#1	.50942	27.220	.52197	.52508	26.650
#2	.51002	27.242	.52279	.52247	26.498

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53231	.53210	.53183	.48753	.51235
Stddev	.00007	.00270	.00195	.00017	.00204
%RSD	.01299	.50820	.36728	.03439	.39742

#1	.53236	.53401	.53045	.48765	.51091
#2	.53226	.53019	.53322	.48741	.51379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 22:54:33 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.52246**
 Stddev .00534
 %RSD 1.0216

#1 **.51869**
 #2 **.52624**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.9	3073.5	24581.	2899.6
Stddev	.6	1.3	206.	1.1
%RSD	.01840	.04075	.83789	.03851
#1	3153.5	3074.4	24726.	2900.4
#2	3154.3	3072.6	24435.	2898.8

Sample Name: ccb-4975309 Acquired: 11/2/2018 22:57:59 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	-.04303	-.00009	.00034	.00009
Stddev	.00014	.02789	.00062	.00044	.00004
%RSD	15.884	64.819	709.57	132.27	40.127

#1	-.00096	-.06275	-.00053	.00065	.00007
#2	-.00076	-.02331	.00035	.00002	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	-.00433	.00024	.0375	-.00001
Stddev	.00011	.00566	.00013	.0135	.00017
%RSD	112.33	130.65	53.671	35.97	2702.1

#1	.00017	-.00834	.00034	.0279	-.00012
#2	.00002	-.00033	.00015	.0470	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.00206	.00003	-.03605	.00116
Stddev	.00073	.00001	.00138	.01128	.00132
%RSD	305.47	.61576	4185.8	31.281	114.06

#1	.00075	-.00206	-.00094	-.02807	.00210
#2	-.00028	-.00207	.00101	-.04402	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 22:57:59 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00311	.00011	.00101	-.02561	.00014
Stddev	.00246	.00004	.00045	.00314	.00004
%RSD	79.208	37.154	44.495	12.268	27.324

#1	.00485	.00008	.00069	-.02339	.00011
#2	.00137	.00014	.00133	-.02783	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00066	-.00286	-.00275	-.00105	-.02308
Stddev	.00080	.00017	.00066	.00049	.01296
%RSD	121.90	6.0942	24.014	46.400	56.152

#1	-.00009	-.00274	-.00229	-.00071	-.01391
#2	-.00123	-.00298	-.00322	-.00140	-.03224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00000	.00046	-.00055	-.00114
Stddev	.00028	.00008	.00066	.00079	.00033
%RSD	163.81	1686.0	142.87	143.65	29.352

#1	.00037	.00006	-.00000	.00001	-.00090
#2	-.00003	-.00005	.00093	-.00111	-.00137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 22:57:59 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00001**
 Stddev .00007
 %RSD 508.28

#1 -.00004
 #2 .00006

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3150.3	3079.2	24322.	2894.6
Stddev	.3	3.8	144.	13.3
%RSD	.01013	.12441	.59162	.45776
#1	3150.1	3076.5	24220.	2885.2
#2	3150.5	3081.9	24424.	2903.9

Sample Name: ccvl-4970377 Acquired: 11/2/2018 23:01:43 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00533	.17670	.01717	.01926	.00206
Stddev	.00030	.02860	.00018	.00030	.00003
%RSD	5.6405	16.184	1.0609	1.5530	1.6877

#1	.00512	.19692	.01704	.01905	.00209
#2	.00554	.15648	.01730	.01947	.00204

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00236	.54978	.00206	.0292	.00431
Stddev	.00007	.00592	.00006	.0039	.00008
%RSD	2.9482	1.0773	3.0986	13.40	1.9376

#1	.00231	.54560	.00202	.0319	.00425
#2	.00240	.55397	.00211	.0264	.00437

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00373	.00828	.05026	.46683	.02866
Stddev	.00014	.00040	.00176	.04825	.00080
%RSD	3.6600	4.8782	3.5081	10.335	2.7818

#1	.00383	.00800	.05151	.43271	.02809
#2	.00364	.00857	.04901	.50094	.02922

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 23:01:43 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21210	.00310	.00943	.95093	.01054
Stddev	.00212	.00001	.00013	.00497	.00018
%RSD	.99988	.37435	1.3418	.52233	1.7360

#1	.21360	.00309	.00934	.95444	.01042
#2	.21060	.00310	.00952	.94742	.01067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01192	.20972	.01842	.02019	.50374
Stddev	.00076	.00074	.00037	.00064	.00994
%RSD	6.3745	.35272	1.9997	3.1618	1.9728

#1	.01246	.21024	.01816	.02065	.51077
#2	.01139	.20919	.01868	.01974	.49671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01007	.00515	.00504	.02135	.00450
Stddev	.00020	.00001	.00007	.00039	.00007
%RSD	1.9888	.17478	1.4672	1.8087	1.5643

#1	.01021	.00516	.00509	.02107	.00455
#2	.00993	.00515	.00499	.02162	.00445

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 23:01:43 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01116**
 Stddev .00038
 %RSD 3.4137

#1 **.01143**
 #2 **.01089**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3201.8	3139.1	24723.	2935.8
Stddev	7.3	.0	10.	17.4
%RSD	.22746	.00133	.04105	.59190
#1	3206.9	3139.2	24716.	2948.1
#2	3196.6	3139.1	24730.	2923.5

Sample Name: 480-143478-c-2-a Acquired: 11/2/2018 23:05:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.13053	.00286	.09271	.10860
Stddev	.00067	.00834	.00030	.00036	.00022
%RSD	220.51	6.3863	10.532	.39321	.20646

#1	.00017	.13642	.00264	.09297	.10844
#2	-.00078	.12463	.00307	.09245	.10876

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	148.19	.00028	.0021	.00047
Stddev	.00009	.66	.00005	.0123	.00001
%RSD	86.431	.44579	18.184	573.9	1.0763

#1	.00004	147.73	.00032	-.0066	.00047
#2	.00016	148.66	.00024	.0108	.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00241	.32973	5.5658	.00668
Stddev	.00015	.00028	.00385	.0604	.00184
%RSD	204.68	11.777	1.1676	1.0858	27.554

#1	-.00003	.00261	.32701	5.5231	.00798
#2	.00018	.00221	.33245	5.6086	.00538

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-c-2-a Acquired: 11/2/2018 23:05:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	53.459	.33010	-.00004	26.752	.00253
Stddev	.222	.00071	.00020	.090	.00020
%RSD	.41514	.21385	500.08	.33710	7.9243

#1	53.302	.32960	-.00018	26.688	.00239
#2	53.616	.33060	.00010	26.816	.00267

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00172	76.770	-.00298	-.00723	7.1952
Stddev	.00067	.071	.00151	.00056	.0236
%RSD	38.698	.09284	50.736	7.7853	.32792

#1	.00220	76.719	-.00405	-.00763	7.2119
#2	.00125	76.820	-.00191	-.00683	7.1785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.15784	.00588	.00427	-.00094
Stddev	.00021	.00069	.00107	.00094	.00054
%RSD	65.339	.43729	18.183	22.020	57.629

#1	-.00048	.15735	.00663	.00494	-.00056
#2	-.00018	.15833	.00512	.00361	-.00133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-c-2-a Acquired: 11/2/2018 23:05:26 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00813**
 Stddev .00047
 %RSD 5.7643

#1 **.00846**
 #2 **.00780**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3121.3	3042.3	24884.	2957.3
Stddev	7.4	8.0	124.	13.0
%RSD	.23635	.26403	.49917	.43810

#1	3126.5	3048.0	24972.	2966.5
#2	3116.1	3036.6	24796.	2948.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.96%	95.128%	99.006%	98.044%
Range				

Sample Name: 480-143478-d-4-a Acquired: 11/2/2018 23:09:04 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00132	1.0511	.06905	.11500	.10959
Stddev	.00125	.0269	.00094	.00028	.00003
%RSD	95.016	2.5592	1.3574	.24050	.02815

#1	-.00221	1.0321	.06838	.11519	.10957
#2	-.00043	1.0701	.06971	.11480	.10961

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	120.63	.00019	.0221	.00110
Stddev	.00002	.07	.00003	.0241	.00007
%RSD	17.333	.06161	15.341	109.2	6.1481

#1	-.00010	120.57	.00021	.0050	.00105
#2	-.00008	120.68	.00017	.0391	.00115

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00264	.00456	16.558	7.9653	.00600
Stddev	.00021	.00047	.004	.0607	.00126
%RSD	7.7642	10.355	.02267	.76263	21.030

#1	.00250	.00490	16.561	7.9223	.00690
#2	.00279	.00423	16.555	8.0082	.00511

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-4-a Acquired: 11/2/2018 23:09:04 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	34.504	.34676	.00114	14.127	.00342
Stddev	.114	.00079	.00003	.004	.00024
%RSD	.32919	.22851	2.6510	.03075	7.0367

#1	34.584	.34732	.00112	14.130	.00325
#2	34.424	.34620	.00117	14.124	.00359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00456	57.191	-.00234	-.00865	12.320
Stddev	.00062	.067	.00035	.00281	.003
%RSD	13.520	.11747	14.816	32.512	.02555

#1	.00499	57.143	-.00209	-.01064	12.318
#2	.00412	57.238	-.00258	-.00666	12.323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00091	.15484	.03570	.00316	.00182
Stddev	.00006	.00019	.00037	.00152	.00082
%RSD	6.1767	.12591	1.0303	48.163	44.959

#1	.00087	.15470	.03596	.00208	.00239
#2	.00095	.15498	.03544	.00424	.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143478-d-4-a Acquired: 11/2/2018 23:09:04 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01838**
 Stddev .00035
 %RSD 1.9220

#1 **.01813**
 #2 **.01863**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3129.1	3036.6	24700.	2957.3
Stddev	.8	2.9	33.	15.5
%RSD	.02547	.09450	.13280	.52246

#1	3129.7	3038.6	24677.	2946.4
#2	3128.6	3034.6	24723.	2968.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.22%	94.949%	98.274%	98.043%
Range				

Sample Name: 480-143497-e-1-b Acquired: 11/2/2018 23:12:42 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00067	-.03262	.00133	.04090	.04295
Stddev	.00067	.02281	.00060	.00035	.00012
%RSD	100.87	69.938	45.118	.86197	.26846

#1	-.00114	-.04875	.00175	.04065	.04304
#2	-.00019	-.01649	.00090	.04114	.04287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	123.50	.00023	.0187	.00038
Stddev	.00009	.91	.00006	.0837	.00016
%RSD	39.361	.73625	26.600	447.7	43.399

#1	.00030	124.15	.00018	-.0405	.00026
#2	.00017	122.86	.00027	.0779	.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	-.00009	.01847	1.9431	.00518
Stddev	.00085	.00146	.00532	.0396	.00129
%RSD	215.13	1539.9	28.823	2.0357	24.957

#1	-.00021	-.00113	.02223	1.9711	.00610
#2	.00100	.00094	.01470	1.9152	.00427

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-1-b Acquired: 11/2/2018 23:12:42 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.642	.02011	-.00031	10.086	.00121
Stddev	.213	.00033	.00005	.007	.00011
%RSD	.38290	1.6510	16.096	.07374	8.8467

#1	55.793	.02035	-.00035	10.091	.00129
#2	55.491	.01988	-.00027	10.081	.00114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	68.644	-.00474	-.00235	7.0718
Stddev	.00100	.101	.00075	.00458	.0060
%RSD	275.80	.14687	15.714	195.07	.08412

#1	.00107	68.573	-.00422	.00089	7.0760
#2	-.00034	68.715	-.00527	-.00558	7.0676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.12781	.00028	.00392	-.00087
Stddev	.00033	.00025	.00050	.00045	.00052
%RSD	132.59	.19207	183.00	11.407	60.087

#1	.00002	.12798	.00063	.00360	-.00050
#2	.00048	.12764	-.00008	.00424	-.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-1-b Acquired: 11/2/2018 23:12:42 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00485**
 Stddev .00089
 %RSD 18.458

#1 **.00421**
 #2 **.00548**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3124.7	3039.3	24656.	2943.2
Stddev	13.4	9.0	84.	1.3
%RSD	.42763	.29501	.34174	.04308

#1	3134.1	3045.6	24596.	2942.3
#2	3115.2	3032.9	24715.	2944.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.07%	95.033%	98.098%	97.574%
Range				

Sample Name: 480-143497-e-2-b Acquired: 11/2/2018 23:16:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.07045	.00382	.21377	.08738
Stddev	.00091	.03889	.00133	.00031	.00000
%RSD	286.83	55.206	34.874	.14642	.00169

#1	-.00033	-.09795	.00288	.21399	.08738
#2	.00096	-.04295	.00476	.21355	.08738

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	246.64	.00039	.0290	.00054
Stddev	.00013	1.08	.00012	.0245	.00019
%RSD	550.03	.43884	29.700	84.68	35.281

#1	.00011	247.40	.00047	.0463	.00067
#2	-.00007	245.87	.00031	.0116	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	-.00189	16.461	16.039	.01112
Stddev	.00033	.00090	.071	.038	.00037
%RSD	76.490	47.923	.43074	.23639	3.3137

#1	.00020	-.00252	16.511	16.065	.01086
#2	.00067	-.00125	16.411	16.012	.01138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-2-b Acquired: 11/2/2018 23:16:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	101.80	.25282	-.00021	18.795	.00156
Stddev	.36	.00121	.00023	.036	.00005
%RSD	.35260	.47767	107.17	.19414	3.2322

#1	101.55	.25196	-.00005	18.769	.00152
#2	102.06	.25367	-.00038	18.821	.00160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	F 184.73	-.00157	-.00336	10.287
Stddev	.00009	.48	.00054	.00247	.047
%RSD	12.702	.25722	34.163	73.597	.45826

#1	.00077	185.07	-.00119	-.00161	10.321
#2	.00064	184.39	-.00195	-.00511	10.254

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.41030	-.00029	.00395	-.00194
Stddev	.00026	.00040	.00028	.00196	.00001
%RSD	257.42	.09756	95.439	49.691	.73727

#1	.00028	.41058	-.00049	.00534	-.00195
#2	-.00008	.41002	-.00009	.00256	-.00193

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-2-b Acquired: 11/2/2018 23:16:21 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00446**
 Stddev .00041
 %RSD 9.2655

#1 **.00476**
 #2 **.00417**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3051.2	2984.0	24793.	2906.7
Stddev	7.4	2.9	139.	28.2
%RSD	.24185	.09752	.55947	.97068

#1	3056.4	2986.1	24891.	2886.7
#2	3046.0	2982.0	24695.	2926.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.694%	93.305%	98.645%	96.364%
Range				

Sample Name: 480-143497-e-3-b Acquired: 11/2/2018 23:20:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00086	-.02372	.01949	.17851	.16488
Stddev	.00035	.03327	.00118	.00033	.00079
%RSD	40.958	140.25	6.0757	.18274	.48101

#1	-.00061	-.04725	.02033	.17828	.16432
#2	-.00111	-.00020	.01866	.17874	.16544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	194.55	.00015	-.0222	.00023
Stddev	.00012	.10	.00000	.0033	.00024
%RSD	324.12	.05221	3.0171	15.02	102.88

#1	.00005	194.62	.00014	-.0199	.00040
#2	-.00012	194.47	.00015	-.0246	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00228	12.596	5.0898	.01041
Stddev	.00025	.00073	.004	.0030	.00246
%RSD	744.04	31.943	.02930	.05923	23.653

#1	-.00021	-.00280	12.599	5.0920	.00867
#2	.00014	-.00177	12.594	5.0877	.01216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-3-b Acquired: 11/2/2018 23:20:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	66.183	.65958	-.00052	18.343	.00118
Stddev	.199	.00089	.00000	.010	.00001
%RSD	.30110	.13494	.63248	.05496	.54355

#1	66.042	.65895	-.00053	18.336	.00118
#2	66.324	.66021	-.00052	18.350	.00117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00203	F 95.517	-.00281	-.00550	8.6021
Stddev	.00051	.023	.00143	.00232	.0465
%RSD	25.262	.02435	50.995	42.162	.54044

#1	.00240	95.500	-.00180	-.00714	8.6350
#2	.00167	95.533	-.00382	-.00386	8.5693

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.24540	.00062	.00437	-.00126
Stddev	.00035	.00026	.00005	.00085	.00046
%RSD	97.894	.10399	7.9469	19.349	36.885

#1	.00060	.24522	.00065	.00377	-.00158
#2	.00011	.24558	.00058	.00497	-.00093

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-3-b Acquired: 11/2/2018 23:20:00 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00363**
 Stddev .00067
 %RSD 18.314

#1 **.00410**
 #2 **.00316**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3079.0	3015.2	24920.	2922.0
Stddev	3.1	4.5	64.	4.4
%RSD	.10200	.14869	.25660	.14981

#1	3081.2	3018.4	24966.	2918.9
#2	3076.8	3012.1	24875.	2925.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.594%	94.282%	99.150%	96.872%
Range				

Sample Name: 480-143497-e-4-b Acquired: 11/2/2018 23:23:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00180	1.7519	.00263	.49113	.05190
Stddev	.00016	.0182	.00296	.00034	.00009
%RSD	8.8590	1.0402	112.48	.06845	.18131

#1	-.00169	1.7648	.00054	.49089	.05196
#2	-.00191	1.7390	.00472	.49136	.05183

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	501.15	.00070	-.0442	.00934
Stddev	.00011	1.59	.00007	.0410	.00006
%RSD	67.480	.31722	9.6865	92.80	.69141

#1	.00023	502.27	.00065	-.0732	.00939
#2	.00008	500.02	.00075	-.0152	.00930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00429	.00298	3.0822	19.681	.14367
Stddev	.00023	.00042	.0098	.055	.00058
%RSD	5.3275	14.226	.31647	.27913	.40185

#1	.00413	.00328	3.0753	19.642	.14326
#2	.00445	.00268	3.0891	19.720	.14407

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-4-b Acquired: 11/2/2018 23:23:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	307.32	1.2486	.00458	343.73	.03537
Stddev	.30	.0002	.00015	1.19	.00005
%RSD	.09838	.01254	3.2693	.34751	.13795

#1	307.10	1.2485	.00447	344.57	.03533
#2	307.53	1.2487	.00468	342.88	.03540

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00383	F 483.74	-.00293	-.00457	9.9623
Stddev	.00011	.98	.00136	.00349	.0163
%RSD	2.8051	.20168	46.389	76.531	.16316

#1	.00375	483.05	-.00197	-.00704	9.9508
#2	.00390	484.43	-.00389	-.00209	9.9738

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00048	4.9148	.04690	.00582	.00084
Stddev	.00059	.0125	.00029	.00137	.00021
%RSD	122.79	.25449	.62242	23.580	24.934

#1	.00090	4.9237	.04669	.00680	.00099
#2	.00006	4.9060	.04711	.00485	.00069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143497-e-4-b Acquired: 11/2/2018 23:23:38 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01016**
 Stddev .00007
 %RSD .64350

#1 **.01020**
 #2 **.01011**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.6	2872.1	24318.	2829.5
Stddev	1.1	4.2	58.	14.1
%RSD	.03927	.14547	.23818	.49778

#1	2845.4	2875.1	24359.	2819.5
#2	2843.9	2869.2	24277.	2839.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	92.013%	89.807%	96.755%	93.805%
Range				

Sample Name: 480-143556-f-1-b Acquired: 11/2/2018 23:27:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00052	.07625	.00167	.03662	.11049
Stddev	.00075	.00223	.00073	.00006	.00014
%RSD	142.88	2.9227	43.777	.15233	.12496

#1	-.00105	.07468	.00219	.03658	.11040
#2	.00001	.07783	.00115	.03666	.11059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	147.35	.00033	.0100	.00026
Stddev	.00018	.34	.00010	.0128	.00007
%RSD	150.69	.22960	31.568	127.2	27.422

#1	-.00025	147.58	.00040	.0010	.00021
#2	.00001	147.11	.00026	.0190	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00115	-.00191	2.9932	3.1804	.00594
Stddev	.00046	.00101	.0047	.0549	.00132
%RSD	39.649	52.873	.15873	1.7272	22.235

#1	.00147	-.00120	2.9898	3.2193	.00688
#2	.00083	-.00263	2.9966	3.1416	.00501

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143556-f-1-b Acquired: 11/2/2018 23:27:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.794	.43072	.00041	5.5618	.00139
Stddev	.011	.00052	.00007	.0206	.00012
%RSD	.01921	.12088	17.243	.37090	8.8055

#1	57.802	.43109	.00046	5.5764	.00148
#2	57.786	.43035	.00036	5.5472	.00131

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00234	48.045	-.00250	-.00487	6.3076
Stddev	.00146	.038	.00344	.00093	.0188
%RSD	62.585	.07894	137.52	19.157	.29855

#1	.00337	48.018	-.00494	-.00553	6.3209
#2	.00130	48.072	-.00007	-.00421	6.2943

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.19372	.00349	.00427	-.00084
Stddev	.00044	.00023	.00032	.00055	.00036
%RSD	410.52	.12040	9.2310	12.908	42.585

#1	-.00021	.19389	.00326	.00466	-.00059
#2	.00042	.19356	.00371	.00388	-.00110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143556-f-1-b Acquired: 11/2/2018 23:27:21 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00345**
 Stddev .00124
 %RSD 35.946

#1 **.00432**
 #2 **.00257**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3101.4	3042.1	24877.	2891.0
Stddev	7.4	5.2	43.	18.4
%RSD	.24006	.17010	.17118	.63550

#1	3096.2	3038.4	24847.	2878.0
#2	3106.7	3045.7	24907.	2904.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.32%	95.121%	98.977%	95.844%
Range				

Sample Name: 480-143556-f-2-b Acquired: 11/2/2018 23:31:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00159	.92082	.00554	.50460	.10684
Stddev	.00031	.02685	.00155	.00011	.00011
%RSD	19.768	2.9153	28.058	.02143	.10574

#1	-.00181	.93980	.00444	.50468	.10692
#2	-.00137	.90184	.00664	.50453	.10676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	153.40	.00042	.0426	.00099
Stddev	.00003	.33	.00003	.0061	.00010
%RSD	23.923	.21810	7.7483	14.29	9.8972

#1	.00010	153.64	.00040	.0469	.00092
#2	.00014	153.16	.00045	.0383	.00106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00171	.00198	12.178	15.656	.02397
Stddev	.00012	.00050	.028	.016	.00157
%RSD	6.7536	25.219	.22687	.09899	6.5362

#1	.00179	.00163	12.197	15.667	.02287
#2	.00162	.00234	12.158	15.645	.02508

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143556-f-2-b Acquired: 11/2/2018 23:31:00 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	82.451	.24999	.00047	36.251	.00418
Stddev	.010	.00026	.00003	.112	.00063
%RSD	.01249	.10264	5.5008	.30891	15.114

#1	82.444	.24981	.00049	36.330	.00373
#2	82.458	.25018	.00046	36.172	.00462

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00609	F 96.400	-.00456	-.00559	11.642
Stddev	.00178	.005	.00019	.00196	.030
%RSD	29.297	.00485	4.0850	35.126	.25593

#1	.00735	96.397	-.00442	-.00420	11.663
#2	.00483	96.403	-.00469	-.00698	11.621

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00032	.33560	.02635	.00327	.00094
Stddev	.00015	.00101	.00147	.00088	.00054
%RSD	45.763	.30056	5.5724	27.027	57.679

#1	-.00021	.33631	.02739	.00390	.00132
#2	-.00042	.33489	.02531	.00265	.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143556-f-2-b Acquired: 11/2/2018 23:31:00 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01323**
 Stddev .00080
 %RSD 6.0510

#1 **.01267**
 #2 **.01380**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3067.2	3035.6	24930.	2913.4
Stddev	1.9	5.6	12.	7.5
%RSD	.06249	.18517	.04990	.25656

#1	3068.6	3039.6	24939.	2908.1
#2	3065.9	3031.6	24921.	2918.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.212%	94.918%	99.189%	96.588%
Range				

Sample Name: 480-143659-e-1-d Acquired: 11/2/2018 23:34:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00039	.00304	.00462	.00179	.18417
Stddev	.00034	.01415	.00106	.00017	.00086
%RSD	87.372	465.35	22.938	9.6597	.46618

#1	-.00015	-.00696	.00387	.00167	.18477
#2	-.00064	.01304	.00537	.00191	.18356

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	52.598	.00025	-.2516	.00468
Stddev	.00019	.048	.00022	.0113	.00010
%RSD	102.31	.09202	89.977	4.499	2.1224

#1	.00005	52.564	.00041	-.2596	.00461
#2	.00033	52.633	.00009	-.2436	.00475

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01611	-.00034	4.4162	2.0144	.00080
Stddev	.00010	.00005	.0044	.0217	.00100
%RSD	.64987	15.437	.09880	1.0785	125.00

#1	.01604	-.00031	4.4193	1.9991	.00009
#2	.01618	-.00038	4.4132	2.0298	.00151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143659-e-1-d Acquired: 11/2/2018 23:34:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	15.049	F 70.967	-.00344	15.123	.00130
Stddev	.007	.018	.00020	.000	.00004
%RSD	.04626	.02471	5.8878	.00324	2.9298

#1	15.054	70.979	-.00330	15.122	.00128
#2	15.044	70.955	-.00359	15.123	.00133

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		45.000			
Low Limit		-.00300			

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00834	3.0557	-.00580	.01183	3.1086
Stddev	.00137	.0110	.00025	.00258	.0362
%RSD	16.457	.35850	4.3402	21.800	1.1657

#1	.00931	3.0479	-.00562	.01001	3.0830
#2	.00737	3.0634	-.00598	.01366	3.1342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.05804	F -.01958	.00835	.00064
Stddev	.00025	.00024	.00004	.00020	.00016
%RSD	238.71	.41438	.18871	2.4076	25.018

#1	-.00007	.05821	-.01961	.00821	.00075
#2	.00028	.05787	-.01955	.00849	.00053

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			18.000		
Low Limit			-.00500		

Sample Name: 480-143659-e-1-d Acquired: 11/2/2018 23:34:37 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00305**
 Stddev .00027
 %RSD 8.9286

#1 **.00324**
 #2 **.00286**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3173.8	3312.1	26600.	3149.5
Stddev	3.0	8.7	29.	4.4
%RSD	.09322	.26335	.10910	.13983

#1	3175.9	3318.3	26621.	3152.6
#2	3171.7	3305.9	26580.	3146.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.66%	103.56%	105.83%	104.42%
Range				

Sample Name: ccv-4973140 Acquired: 11/2/2018 23:38:23 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .57583	25.602	.53244	.50534	.52563
Stddev	.00205	.011	.00277	.00062	.00040
%RSD	.35636	.04201	.52058	.12318	.07541

#1	.57728	25.594	.53440	.50578	.52535
#2	.57438	25.609	.53048	.50490	.52591

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50722	27.191	.53380	-.0196	.51116
Stddev	.00061	.051	.00120	.0062	.00047
%RSD	.11967	.18853	.22463	31.44	.09103

#1	.50679	27.154	.53465	-.0239	.51149
#2	.50765	27.227	.53295	-.0152	.51083

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51820	.54503	26.750	25.196	.49328
Stddev	.00184	.00272	.098	.129	.00360
%RSD	.35578	.49846	.36453	.51004	.72881

#1	.51690	.54311	26.681	25.106	.49074
#2	.51950	.54695	26.819	25.287	.49582

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 23:38:23 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.765	.54948	.50361	24.839	.50748
Stddev	.035	.00059	.00196	.014	.00001
%RSD	.12922	.10707	.38850	.05798	.00234

#1	26.740	.54907	.50499	24.829	.50748
#2	26.789	.54990	.50223	24.850	.50749

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51633	27.280	.52379	.52430	26.023
Stddev	.00067	.074	.00058	.00483	.162
%RSD	.12898	.26969	.11165	.92079	.62065

#1	.51680	27.332	.52338	.52771	25.909
#2	.51586	27.228	.52420	.52089	26.138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53925	.53363	.53218	.48940	.51229
Stddev	.00131	.00055	.00229	.00019	.00110
%RSD	.24244	.10238	.43002	.03933	.21382

#1	.54018	.53324	.53380	.48926	.51151
#2	.53833	.53401	.53057	.48953	.51306

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/2/2018 23:38:23 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.52799**
 Stddev .00083
 %RSD .15754

#1 **.52740**
 #2 **.52858**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3165.3	3097.7	24517.	2968.8
Stddev	1.4	5.3	18.	9.9
%RSD	.04302	.17064	.07248	.33423
#1	3164.3	3093.9	24504.	2975.9
#2	3166.2	3101.4	24529.	2961.8

Sample Name: ccb-4975309 Acquired: 11/2/2018 23:41:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00062	-.02199	-.00010	.00003	.00005
Stddev	.00163	.05474	.00181	.00031	.00001
%RSD	261.77	248.99	1812.0	1185.1	17.786

#1	.00053	.01672	.00118	.00025	.00006
#2	-.00177	-.06069	-.00138	-.00020	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	.00299	.00002	-.0124	.00017
Stddev	.00030	.00056	.00013	.0075	.00000
%RSD	511.93	18.729	564.13	60.11	2.3747

#1	.00027	.00338	-.00007	-.0071	.00017
#2	-.00015	.00259	.00011	-.0177	.00017

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00258	-.00097	.00574	.00001
Stddev	.00001	.00036	.00110	.01632	.00038
%RSD	69.013	13.839	113.99	284.32	2853.0

#1	.00001	-.00232	-.00019	-.00580	-.00026
#2	.00003	-.00283	-.00175	.01728	.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 23:41:50 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00538	.00029	.00058	-.03277	.00034
Stddev	.00580	.00009	.00014	.00301	.00025
%RSD	107.78	30.832	23.679	9.1706	74.751

#1	.00948	.00023	.00048	-.03064	.00016
#2	.00128	.00036	.00067	-.03489	.00052

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00084	-.00292	-.00253	-.00176	-.03538
Stddev	.00057	.00082	.00145	.00022	.00572
%RSD	67.780	27.986	57.557	12.550	16.166

#1	.00125	-.00234	-.00355	-.00192	-.03134
#2	.00044	-.00350	-.00150	-.00160	-.03943

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00002	.00017	.00101	-.00061
Stddev	.00007	.00002	.00048	.00011	.00015
%RSD	205.63	114.65	287.82	11.361	25.107

#1	.00001	-.00000	.00050	.00093	-.00072
#2	-.00008	-.00004	-.00017	.00109	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/2/2018 23:41:50 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00029**
 Stddev .00029
 %RSD 101.01

#1 **-.00008**
 #2 **-.00050**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3168.8	3095.4	24346.	2927.8
Stddev	3.1	1.8	57.	7.5
%RSD	.09864	.05867	.23582	.25457
#1	3166.6	3096.6	24306.	2922.6
#2	3171.0	3094.1	24387.	2933.1

Sample Name: ccvl-4970377 Acquired: 11/2/2018 23:45:32 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00494	.18617	.01612	.01913	.00210
Stddev	.00039	.01741	.00006	.00037	.00001
%RSD	7.8145	9.3531	.39258	1.9110	.28358

#1	.00521	.19848	.01616	.01939	.00211
#2	.00467	.17386	.01607	.01888	.00210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00205	.55997	.00218	-.0030	.00438
Stddev	.00010	.00529	.00023	.0132	.00009
%RSD	5.0563	.94406	10.421	442.6	1.9562

#1	.00198	.55623	.00234	.0064	.00444
#2	.00212	.56370	.00202	-.0123	.00432

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00455	.00802	.05982	.49523	.02819
Stddev	.00019	.00036	.00367	.00629	.00055
%RSD	4.0820	4.4736	6.1325	1.2703	1.9683

#1	.00442	.00828	.06241	.49078	.02859
#2	.00469	.00777	.05723	.49967	.02780

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 23:45:32 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21042	.00320	.00915	.94261	.01074
Stddev	.00233	.00005	.00012	.00644	.00006
%RSD	1.1079	1.4207	1.3111	.68346	.59409

#1	.20877	.00316	.00906	.93805	.01069
#2	.21207	.00323	.00923	.94716	.01078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01198	.20960	.01904	.02066	.52084
Stddev	.00200	.00298	.00046	.00111	.04996
%RSD	16.672	1.4201	2.4049	5.3591	9.5923

#1	.01339	.20750	.01936	.02144	.48551
#2	.01057	.21171	.01872	.01988	.55617

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01032	.00514	.00589	.02141	.00431
Stddev	.00105	.00020	.00009	.00005	.00004
%RSD	10.163	3.9507	1.4731	.25570	.90597

#1	.01107	.00500	.00583	.02137	.00428
#2	.00958	.00528	.00596	.02144	.00434

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/2/2018 23:45:32 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg .01112
Stddev .00118
%RSD 10.583

#1 .01196
#2 .01029

Check ? Chk Pass
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3205.0	3133.3	24843.	2935.7
Stddev	3.2	3.7	52.	17.9
%RSD	.10127	.11928	.20967	.60824
#1	3202.7	3130.7	24806.	2948.3
#2	3207.3	3136.0	24880.	2923.1

Sample Name: 480-143659-a-2-b Acquired: 11/2/2018 23:49:14 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00115	-.03376	-.00005	-.00040	.00193
Stddev	.00035	.01118	.00049	.00024	.00006
%RSD	30.283	33.126	1003.8	59.779	3.0170

#1	-.00140	-.02585	.00030	-.00023	.00189
#2	-.00090	-.04167	-.00040	-.00057	.00197

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	3.1702	-.00005	.0305	.00042
Stddev	.00007	.0083	.00003	.0078	.00022
%RSD	43.684	.26168	47.408	25.63	51.991

#1	.00011	3.1761	-.00004	.0360	.00058
#2	.00021	3.1644	-.00007	.0249	.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00100	.00231	.08788	-.00024
Stddev	.00019	.00008	.00117	.00774	.00099
%RSD	642.32	7.5581	50.633	8.8090	410.55

#1	.00010	-.00105	.00148	.09336	.00046
#2	-.00016	-.00094	.00314	.08241	-.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143659-a-2-b Acquired: 11/2/2018 23:49:14 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.79161	.00117	-.00050	1.0941	.00037
Stddev	.00319	.00005	.00023	.0113	.00008
%RSD	.40320	4.4527	45.077	1.0335	22.755

#1	.78935	.00113	-.00066	1.0861	.00031
#2	.79387	.00120	-.00034	1.1021	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00083	.65524	-.00271	-.00537	-.00582
Stddev	.00088	.00344	.00305	.00417	.00381
%RSD	105.26	.52470	112.82	77.625	65.485

#1	.00021	.65281	-.00486	-.00832	-.00313
#2	.00145	.65767	-.00055	-.00242	-.00852

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	.01464	-.00030	.00299	-.00074
Stddev	.00049	.00005	.00010	.00063	.00016
%RSD	1368.0	.32345	34.129	21.056	22.149

#1	.00031	.01461	-.00023	.00254	-.00062
#2	-.00038	.01467	-.00038	.00343	-.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143659-a-2-b Acquired: 11/2/2018 23:49:14 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00325**
Stddev .00002
%RSD .48698

#1 **.00324**
#2 **.00326**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3209.7	3146.4	24978.	3007.6
Stddev	.6	1.2	44.	11.8
%RSD	.01760	.03906	.17550	.39257

#1	3210.1	3147.3	25009.	3016.0
#2	3209.3	3145.6	24947.	2999.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.82%	98.384%	99.379%	99.712%
Range				

Sample Name: 480-143659-e-3-b Acquired: 11/2/2018 23:52:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00113	-.01399	.00522	.00090	.17662
Stddev	.00020	.05054	.00253	.00010	.00013
%RSD	17.665	361.26	48.538	11.560	.07134

#1	.00099	-.04973	.00701	.00098	.17670
#2	.00127	.02175	.00343	.00083	.17653

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	50.568	.00027	-.2467	.00458
Stddev	.00001	.112	.00009	.0196	.00005
%RSD	35.310	.22230	34.605	7.941	1.1813

#1	.00004	50.647	.00034	-.2606	.00454
#2	.00002	50.488	.00020	-.2329	.00462

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01520	.02068	4.3152	1.8753	.00136
Stddev	.00002	.00019	.0059	.0374	.00031
%RSD	.09914	.92445	.13625	1.9916	23.072

#1	.01519	.02081	4.3193	1.8489	.00158
#2	.01521	.02054	4.3110	1.9017	.00114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143659-e-3-b Acquired: 11/2/2018 23:52:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576-2	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}2	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	14.514	F 68.680	-.00337	14.474	.00146
Stddev	.008	.090	.00047	.052	.00060
%RSD	.05625	.13144	14.068	.36007	41.255

#1	14.519	68.617	-.00303	14.511	.00189
#2	14.508	68.744	-.00370	14.438	.00104

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		45.000			
Low Limit		-.00300			

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00921	2.9402	-.00706	.01275	2.9902
Stddev	.00116	.0160	.00007	.00042	.0351
%RSD	12.617	.54535	.98387	3.3160	1.1730

#1	.00839	2.9516	-.00701	.01305	2.9654
#2	.01003	2.9289	-.00711	.01245	3.0150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00079	.05596	F -.01855	.00757	.00005
Stddev	.00020	.00021	.00051	.00029	.00004
%RSD	25.739	.37386	2.7619	3.8098	88.972

#1	.00094	.05581	-.01891	.00777	.00002
#2	.00065	.05611	-.01819	.00736	.00008

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			18.000		
Low Limit			-.00500		

Sample Name: 480-143659-e-3-b Acquired: 11/2/2018 23:52:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.01944**
Stddev .00073
%RSD 3.7510

#1 **.01893**
#2 **.01996**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3174.4	3291.3	26425.	3141.9
Stddev	5.0	1.4	42.	2.3
%RSD	.15745	.04235	.15899	.07355

#1	3178.0	3292.3	26455.	3140.3
#2	3170.9	3290.3	26395.	3143.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.68%	102.91%	105.14%	104.16%
Range				

Sample Name: 480-143659-e-4-b Acquired: 11/2/2018 23:56:40 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	-.00224	.00122	.02689	.22477
Stddev	.00055	.02701	.00083	.00019	.00022
%RSD	356.89	1204.1	68.024	.70767	.09928

#1	.00024	-.02134	.00063	.02702	.22493
#2	-.00055	.01686	.00181	.02675	.22461

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	38.427	-.00005	-.0618	.01119
Stddev	.00011	.051	.00007	.0210	.00021
%RSD	111.83	.13331	151.83	34.01	1.9179

#1	.00002	38.391	-.00010	-.0766	.01134
#2	.00017	38.463	.00000	-.0469	.01104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00384	-.00119	2.7410	2.5778	.00002
Stddev	.00002	.00053	.0086	.0052	.00035
%RSD	.44109	44.283	.31287	.20301	1803.2

#1	.00385	-.00157	2.7471	2.5815	-.00023
#2	.00383	-.00082	2.7350	2.5741	.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143659-e-4-b Acquired: 11/2/2018 23:56:40 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	5.9582	14.683	-.00088	47.221	.00168
Stddev	.0225	.088	.00021	.011	.00029
%RSD	.37746	.60194	24.332	.02428	17.350

#1	5.9741	14.745	-.00103	47.229	.00189
#2	5.9423	14.620	-.00073	47.213	.00147

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00425	.71611	-.00360	-.00115	14.331
Stddev	.00042	.00349	.00046	.00003	.081
%RSD	9.7772	.48783	12.696	2.8788	.56210

#1	.00455	.71858	-.00392	-.00117	14.274
#2	.00396	.71364	-.00327	-.00113	14.388

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.20279	-.00380	.00445	-.00093
Stddev	.00073	.00098	.00006	.00204	.00040
%RSD	205.12	.48435	1.4747	45.894	43.389

#1	.00087	.20210	-.00384	.00589	-.00121
#2	-.00016	.20349	-.00376	.00301	-.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143659-e-4-b Acquired: 11/2/2018 23:56:40 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00361**
 Stddev .00097
 %RSD 26.760

#1 **.00292**
 #2 **.00429**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3189.3	3107.0	24836.	2958.5
Stddev	8.8	6.6	37.	16.4
%RSD	.27450	.21094	.14726	.55512

#1	3195.5	3111.7	24862.	2970.1
#2	3183.1	3102.4	24810.	2946.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.16%	97.152%	98.816%	98.082%
Range				

Sample Name: 480-143747-j-1-a Acquired: 11/3/2018 0:00:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	-.06585	.00057	.60738	.14972
Stddev	.00061	.03102	.00056	.00132	.00004
%RSD	133.61	47.107	98.929	.21684	.02351

#1	-.00089	-.04392	.00097	.60831	.14970
#2	-.00003	-.08779	.00017	.60645	.14975

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	101.22	.00023	.0042	.00001
Stddev	.00011	.40	.00010	.0273	.00009
%RSD	82.598	.39037	43.863	648.8	1082.2

#1	.00021	101.50	.00030	-.0151	.00007
#2	.00006	100.94	.00016	.0235	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	-.00110	1.2596	2.4609	.01479
Stddev	.00012	.00064	.0068	.0484	.00160
%RSD	27.807	58.732	.54156	1.9674	10.840

#1	-.00035	-.00155	1.2645	2.4951	.01592
#2	-.00052	-.00064	1.2548	2.4266	.01365

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143747-j-1-a Acquired: 11/3/2018 0:00:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	58.530	.02077	.00423	59.183	.00126
Stddev	.190	.00002	.00005	.448	.00018
%RSD	.32404	.09739	1.2788	.75688	13.904

#1	58.396	.02078	.00419	59.500	.00114
#2	58.665	.02075	.00426	58.867	.00138

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00157	22.493	-.00378	-.00606	8.7088
Stddev	.00029	.028	.00257	.00008	.0431
%RSD	18.508	.12646	68.009	1.3562	.49526

#1	.00178	22.513	-.00560	-.00612	8.6783
#2	.00137	22.473	-.00196	-.00600	8.7393

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	1.6844	.00069	.00321	-.00154
Stddev	.00057	.0001	.00039	.00165	.00024
%RSD	508.24	.00586	57.328	51.385	15.678

#1	-.00029	1.6843	.00097	.00204	-.00137
#2	.00052	1.6844	.00041	.00438	-.00171

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143747-j-1-a Acquired: 11/3/2018 0:00:25 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00295**
 Stddev .00011
 %RSD 3.6707

#1 **.00303**
 #2 **.00288**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3102.1	3049.3	24894.	2927.2
Stddev	2.3	2.6	71.	18.5
%RSD	.07531	.08485	.28495	.63091

#1	3100.4	3047.4	24944.	2914.2
#2	3103.7	3051.1	24843.	2940.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.34%	95.345%	99.043%	97.046%
Range				

Sample Name: mb 480-440214/1-a Acquired: 11/3/2018 0:04:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00053	-.02074	.00168	.00021	.00011
Stddev	.00048	.05781	.00030	.00030	.00001
%RSD	88.869	278.78	17.840	142.26	9.6507

#1	-.00020	.02014	.00147	.00042	.00010
#2	-.00087	-.06161	.00190	-.00000	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.03164	.00000	.0146	.00025
Stddev	.00016	.00238	.00002	.0196	.00002
%RSD	108.84	7.5313	351.31	134.5	8.4735

#1	.00003	.03332	.00002	.0007	.00026
#2	.00026	.02995	-.00001	.0284	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	-.00119	-.00036	-.01741	-.00011
Stddev	.00005	.00039	.00024	.01455	.00018
%RSD	11.883	32.923	68.614	83.578	159.86

#1	-.00041	-.00146	-.00018	-.02770	.00001
#2	-.00035	-.00091	-.00053	-.00712	-.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-440214/1-a Acquired: 11/3/2018 0:04:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00001	-.00069	-.02950	.00061
Stddev	.00031	.00005	.00015	.00972	.00022
%RSD	49.442	559.78	21.711	32.955	36.730

#1	.00041	-.00002	-.00080	-.03637	.00077
#2	.00084	.00004	-.00058	-.02263	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00090	.00074	-.00250	-.00428	-.05143
Stddev	.00127	.00176	.00097	.00143	.03594
%RSD	141.22	237.88	38.596	33.416	69.873

#1	-.00000	-.00050	-.00319	-.00530	-.07684
#2	-.00180	.00198	-.00182	-.00327	-.02602

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00052	.00027	.00070	.00102	-.00050
Stddev	.00040	.00007	.00058	.00030	.00011
%RSD	75.822	24.773	83.627	29.723	22.433

#1	.00024	.00022	.00111	.00081	-.00058
#2	.00080	.00031	.00029	.00123	-.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-440214/1-a Acquired: 11/3/2018 0:04:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00066**
 Stddev .00033
 %RSD 50.149

#1 **.00043**
 #2 **.00089**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3172.2	3142.6	24897.	2967.2
Stddev	1.3	.7	92.	13.8
%RSD	.03973	.02239	.36775	.46546

#1	3171.3	3142.1	24832.	2976.9
#2	3173.1	3143.1	24961.	2957.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.61%	98.265%	99.055%	98.370%
Range				

Sample Name: lcs 480-440214/2-a Acquired: 11/3/2018 0:07:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05364	10.737	.22028	.20903	.20790
Stddev	.00062	.009	.00485	.00068	.00009
%RSD	1.1526	.08024	2.2013	.32581	.04404

#1	.05320	10.743	.22371	.20855	.20797
#2	.05408	10.731	.21686	.20951	.20784

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21965	11.008	.22245	-.0217	.20723
Stddev	.00006	.026	.00000	.0666	.00033
%RSD	.02879	.23955	.00105	307.1	.15977

#1	.21969	10.989	.22244	-.0688	.20700
#2	.21960	11.027	.22245	.0254	.20746

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21682	.20929	11.013	10.436	.20393
Stddev	.00079	.00121	.056	.012	.00030
%RSD	.36358	.57986	.51030	.11457	.14591

#1	.21738	.21015	10.974	10.444	.20372
#2	.21626	.20844	11.053	10.427	.20414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-440214/2-a Acquired: 11/3/2018 0:07:45 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.744	.21822	.20835	10.188	.21493
Stddev	.064	.00080	.00024	.006	.00016
%RSD	.59947	.36886	.11312	.05586	.07468

#1	10.789	.21879	.20819	10.192	.21482
#2	10.698	.21765	.20852	10.183	.21504

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20879	10.961	.21416	.21121	10.837
Stddev	.00024	.001	.00136	.00186	.001
%RSD	.11267	.01286	.63617	.88090	.00956

#1	.20896	10.962	.21513	.21253	10.836
#2	.20863	10.960	.21320	.20990	10.838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21589	.21811	.21738	.20209	.21231
Stddev	.00046	.00001	.00023	.00090	.00044
%RSD	.21252	.00373	.10765	.44625	.20825

#1	.21622	.21811	.21754	.20145	.21200
#2	.21557	.21810	.21721	.20273	.21262

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-440214/2-a Acquired: 11/3/2018 0:07:45 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22923**
 Stddev .00182
 %RSD .79607

#1 **.23052**
 #2 **.22794**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3210.2	3134.8	24789.	2961.5
Stddev	1.3	.6	190.	6.2
%RSD	.04144	.01850	.76723	.21016

#1	3209.3	3135.2	24655.	2965.9
#2	3211.2	3134.3	24924.	2957.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.84%	98.019%	98.628%	98.182%
Range				

Sample Name: 480-143471-d-4-b Acquired: 11/3/2018 0:11:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	-.05313	.01991	.11827	.08331
Stddev	.00004	.00686	.00086	.00006	.00019
%RSD	5.5018	12.906	4.3232	.05090	.22641

#1	-.00070	-.05798	.02052	.11831	.08317
#2	-.00076	-.04828	.01930	.11823	.08344

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	113.53	.00030	.0225	.00033
Stddev	.00006	.04	.00017	.0017	.00025
%RSD	119.15	.03254	57.969	7.552	74.705

#1	-.00010	113.50	.00042	.0213	.00016
#2	-.00001	113.55	.00018	.0237	.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.00195	5.0145	7.5561	.00539
Stddev	.00003	.00018	.0190	.0395	.00178
%RSD	37.610	9.3994	.37885	.52274	33.062

#1	-.00006	-.00182	5.0011	7.5840	.00413
#2	-.00011	-.00208	5.0279	7.5281	.00664

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-b Acquired: 11/3/2018 0:11:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	30.535	.31951	.00190	14.172	.00126
Stddev	.112	.00114	.00004	.042	.00003
%RSD	.36553	.35702	2.2277	.29330	2.6040

#1	30.614	.32032	.00193	14.201	.00128
#2	30.456	.31870	.00187	14.142	.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00147	56.885	-.00212	-.00501	9.6366
Stddev	.00103	.011	.00032	.00116	.0701
%RSD	69.735	.01941	14.987	23.095	.72687

#1	.00075	56.877	-.00234	-.00583	9.5870
#2	.00220	56.893	-.00189	-.00419	9.6861

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.13851	.00023	.00317	-.00069
Stddev	.00048	.00007	.00026	.00062	.00044
%RSD	152.89	.05287	112.40	19.688	63.170

#1	-.00003	.13857	.00005	.00272	-.00100
#2	.00066	.13846	.00042	.00361	-.00038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-b Acquired: 11/3/2018 0:11:17 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00191**
 Stddev .00005
 %RSD 2.7256

#1 **.00195**
 #2 **.00188**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3149.1	3080.8	24793.	2958.7
Stddev	12.8	9.2	96.	.0
%RSD	.40605	.29981	.38901	.00011

#1	3158.1	3087.3	24725.	2958.7
#2	3140.0	3074.2	24861.	2958.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.86%	96.330%	98.643%	98.090%
Range				

Sample Name: 480-143471-d-4-bSD@5 Acquired: 11/3/2018 0:14:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.04319	.00626	.02258	.01679
Stddev	.00036	.03158	.00010	.00023	.00005
%RSD	404.26	73.133	1.6778	1.0404	.29382

#1	-.00035	-.02085	.00633	.02274	.01675
#2	.00017	-.06552	.00618	.02241	.01682

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	23.070	-.00000	.0152	.00043
Stddev	.00001	.011	.00004	.0365	.00000
%RSD	19.030	.04576	2803.3	240.4	.20175

#1	-.00004	23.078	-.00003	.0410	.00043
#2	-.00003	23.063	.00003	-.0106	.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.00093	1.0151	1.4460	.00102
Stddev	.00012	.00071	.0010	.0078	.00014
%RSD	53.976	75.958	.10313	.54177	13.652

#1	-.00014	-.00144	1.0158	1.4516	.00092
#2	-.00031	-.00043	1.0144	1.4405	.00112

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-bSD@5 Acquired: 11/3/2018 0:14:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.1110	.06572	-.00010	2.7207	.00067
Stddev	.0135	.00005	.00005	.0067	.00008
%RSD	.22061	.07140	44.147	.24602	11.757

#1	6.1205	.06576	-.00013	2.7255	.00062
#2	6.1014	.06569	-.00007	2.7160	.00073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	11.399	-.00383	-.00376	1.8947
Stddev	.00030	.004	.00033	.00043	.0052
%RSD	205.98	.03947	8.5474	11.394	.27234

#1	.00036	11.396	-.00360	-.00346	1.8983
#2	-.00007	11.402	-.00407	-.00406	1.8910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.02800	.00073	.00309	-.00092
Stddev	.00052	.00016	.00008	.00035	.00027
%RSD	229.91	.58582	11.326	11.168	29.088

#1	-.00014	.02812	.00067	.00285	-.00073
#2	.00060	.02789	.00079	.00333	-.00111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-bSD@5 Acquired: 11/3/2018 0:14:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00008**
 Stddev .00008
 %RSD 108.50

#1 **.00002**
 #2 **.00014**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3213.8	3135.0	24894.	2949.3
Stddev	8.1	7.9	35.	.1
%RSD	.25284	.25054	.14012	.00504

#1	3219.6	3140.5	24870.	2949.2
#2	3208.1	3129.4	24919.	2949.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.95%	98.026%	99.046%	97.778%
Range				

Sample Name: 480-143471-d-4-bPDS Acquired: 11/3/2018 0:18:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05730	11.420	.25494	.34148	.30455
Stddev	.00006	.051	.00129	.00009	.00030
%RSD	.09940	.44580	.50669	.02620	.09845

#1	.05734	11.384	.25585	.34154	.30434
#2	.05726	11.456	.25402	.34142	.30476

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22781	121.79	.22881	-.0085	.21516
Stddev	.00054	.01	.00026	.0024	.00013
%RSD	.23697	.00511	.11330	28.15	.05943

#1	.22819	121.79	.22863	-.0102	.21507
#2	.22743	121.78	.22899	-.0068	.21525

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21895	.22695	16.374	18.445	.22661
Stddev	.00089	.00080	.028	.068	.00081
%RSD	.40809	.35253	.17208	.36668	.35780

#1	.21832	.22639	16.393	18.397	.22603
#2	.21958	.22752	16.354	18.492	.22718

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-bPDS Acquired: 11/3/2018 0:18:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	40.847	.52575	.21861	24.831	.22709
Stddev	.144	.00111	.00046	.072	.00004
%RSD	.35176	.21160	.21215	.29069	.01672

#1	40.745	.52497	.21894	24.780	.22712
#2	40.949	.52654	.21829	24.882	.22707

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22991	67.233	.23371	.22197	20.788
Stddev	.00099	.060	.00000	.00335	.122
%RSD	.42946	.08920	.00089	1.5087	.58467

#1	.23061	67.190	.23371	.22434	20.702
#2	.22921	67.275	.23371	.21960	20.874

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.22999	.36737	.23090	.21556	.22123
Stddev	.00141	.00023	.00102	.00012	.00100
%RSD	.61127	.06313	.44378	.05359	.44997

#1	.23099	.36753	.23017	.21564	.22053
#2	.22900	.36720	.23162	.21548	.22193

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-bPDS Acquired: 11/3/2018 0:18:36 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.22158**
 Stddev .00044
 %RSD .19814

#1 **.22189**
 #2 **.22127**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3115.9	3055.9	24866.	2935.9
Stddev	6.0	8.9	101.	9.8
%RSD	.19246	.29281	.40708	.33241

#1	3120.1	3062.2	24938.	2942.8
#2	3111.6	3049.6	24795.	2929.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.79%	95.553%	98.935%	97.332%
Range				

Sample Name: ccv-4973140 Acquired: 11/3/2018 0:22:08 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56846	25.578	.52801	.50871	.51750
Stddev	.00112	.179	.00042	.00348	.00021
%RSD	.19681	.69939	.07881	.68377	.03973

#1	.56767	25.452	.52831	.50625	.51764
#2	.56925	25.705	.52772	.51117	.51735

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50749	26.700	.53216	-.0223	.50672
Stddev	.00195	.081	.00026	.0174	.00070
%RSD	.38434	.30299	.04881	78.05	.13866

#1	.50611	26.643	.53235	-.0100	.50722
#2	.50887	26.757	.53198	-.0346	.50623

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51694	.53303	26.512	25.109	.49922
Stddev	.00043	.00274	.068	.130	.00140
%RSD	.08348	.51466	.25614	.51746	.27950

#1	.51725	.53109	26.464	25.017	.50021
#2	.51664	.53497	26.560	25.201	.49824

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 0:22:08 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.349	.53818	.50607	25.039	.50322
Stddev	.015	.00126	.00030	.168	.00009
%RSD	.05695	.23495	.05906	.67126	.01871

#1	26.338	.53907	.50586	24.920	.50329
#2	26.359	.53729	.50628	25.157	.50315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51036	27.188	.52061	.52421	26.115
Stddev	.00113	.005	.00035	.00031	.273
%RSD	.22066	.01806	.06724	.06001	1.0448

#1	.51115	27.185	.52086	.52399	25.923
#2	.50956	27.192	.52036	.52443	26.308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53400	.52938	.53200	.48950	.51108
Stddev	.00068	.00211	.00082	.00024	.00056
%RSD	.12718	.39792	.15479	.04861	.10915

#1	.53448	.52789	.53142	.48967	.51147
#2	.53352	.53087	.53258	.48934	.51068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 0:22:08 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.52586**
 Stddev .00048
 %RSD .09158

#1 **.52620**
 #2 **.52552**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3164.9	3096.1	24659.	2936.9
Stddev	5.6	2.8	14.	19.3
%RSD	.17711	.09073	.05483	.65731
#1	3160.9	3094.1	24669.	2950.5
#2	3168.8	3098.1	24649.	2923.2

Sample Name: ccb-4975309 Acquired: 11/3/2018 0:25:35 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	-.05567	.00254	-.00044	.00005
Stddev	.00014	.01151	.00066	.00029	.00002
%RSD	23.793	20.669	25.857	67.258	35.918

#1	-.00049	-.04753	.00207	-.00065	.00006
#2	-.00069	-.06380	.00300	-.00023	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00107	.00018	-.0010	.00003
Stddev	.00001	.01124	.00007	.0336	.00003
%RSD	7.1384	1049.2	37.135	3301.	100.86

#1	.00015	.00902	.00022	.0227	.00001
#2	.00014	-.00687	.00013	-.0247	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	-.00051	.00046	-.00137	-.00105
Stddev	.00016	.00037	.00063	.02070	.00191
%RSD	43.955	72.405	135.49	1512.9	181.65

#1	.00049	-.00078	.00002	-.01601	-.00240
#2	.00026	-.00025	.00091	.01327	.00030

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 0:25:35 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00159	.00021	.00067	-.03857	.00011
Stddev	.00101	.00003	.00036	.00131	.00028
%RSD	63.399	16.336	54.311	3.3949	269.44

#1	.00230	.00023	.00041	-.03765	-.00010
#2	.00088	.00019	.00093	-.03950	.00031

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	-.00174	-.00200	-.00306	-.01529
Stddev	.00055	.00034	.00041	.00045	.00846
%RSD	436.53	19.475	20.472	14.822	55.305

#1	.00052	-.00150	-.00228	-.00338	-.00931
#2	-.00026	-.00198	-.00171	-.00274	-.02127

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00063	.00000	.00077	.00025	-.00076
Stddev	.00075	.00000	.00076	.00171	.00001
%RSD	120.19	18.533	97.937	685.45	1.2014

#1	.00116	.00000	.00024	-.00096	-.00075
#2	.00009	.00001	.00131	.00146	-.00077

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 0:25:35 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00036**
 Stddev .00047
 %RSD 130.67

#1 **-.00070**
 #2 **-.00003**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3161.5	3103.4	24482.	2904.8
Stddev	.1	1.5	104.	3.2
%RSD	.00223	.04768	.42470	.11026
#1	3161.5	3102.3	24408.	2907.1
#2	3161.6	3104.4	24555.	2902.6

Sample Name: ccvl-4970377 Acquired: 11/3/2018 0:29:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00499	.17516	.01740	.01920	.00206
Stddev	.00042	.02746	.00158	.00017	.00001
%RSD	8.3555	15.679	9.0538	.90182	.32852

#1	.00470	.19458	.01628	.01933	.00207
#2	.00529	.15574	.01851	.01908	.00206

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00207	.54505	.00210	-.0086	.00414
Stddev	.00011	.00290	.00002	.0136	.00007
%RSD	5.0625	.53285	1.1284	158.1	1.7480

#1	.00215	.54299	.00208	-.0182	.00420
#2	.00200	.54710	.00212	.0010	.00409

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00408	.00864	.05118	.50955	.03040
Stddev	.00035	.00021	.00268	.01901	.00121
%RSD	8.6370	2.4069	5.2352	3.7303	3.9650

#1	.00383	.00879	.05308	.52299	.02955
#2	.00433	.00850	.04929	.49611	.03125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 0:29:19 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20835	.00316	.00956	.93366	.01070
Stddev	.00043	.00003	.00001	.00601	.00023
%RSD	.20875	1.0053	.14062	.64322	2.1089

#1	.20865	.00318	.00955	.93791	.01054
#2	.20804	.00314	.00957	.92942	.01086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01034	.20319	.01820	.02319	.51740
Stddev	.00053	.00205	.00009	.00131	.03595
%RSD	5.1504	1.0082	.51441	5.6334	6.9479

#1	.01072	.20174	.01827	.02227	.54282
#2	.00996	.20464	.01814	.02412	.49198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00962	.00518	.00545	.02100	.00440
Stddev	.00024	.00010	.00034	.00133	.00018
%RSD	2.5439	1.8648	6.1724	6.3131	3.9867

#1	.00980	.00525	.00569	.02193	.00452
#2	.00945	.00511	.00522	.02006	.00427

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 0:29:19 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01082**
 Stddev .00003
 %RSD .31804

#1 **.01080**
 #2 **.01085**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3196.9	3151.4	24897.	2928.7
Stddev	3.2	9.7	88.	6.3
%RSD	.10084	.30895	.35356	.21521
#1	3199.2	3158.3	24960.	2933.1
#2	3194.6	3144.6	24835.	2924.2

Sample Name: 480-143471-d-4-c ms Acquired: 11/3/2018 0:33:02 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05292	10.667	.24178	.33210	.29117
Stddev	.00037	.012	.00229	.00028	.00074
%RSD	.70563	.11287	.94878	.08490	.25565

#1	.05318	10.676	.24340	.33190	.29170
#2	.05266	10.659	.24016	.33230	.29064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21669	123.46	.22309	-.0045	.20287
Stddev	.00073	.04	.00026	.0157	.00015
%RSD	.33755	.03016	.11639	352.4	.07569

#1	.21618	123.44	.22290	-.0155	.20276
#2	.21721	123.49	.22327	.0066	.20298

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20845	.20903	15.808	18.269	.21510
Stddev	.00013	.00124	.077	.066	.00280
%RSD	.06077	.59385	.48479	.36073	1.3009

#1	.20854	.20991	15.754	18.222	.21312
#2	.20836	.20815	15.863	18.315	.21707

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-c ms Acquired: 11/3/2018 0:33:02 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	40.998	.52229	.20842	24.906	.20938
Stddev	.045	.00017	.00034	.044	.00023
%RSD	.11036	.03273	.16174	.17668	.11044

#1	41.030	.52217	.20866	24.875	.20954
#2	40.966	.52241	.20818	24.937	.20921

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20861	68.517	.21271	.21149	20.578
Stddev	.00210	.025	.00225	.00240	.157
%RSD	1.0053	.03654	1.0571	1.1354	.76257

#1	.20713	68.535	.21430	.20979	20.467
#2	.21009	68.499	.21112	.21319	20.689

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21524	.35423	.21177	.20271	.20561
Stddev	.00022	.00067	.00050	.00122	.00021
%RSD	.09989	.19028	.23610	.60176	.10223

#1	.21539	.35376	.21142	.20184	.20576
#2	.21509	.35471	.21213	.20357	.20546

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-c ms Acquired: 11/3/2018 0:33:02 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21654**
 Stddev .00120
 %RSD .55228

#1 **.21739**
 #2 **.21569**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.0	3054.3	24998.	2943.9
Stddev	1.5	2.8	36.	4.8
%RSD	.04972	.09022	.14432	.16152

#1	3106.1	3056.2	25023.	2947.3
#2	3103.9	3052.3	24972.	2940.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.43%	95.502%	99.458%	97.600%
Range				

Sample Name: 480-143471-d-4-d msd Acquired: 11/3/2018 0:36:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05278	10.533	.23593	.32789	.29022
Stddev	.00091	.007	.00100	.00019	.00130
%RSD	1.7295	.06199	.42502	.05941	.44635

#1	.05213	10.538	.23664	.32803	.28930
#2	.05342	10.529	.23522	.32776	.29113

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21307	121.39	.21844	.0137	.19819
Stddev	.00020	.06	.00070	.0002	.00010
%RSD	.09392	.05055	.31825	1.745	.04821

#1	.21293	121.34	.21893	.0135	.19812
#2	.21321	121.43	.21794	.0139	.19826

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20506	.20643	15.526	18.083	.21359
Stddev	.00010	.00015	.073	.024	.00362
%RSD	.04654	.07268	.46736	.13365	1.6930

#1	.20513	.20653	15.474	18.066	.21103
#2	.20499	.20632	15.577	18.100	.21614

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-d msd Acquired: 11/3/2018 0:36:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	40.567	.51755	.20579	24.632	.20635
Stddev	.187	.00173	.00016	.019	.00073
%RSD	.46000	.33479	.07970	.07839	.35162

#1	40.435	.51632	.20591	24.618	.20584
#2	40.699	.51877	.20568	24.645	.20687

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20393	64.952	.21002	.20564	20.269
Stddev	.00292	.139	.00011	.00233	.019
%RSD	1.4310	.21382	.05355	1.1324	.09602

#1	.20599	65.051	.21010	.20729	20.283
#2	.20186	64.854	.20994	.20399	20.256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21228	.35031	.21007	.19892	.20448
Stddev	.00053	.00021	.00036	.00009	.00010
%RSD	.24846	.05934	.17203	.04698	.04649

#1	.21190	.35016	.21032	.19899	.20441
#2	.21265	.35045	.20981	.19886	.20455

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143471-d-4-d msd Acquired: 11/3/2018 0:36:32 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21402**
 Stddev .00043
 %RSD .20061

#1 **.21372**
 #2 **.21433**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3104.6	3057.5	24797.	2938.3
Stddev	2.1	3.4	41.	1.4
%RSD	.06644	.11125	.16414	.04748

#1	3106.0	3055.1	24826.	2939.3
#2	3103.1	3059.9	24768.	2937.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.42%	95.603%	98.660%	97.414%
Range				

Sample Name: 480-143469-g-1-b Acquired: 11/3/2018 0:40:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00146	-.01499	.00150	.18824	.05224
Stddev	.00028	.00267	.00149	.00048	.00003
%RSD	18.891	17.795	99.718	.25633	.05148

#1	-.00165	-.01688	.00255	.18790	.05222
#2	-.00126	-.01311	.00044	.18858	.05226

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	195.09	.00050	.0478	.00136
Stddev	.00009	.21	.00008	.0033	.00004
%RSD	100.32	.10735	16.732	6.856	3.2047

#1	.00003	194.94	.00044	.0501	.00139
#2	.00016	195.23	.00055	.0455	.00133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00033	.02712	14.988	.00759
Stddev	.00032	.00087	.00246	.002	.00021
%RSD	71.638	264.25	9.0882	.01244	2.7915

#1	.00068	-.00029	.02538	14.989	.00744
#2	.00022	.00094	.02886	14.986	.00774

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143469-g-1-b Acquired: 11/3/2018 0:40:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	53.644	1.1213	.00018	11.352	.00495
Stddev	.047	.0015	.00027	.034	.00025
%RSD	.08830	.13496	151.30	.29537	5.0062

#1	53.678	1.1224	-.00001	11.376	.00512
#2	53.611	1.1202	.00038	11.329	.00477

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	49.078	-.00144	-.00585	8.7088
Stddev	.00003	.127	.00050	.00130	.0130
%RSD	6.6429	.25807	34.590	22.216	.14924

#1	.00053	48.988	-.00179	-.00493	8.6996
#2	.00048	49.168	-.00109	-.00677	8.7179

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00055	.29072	-.00035	.00350	-.00092
Stddev	.00030	.00065	.00001	.00231	.00053
%RSD	54.337	.22387	1.9909	65.891	57.153

#1	.00077	.29118	-.00035	.00513	-.00055
#2	.00034	.29026	-.00034	.00187	-.00130

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143469-g-1-b Acquired: 11/3/2018 0:40:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00239**
 Stddev .00032
 %RSD 13.529

#1 **.00216**
 #2 **.00262**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3097.5	3041.8	24923.	2920.3
Stddev	.8	.5	104.	.6
%RSD	.02585	.01585	.41869	.01946

#1	3097.0	3041.4	24849.	2920.7
#2	3098.1	3042.1	24997.	2919.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.19%	95.111%	99.160%	96.815%
Range				

Sample Name: 480-143479-e-1-b Acquired: 11/3/2018 0:43:41 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00116	-.02792	.00052	.04897	.03411
Stddev	.00032	.04312	.00008	.00035	.00003
%RSD	27.756	154.45	14.595	.71863	.10090

#1	-.00139	-.05841	.00047	.04922	.03408
#2	-.00093	.00257	.00058	.04872	.03413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	307.72	.00014	-.0601	.00224
Stddev	.00007	.83	.00013	.0132	.00005
%RSD	3112.0	.27077	96.314	21.91	2.1405

#1	.00004	307.13	.00004	-.0694	.00227
#2	-.00005	308.31	.00023	-.0508	.00220

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00091	.00001	.12626	3.9345	.00937
Stddev	.00013	.00051	.00169	.0205	.00007
%RSD	13.917	5895.0	1.3364	.52185	.75711

#1	.00082	.00037	.12745	3.9200	.00942
#2	.00100	-.00035	.12506	3.9491	.00932

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143479-e-1-b Acquired: 11/3/2018 0:43:41 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	44.343	1.3646	-.00049	7.8814	.00865
Stddev	.141	.0036	.00006	.0160	.00012
%RSD	.31900	.26558	12.323	.20322	1.3557

#1	44.443	1.3672	-.00045	7.8700	.00874
#2	44.243	1.3620	-.00054	7.8927	.00857

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00150	F 169.74	-.00314	-.00306	3.2322
Stddev	.00109	.12	.00041	.00008	.0531
%RSD	72.459	.07100	13.122	2.5572	1.6438

#1	-.00073	169.82	-.00343	-.00312	3.1946
#2	-.00227	169.65	-.00285	-.00301	3.2697

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00078	.21575	-.00064	.00331	-.00117
Stddev	.00003	.00021	.00050	.00081	.00053
%RSD	4.2909	.09546	77.909	24.378	44.887

#1	.00081	.21560	-.00099	.00274	-.00080
#2	.00076	.21589	-.00029	.00389	-.00154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143479-e-1-b Acquired: 11/3/2018 0:43:41 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00554**
 Stddev .00049
 %RSD 8.8376

#1 **.00589**
 #2 **.00519**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3087.5	3006.2	24748.	2943.1
Stddev	7.0	7.7	46.	23.5
%RSD	.22820	.25628	.18756	.79784

#1	3092.4	3011.6	24715.	2959.7
#2	3082.5	3000.7	24781.	2926.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.867%	93.999%	98.466%	97.571%
Range				

Sample Name: 480-143479-e-2-b Acquired: 11/3/2018 0:47:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00078	-.00050	.00149	.17282	.12226
Stddev	.00023	.03579	.00174	.00006	.00038
%RSD	29.904	7177.0	116.89	.03355	.31464

#1	-.00095	-.02580	.00026	.17287	.12198
#2	-.00062	.02481	.00271	.17278	.12253

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	81.067	.00026	.0320	.00015
Stddev	.00013	.074	.00008	.0081	.00020
%RSD	2387.4	.09116	29.381	25.27	132.02

#1	.00009	81.015	.00020	.0377	.00001
#2	-.00008	81.120	.00031	.0263	.00029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	-.00123	.45553	1.8312	.00653
Stddev	.00012	.00094	.00196	.0495	.00032
%RSD	188.52	76.386	.42921	2.7026	4.9029

#1	.00002	-.00056	.45691	1.7962	.00676
#2	-.00015	-.00189	.45414	1.8662	.00630

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143479-e-2-b Acquired: 11/3/2018 0:47:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	42.556	.07412	.00143	21.627	.00104
Stddev	.051	.00007	.00017	.017	.00014
%RSD	.11877	.09401	11.908	.08078	13.646

#1	42.521	.07407	.00131	21.615	.00114
#2	42.592	.07417	.00155	21.639	.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00146	12.023	-.00200	-.00309	8.5585
Stddev	.00088	.012	.00238	.00227	.0303
%RSD	60.526	.10135	119.14	73.263	.35376

#1	.00209	12.032	-.00032	-.00149	8.5371
#2	.00084	12.015	-.00369	-.00470	8.5800

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00063	.89652	.00042	.00326	-.00148
Stddev	.00019	.00072	.00006	.00013	.00006
%RSD	29.324	.08003	13.813	4.1109	4.3396

#1	-.00050	.89602	.00046	.00336	-.00143
#2	-.00076	.89703	.00038	.00317	-.00152

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143479-e-2-b Acquired: 11/3/2018 0:47:20 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00145**
 Stddev .00076
 %RSD 52.403

#1 **.00199**
 #2 **.00092**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3135.3	3052.7	24705.	2947.7
Stddev	.6	1.3	25.	4.8
%RSD	.01964	.04134	.09933	.16122

#1	3134.9	3051.8	24687.	2951.1
#2	3135.8	3053.6	24722.	2944.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.42%	95.454%	98.292%	97.726%
Range				

Sample Name: 480-143480-e-1-b Acquired: 11/3/2018 0:50:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	-.00273	.00243	.12094	.05542
Stddev	.00107	.01843	.00159	.00024	.00011
%RSD	4529.9	675.17	65.508	.19928	.19194

#1	.00074	-.01576	.00130	.12111	.05535
#2	-.00078	.01030	.00355	.12076	.05550

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	164.73	.00032	-.0098	.00152
Stddev	.00014	.15	.00014	.0192	.00019
%RSD	62.458	.09348	44.244	197.4	12.409

#1	.00013	164.84	.00022	.0039	.00165
#2	.00033	164.62	.00042	-.0234	.00139

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00015	.23190	11.869	.00639
Stddev	.00017	.00132	.00321	.037	.00051
%RSD	160.69	862.27	1.3834	.31529	8.0173

#1	-.00001	-.00109	.23417	11.843	.00603
#2	.00023	.00078	.22963	11.896	.00676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-1-b Acquired: 11/3/2018 0:50:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	39.362	.54618	-.00049	15.710	.00337
Stddev	.078	.00076	.00018	.054	.00030
%RSD	.19891	.13939	37.201	.34133	9.0338

#1	39.417	.54672	-.00062	15.748	.00316
#2	39.306	.54564	-.00036	15.672	.00359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00130	71.735	-.00243	-.00490	4.6442
Stddev	.00024	.087	.00248	.00247	.0336
%RSD	18.399	.12091	102.20	50.445	.72319

#1	.00146	71.673	-.00418	-.00315	4.6205
#2	.00113	71.796	-.00067	-.00665	4.6680

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	.21459	-.00101	.00327	-.00142
Stddev	.00045	.00012	.00043	.00135	.00038
%RSD	528.54	.05743	43.171	41.143	26.635

#1	.00023	.21451	-.00070	.00423	-.00116
#2	-.00040	.21468	-.00131	.00232	-.00169

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-1-b Acquired: 11/3/2018 0:50:58 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00278**
 Stddev .00025
 %RSD 8.8439

#1 **.00261**
 #2 **.00296**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3116.6	3035.9	24770.	2928.6
Stddev	2.6	4.1	101.	2.4
%RSD	.08227	.13591	.40932	.08092

#1	3118.4	3038.8	24699.	2926.9
#2	3114.8	3033.0	24842.	2930.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.81%	94.927%	98.553%	97.090%
Range				

Sample Name: 480-143480-e-2-b Acquired: 11/3/2018 0:54:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	-.03665	.00165	.11353	.08858
Stddev	.00019	.02149	.00021	.00074	.00035
%RSD	37.105	58.631	12.742	.64877	.40047

#1	-.00037	-.05184	.00150	.11405	.08883
#2	-.00063	-.02146	.00180	.11301	.08833

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	117.54	.00041	.0402	.00037
Stddev	.00008	.11	.00013	.0281	.00022
%RSD	71.240	.09678	30.477	69.72	61.074

#1	.00017	117.62	.00050	.0601	.00021
#2	.00006	117.46	.00032	.0204	.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00500	.00121	.07024	6.0895	.00561
Stddev	.00028	.00011	.00438	.0111	.00265
%RSD	5.5586	9.1536	6.2309	.18205	47.234

#1	.00519	.00114	.06714	6.0973	.00373
#2	.00480	.00129	.07333	6.0816	.00748

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-2-b Acquired: 11/3/2018 0:54:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	41.082	.38611	.00001	18.529	.00728
Stddev	.274	.00191	.00028	.014	.00032
%RSD	.66749	.49449	4511.4	.07339	4.3754

#1	41.276	.38746	.00020	18.539	.00705
#2	40.888	.38476	-.00019	18.519	.00750

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00055	57.913	-.00290	-.00394	6.9452
Stddev	.00084	.073	.00037	.00035	.0172
%RSD	154.26	.12604	12.691	8.9129	.24739

#1	.00114	57.965	-.00264	-.00419	6.9331
#2	-.00005	57.862	-.00316	-.00369	6.9574

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	.13474	.00059	.00323	-.00155
Stddev	.00025	.00030	.00028	.00003	.00022
%RSD	223.18	.22281	48.007	.89369	14.180

#1	-.00028	.13453	.00039	.00325	-.00171
#2	.00006	.13495	.00079	.00321	-.00140

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-2-b Acquired: 11/3/2018 0:54:37 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00362**
 Stddev .00031
 %RSD 8.4941

#1 **.00341**
 #2 **.00384**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3129.2	3052.9	24800.	2935.0
Stddev	3.4	5.6	138.	12.2
%RSD	.10799	.18494	.55745	.41441

#1	3126.8	3048.9	24702.	2943.6
#2	3131.6	3056.9	24897.	2926.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.22%	95.460%	98.670%	97.305%
Range				

Sample Name: 480-143480-e-3-b Acquired: 11/3/2018 0:58:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	-.02627	.00095	.14274	.20421
Stddev	.00030	.01308	.00104	.00019	.00064
%RSD	35.428	49.794	108.92	.13099	.31208

#1	-.00064	-.01702	.00169	.14261	.20466
#2	-.00106	-.03552	.00022	.14288	.20376

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	152.98	.00026	.0157	.00083
Stddev	.00008	.30	.00021	.0082	.00021
%RSD	211.07	.19843	81.545	51.93	25.330

#1	.00009	152.76	.00041	.0215	.00068
#2	-.00002	153.19	.00011	.0099	.00098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00054	-.00125	3.5406	11.258	.00837
Stddev	.00007	.00090	.0022	.063	.00031
%RSD	12.439	72.075	.06307	.56320	3.7364

#1	.00049	-.00061	3.5390	11.303	.00815
#2	.00059	-.00188	3.5421	11.213	.00860

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-3-b Acquired: 11/3/2018 0:58:16 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	57.202	.50513	.00079	56.820	.00214
Stddev	.060	.00110	.00002	.059	.00009
%RSD	.10459	.21742	2.0056	.10467	4.1290

#1	57.244	.50591	.00080	56.778	.00220
#2	57.160	.50436	.00078	56.862	.00208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00195	77.971	-.00155	-.00384	12.919
Stddev	.00015	.119	.00016	.00234	.153
%RSD	7.6358	.15289	10.656	60.993	1.1810

#1	.00206	77.887	-.00143	-.00549	12.811
#2	.00184	78.055	-.00166	-.00218	13.027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00032	.24996	.00016	.00293	-.00067
Stddev	.00014	.00091	.00052	.00098	.00044
%RSD	44.369	.36332	322.44	33.569	64.915

#1	.00042	.24931	.00053	.00363	-.00098
#2	.00022	.25060	-.00021	.00224	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-3-b Acquired: 11/3/2018 0:58:16 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01140**
 Stddev .00024
 %RSD 2.0984

#1 **.01123**
 #2 **.01157**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3088.6	3027.0	24814.	2892.0
Stddev	.0	3.4	11.	19.9
%RSD	.00041	.11382	.04447	.68859

#1	3088.6	3029.5	24821.	2906.1
#2	3088.6	3024.6	24806.	2877.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.904%	94.651%	98.726%	95.879%
Range				

Sample Name: 480-143480-e-4-b Acquired: 11/3/2018 1:01:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00154	-.05790	.00078	.04336	.13543
Stddev	.00005	.03362	.00064	.00047	.00058
%RSD	3.0716	58.061	81.656	1.0895	.43043

#1	-.00157	-.03413	.00033	.04303	.13502
#2	-.00150	-.08168	.00123	.04370	.13585

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	114.11	.00032	-.0781	.00019
Stddev	.00014	.34	.00001	.0052	.00004
%RSD	199.10	.29564	3.2768	6.720	22.121

#1	-.00003	114.35	.00033	-.0744	.00016
#2	.00017	113.87	.00031	-.0818	.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00092	-.00096	.01438	2.8812	.00929
Stddev	.00014	.00062	.00467	.0108	.00013
%RSD	15.352	64.432	32.494	.37554	1.3607

#1	.00082	-.00052	.01768	2.8888	.00938
#2	.00102	-.00140	.01108	2.8735	.00920

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-4-b Acquired: 11/3/2018 1:01:55 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.456	.23787	.00063	165.48	.02207
Stddev	.143	.00228	.00016	.28	.00001
%RSD	.25722	.95936	25.404	.17164	.04312

#1	55.557	.23948	.00052	165.28	.02208
#2	55.356	.23626	.00075	165.68	.02206

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	18.956	-.00144	-.00207	8.5702
Stddev	.00035	.031	.00042	.00010	.0122
%RSD	90.890	.16567	29.249	4.6374	.14246

#1	.00014	18.979	-.00174	-.00201	8.5789
#2	.00063	18.934	-.00114	-.00214	8.5616

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.14975	.00054	.00329	-.00175
Stddev	.00054	.00017	.00029	.00041	.00037
%RSD	110.46	.11273	53.785	12.423	21.110

#1	.00011	.14987	.00074	.00300	-.00149
#2	.00087	.14963	.00033	.00357	-.00201

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143480-e-4-b Acquired: 11/3/2018 1:01:55 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00313**
 Stddev .00000
 %RSD .14100

#1 **.00314**
 #2 **.00313**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3069.8	3027.1	24944.	2904.3
Stddev	8.8	.5	63.	17.0
%RSD	.28735	.01507	.25151	.58362

#1	3076.1	3026.8	24900.	2892.3
#2	3063.6	3027.5	24989.	2916.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.297%	94.654%	99.245%	96.284%
Range				

Sample Name: ccv-4973140 Acquired: 11/3/2018 1:05:35 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56053	25.752	.52605	.51010	.51264
Stddev	.00379	.080	.00157	.00123	.00239
%RSD	.67691	.31071	.29765	.24083	.46592

#1	.56322	25.808	.52494	.50924	.51433
#2	.55785	25.695	.52716	.51097	.51095

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51453	26.590	.52871	.0045	.50530
Stddev	.00266	.150	.00070	.0334	.00068
%RSD	.51625	.56459	.13226	743.4	.13504

#1	.51641	26.696	.52921	-.0191	.50579
#2	.51265	26.484	.52822	.0281	.50482

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51597	.52384	26.425	25.405	.50609
Stddev	.00413	.00676	.090	.051	.00093
%RSD	.80032	1.2904	.33965	.20096	.18300

#1	.51889	.52862	26.488	25.441	.50544
#2	.51305	.51906	26.361	25.369	.50675

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 1:05:35 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.099	.53431	.50723	25.406	.50330
Stddev	.236	.00331	.00110	.090	.00075
%RSD	.90264	.62022	.21753	.35381	.14958

#1	26.265	.53665	.50801	25.469	.50384
#2	25.932	.53197	.50645	25.342	.50277

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50813	26.952	.52016	.52061	26.247
Stddev	.00092	.021	.00003	.00190	.095
%RSD	.18199	.07737	.00594	.36416	.36361

#1	.50748	26.967	.52014	.52195	26.314
#2	.50879	26.937	.52018	.51927	26.179

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53008	.53074	.52519	.49116	.51189
Stddev	.00148	.00254	.00087	.00005	.00249
%RSD	.27903	.47872	.16562	.00995	.48686

#1	.53113	.53254	.52580	.49113	.51365
#2	.52904	.52894	.52457	.49119	.51012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 1:05:35 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.52169**
Stddev .00206
%RSD .39564

#1 **.52315**
#2 **.52023**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3156.2	3102.2	24724.	2920.8
Stddev	1.0	2.8	224.	6.1
%RSD	.03036	.08911	.90460	.20872
#1	3155.5	3100.3	24566.	2916.5
#2	3156.8	3104.2	24882.	2925.1

Sample Name: ccb-4975309 Acquired: 11/3/2018 1:09:02 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	-.02494	.00194	-.00040	.00002
Stddev	.00116	.02458	.00081	.00038	.00001
%RSD	166.72	98.541	41.753	94.934	76.268

#1	.00012	-.04232	.00137	-.00013	.00003
#2	-.00151	-.00756	.00251	-.00066	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00182	-.00001	-.0573	-.00009
Stddev	.00019	.00245	.00000	.0627	.00018
%RSD	573.12	134.60	12.170	109.4	191.06

#1	-.00017	.00356	-.00001	-.0130	.00003
#2	.00010	.00009	-.00001	-.1017	-.00022

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	-.00180	-.00182	.01915	-.00267
Stddev	.00016	.00051	.00009	.00957	.00061
%RSD	147.71	28.046	4.9946	49.959	22.992

#1	-.00021	-.00216	-.00188	.02591	-.00310
#2	.00000	-.00144	-.00175	.01238	-.00223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 1:09:02 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00112	.00009	.00079	-.03620	-.00012
Stddev	.00116	.00006	.00024	.00065	.00011
%RSD	103.62	68.246	30.278	1.7918	95.714

#1	.00195	.00005	.00062	-.03666	-.00019
#2	.00030	.00014	.00096	-.03574	-.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00108	-.00020	-.00220	-.00352	-.00922
Stddev	.00029	.00003	.00033	.00140	.00567
%RSD	27.040	14.067	14.806	39.727	61.567

#1	-.00129	-.00022	-.00197	-.00253	-.01323
#2	-.00087	-.00018	-.00243	-.00451	-.00520

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00056	-.00008	.00057	.00014	-.00114
Stddev	.00037	.00016	.00026	.00006	.00015
%RSD	66.923	186.96	45.953	39.268	13.505

#1	.00029	-.00019	.00076	.00010	-.00104
#2	.00082	.00003	.00038	.00018	-.00125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 1:09:02 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00055**
 Stddev .00030
 %RSD 54.170

#1 **-.00034**
 #2 **-.00076**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3148.5	3104.3	24519.	2908.1
Stddev	5.5	1.2	124.	13.1
%RSD	.17541	.03822	.50696	.45126
#1	3144.6	3103.4	24607.	2917.4
#2	3152.4	3105.1	24431.	2898.8

Sample Name: ccvl-4970377 Acquired: 11/3/2018 1:12:46 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00496	W .12397	.01551	.01885	.00211
Stddev	.00016	.00569	.00120	.00020	.00001
%RSD	3.3109	4.5896	7.7319	1.0367	.56752

#1	.00508	.11995	.01466	.01899	.00211
#2	.00485	.12799	.01636	.01871	.00212

Check ?	Chk Pass	Chk Warn	Chk Pass	Chk Pass	Chk Pass
Value		.20000			
Range		-30.000%			

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00235	.54695	.00202	.0105	.00418
Stddev	.00013	.01115	.00001	.0466	.00010
%RSD	5.3281	2.0380	.34503	442.7	2.4811

#1	.00243	.55483	.00203	.0434	.00425
#2	.00226	.53907	.00202	-.0224	.00410

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00392	.00820	.05136	.49347	.02857
Stddev	.00016	.00091	.00435	.03531	.00141
%RSD	4.1429	11.087	8.4751	7.1556	4.9448

#1	.00403	.00755	.04829	.46851	.02758
#2	.00380	.00884	.05444	.51844	.02957

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 1:12:46 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20852	.00306	.00956	.93229	.01026
Stddev	.00299	.00006	.00014	.00332	.00018
%RSD	1.4354	2.0810	1.4237	.35624	1.7618

#1	.21063	.00311	.00947	.92994	.01039
#2	.20640	.00302	.00966	.93464	.01013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01062	.20524	.01811	.02169	.51174
Stddev	.00055	.00057	.00086	.00045	.02038
%RSD	5.1705	.27851	4.7407	2.0722	3.9819

#1	.01023	.20484	.01872	.02201	.49733
#2	.01101	.20565	.01751	.02138	.52615

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01001	.00518	.00579	.02171	.00455
Stddev	.00024	.00022	.00027	.00079	.00002
%RSD	2.3968	4.1642	4.7369	3.6327	.41073

#1	.01018	.00503	.00559	.02226	.00456
#2	.00984	.00534	.00598	.02115	.00453

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 1:12:46 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01170**
 Stddev .00027
 %RSD 2.3496

#1 **.01151**
 #2 **.01189**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3196.1	3158.7	24755.	2926.9
Stddev	.3	5.6	12.	7.6
%RSD	.00938	.17595	.04739	.25999
#1	3195.9	3162.7	24747.	2932.2
#2	3196.4	3154.8	24763.	2921.5

Sample Name: 480-143481-e-1-b Acquired: 11/3/2018 1:16:28 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	-.04321	.00140	.02535	.06531
Stddev	.00003	.01456	.00116	.00053	.00014
%RSD	2.9549	33.689	82.585	2.1067	.21573

#1	-.00087	-.03292	.00058	.02572	.06541
#2	-.00083	-.05350	.00222	.02497	.06521

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	108.67	.00027	.0060	.00052
Stddev	.00015	.63	.00010	.0362	.00005
%RSD	120.83	.58299	36.097	599.2	8.7306

#1	.00023	109.12	.00034	-.0196	.00055
#2	.00002	108.22	.00020	.0316	.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00027	.00146	.90969	.00482
Stddev	.00011	.00001	.00046	.04783	.00155
%RSD	523.39	3.7656	31.250	5.2583	32.105

#1	-.00005	-.00026	.00178	.94352	.00373
#2	.00010	-.00028	.00114	.87587	.00591

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-1-b Acquired: 11/3/2018 1:16:28 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	44.597	.05601	.00168	5.1036	.00487
Stddev	.040	.00006	.00043	.0009	.00030
%RSD	.09058	.11297	25.663	.01737	6.1030

#1	44.626	.05605	.00137	5.1030	.00466
#2	44.569	.05596	.00198	5.1042	.00509

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00097	22.768	-.00173	-.00241	5.8233
Stddev	.00063	.035	.00002	.00409	.0166
%RSD	65.674	.15439	1.0502	170.01	.28567

#1	.00141	22.793	-.00172	-.00530	5.8116
#2	.00052	22.743	-.00174	.00049	5.8351

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.14182	-.00016	.00324	-.00136
Stddev	.00022	.00079	.00019	.00056	.00019
%RSD	1039.8	.55422	115.64	17.419	13.899

#1	-.00018	.14237	-.00029	.00284	-.00149
#2	.00013	.14126	-.00003	.00364	-.00122

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-1-b Acquired: 11/3/2018 1:16:28 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01057**
 Stddev .00027
 %RSD 2.5079

#1 **.01075**
 #2 **.01038**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3130.8	3063.4	24817.	2943.7
Stddev	1.9	1.2	74.	24.6
%RSD	.05979	.03816	.29656	.83552

#1	3129.4	3064.2	24869.	2926.3
#2	3132.1	3062.6	24765.	2961.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.27%	95.788%	98.740%	97.591%
Range				

Sample Name: 480-143481-e-2-b Acquired: 11/3/2018 1:20:07 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00074	-.02962	.00403	.05565	.02128
Stddev	.00050	.00241	.00190	.00043	.00006
%RSD	67.860	8.1458	47.204	.76908	.27363

#1	-.00039	-.03132	.00268	.05535	.02124
#2	-.00110	-.02791	.00537	.05596	.02132

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	527.45	.00034	-.0025	.00835
Stddev	.00009	1.51	.00021	.0338	.00012
%RSD	140.08	.28661	60.550	1353.	1.4209

#1	-.00000	528.52	.00049	-.0264	.00827
#2	-.00013	526.38	.00020	.0214	.00843

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00186	-.00126	16.854	4.8495	.04825
Stddev	.00044	.00052	.070	.0065	.00094
%RSD	23.685	41.211	.41709	.13493	1.9462

#1	.00217	-.00163	16.904	4.8448	.04891
#2	.00155	-.00089	16.804	4.8541	.04759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-2-b Acquired: 11/3/2018 1:20:07 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	217.77	1.8508	.00369	96.310	.03804
Stddev	.80	.0054	.00006	.076	.00015
%RSD	.36603	.29208	1.6224	.07910	.39059

#1	217.21	1.8470	.00373	96.363	.03794
#2	218.34	1.8546	.00365	96.256	.03815

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00041	F 433.59	-.00374	-.00368	8.5520
Stddev	.00035	1.06	.00085	.00073	.0153
%RSD	85.506	.24397	22.693	19.915	.17833

#1	.00066	432.84	-.00314	-.00316	8.5628
#2	.00016	434.33	-.00434	-.00419	8.5412

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.65567	-.00123	.00418	-.00238
Stddev	.00038	.00020	.00027	.00084	.00047
%RSD	248.34	.03033	21.677	20.199	19.539

#1	.00042	.65581	-.00104	.00358	-.00271
#2	-.00012	.65553	-.00141	.00478	-.00205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-2-b Acquired: 11/3/2018 1:20:07 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00256**
 Stddev .00032
 %RSD 12.554

#1 **.00234**
 #2 **.00279**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2912.5	2901.6	24357.	2845.4
Stddev	.2	7.0	22.	3.0
%RSD	.00796	.24288	.09109	.10482

#1	2912.7	2906.6	24373.	2847.5
#2	2912.4	2896.6	24341.	2843.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	94.209%	90.729%	96.908%	94.332%
Range				

Sample Name: 480-143481-e-3-b Acquired: 11/3/2018 1:23:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00069	-.02649	.00025	.10475	.26953
Stddev	.00025	.01925	.00005	.00009	.00029
%RSD	36.272	72.655	20.166	.08249	.10906

#1	-.00052	-.04010	.00021	.10469	.26932
#2	-.00087	-.01288	.00029	.10481	.26973

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	100.24	.00049	-.0296	.00007
Stddev	.00017	.53	.00006	.0141	.00008
%RSD	376.03	.53161	12.436	47.73	128.22

#1	-.00007	100.62	.00053	-.0196	.00013
#2	.00016	99.868	.00044	-.0396	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00066	-.00127	1.7293	2.0433	.00734
Stddev	.00021	.00074	.0331	.0909	.00303
%RSD	31.473	58.262	1.9161	4.4497	41.316

#1	.00080	-.00075	1.7527	2.1076	.00520
#2	.00051	-.00180	1.7058	1.9790	.00949

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-3-b Acquired: 11/3/2018 1:23:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	49.168	.05702	.00040	24.988	.00025
Stddev	.107	.00027	.00001	.154	.00014
%RSD	.21856	.47198	3.1923	.61444	55.944

#1	49.092	.05683	.00040	25.097	.00035
#2	49.244	.05721	.00039	24.879	.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00192	12.503	-.00317	-.00393	10.379
Stddev	.00022	.006	.00326	.00290	.011
%RSD	11.405	.04928	102.70	73.861	.10869

#1	.00177	12.508	-.00087	-.00188	10.371
#2	.00208	12.499	-.00547	-.00598	10.387

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.92420	.00016	.00348	-.00129
Stddev	.00056	.00274	.00121	.00030	.00046
%RSD	118.48	.29685	746.98	8.5757	35.691

#1	.00008	.92614	-.00069	.00327	-.00161
#2	.00087	.92226	.00102	.00369	-.00096

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-3-b Acquired: 11/3/2018 1:23:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00152**
 Stddev .00034
 %RSD 22.088

#1 **.00176**
 #2 **.00128**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3113.7	3053.5	24581.	2930.2
Stddev	4.3	4.7	20.	16.6
%RSD	.13815	.15423	.08115	.56626

#1	3110.6	3050.2	24595.	2918.5
#2	3116.7	3056.9	24567.	2942.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.71%	95.479%	97.801%	97.145%
Range				

Sample Name: 480-143481-e-4-b Acquired: 11/3/2018 1:27:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00083	-.06770	.00313	.13090	.09252
Stddev	.00030	.01633	.00179	.00032	.00012
%RSD	36.041	24.117	57.095	.24347	.13333

#1	-.00062	-.07925	.00186	.13112	.09260
#2	-.00105	-.05616	.00439	.13067	.09243

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00012	73.929	.00030	-.0149	.00057
Stddev	.00002	.180	.00012	.0563	.00001
%RSD	12.921	.24326	39.513	378.9	1.1376

#1	.00011	73.802	.00022	.0249	.00057
#2	.00014	74.056	.00039	-.0547	.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	-.00131	.13428	2.3822	.00746
Stddev	.00040	.00036	.00260	.0548	.00129
%RSD	172.95	27.219	1.9335	2.2982	17.277

#1	.00005	-.00156	.13244	2.3434	.00655
#2	-.00051	-.00106	.13611	2.4209	.00837

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-4-b Acquired: 11/3/2018 1:27:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	42.107	.03923	.00095	21.610	.00199
Stddev	.048	.00036	.00014	.006	.00035
%RSD	.11453	.93033	14.554	.02905	17.724

#1	42.141	.03949	.00104	21.615	.00174
#2	42.073	.03897	.00085	21.606	.00224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00170	10.796	-.00381	-.00309	8.4537
Stddev	.00177	.009	.00234	.00009	.0082
%RSD	104.06	.08483	61.259	2.9367	.09728

#1	.00045	10.803	-.00546	-.00303	8.4596
#2	.00294	10.790	-.00216	-.00315	8.4479

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	1.6706	-.00035	.00318	-.00135
Stddev	.00025	.0015	.00010	.00056	.00078
%RSD	639.68	.09027	29.279	17.685	57.639

#1	-.00014	1.6696	-.00042	.00278	-.00080
#2	.00021	1.6717	-.00028	.00358	-.00190

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-4-b Acquired: 11/3/2018 1:27:25 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00181**
 Stddev .00008
 %RSD 4.2733

#1 **.00176**
 #2 **.00187**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3120.8	3062.6	24761.	2923.3
Stddev	2.2	2.3	41.	9.5
%RSD	.07054	.07556	.16665	.32538

#1	3122.4	3061.0	24732.	2930.0
#2	3119.2	3064.3	24790.	2916.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.95%	95.763%	98.516%	96.915%
Range				

Sample Name: 480-143481-e-5-b Acquired: 11/3/2018 1:31:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00103	-.04755	.00169	.19196	.32260
Stddev	.00061	.02788	.00025	.00033	.00035
%RSD	59.198	58.636	14.717	.16942	.10909

#1	-0.00060	-.02783	.00187	.19173	.32285
#2	-.00146	-.06726	.00152	.19219	.32235

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	98.787	.00041	-.0044	.00006
Stddev	.00007	.001	.00003	.0653	.00006
%RSD	209.31	.00147	8.2780	1492.	90.193

#1	-0.00009	98.786	.00038	-.0505	.00002
#2	.00002	98.788	.00043	.0418	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00230	1.6203	3.8360	.00627
Stddev	.00004	.00010	.0029	.0166	.00228
%RSD	38.891	4.1424	.17850	.43188	36.332

#1	-0.00012	-.00237	1.6223	3.8477	.00789
#2	-.00007	-.00223	1.6182	3.8243	.00466

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-5-b Acquired: 11/3/2018 1:31:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	59.998	.02413	.00070	19.609	.00041
Stddev	.088	.00004	.00001	.003	.00005
%RSD	.14745	.16523	1.0319	.01542	11.343

#1	60.060	.02411	.00070	19.606	.00038
#2	59.935	.02416	.00071	19.611	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00201	42.354	-.00325	-.00723	10.483
Stddev	.00086	.046	.00004	.00067	.031
%RSD	42.740	.10879	1.1299	9.3220	.29670

#1	.00262	42.387	-.00328	-.00770	10.505
#2	.00140	42.321	-.00323	-.00675	10.461

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	1.7004	.00009	.00258	-.00126
Stddev	.00038	.0024	.00019	.00055	.00070
%RSD	291.46	.13857	202.46	21.364	55.253

#1	-.00040	1.7020	-.00004	.00297	-.00077
#2	.00014	1.6987	.00023	.00219	-.00176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143481-e-5-b Acquired: 11/3/2018 1:31:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00139**
 Stddev .00041
 %RSD 29.572

#1 **.00110**
 #2 **.00168**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3098.9	3057.4	24863.	2929.5
Stddev	6.2	2.3	11.	7.1
%RSD	.20150	.07537	.04493	.24102

#1	3103.3	3059.0	24871.	2934.5
#2	3094.5	3055.8	24855.	2924.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.24%	95.600%	98.922%	97.121%
Range				

Sample Name: 480-143485-e-1-d Acquired: 11/3/2018 1:34:41 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00059	-.01950	.00026	.23409	.12347
Stddev	.00022	.00356	.00130	.00076	.00029
%RSD	38.309	18.229	498.04	.32313	.23748

#1	-.00043	-.02202	.00118	.23355	.12368
#2	-.00075	-.01699	-.00066	.23462	.12326

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	83.234	.00026	-.0022	.00044
Stddev	.00013	.307	.00021	.0317	.00014
%RSD	230.17	.36857	80.514	1413.	31.580

#1	-.00004	83.017	.00041	-.0247	.00054
#2	.00015	83.451	.00011	.0202	.00034

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00086	-.00081	.12791	4.0028	.00696
Stddev	.00027	.00018	.00358	.0127	.00309
%RSD	31.979	21.730	2.8024	.31769	44.407

#1	.00067	-.00069	.12537	3.9938	.00915
#2	.00105	-.00094	.13044	4.0118	.00478

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-1-d Acquired: 11/3/2018 1:34:41 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	40.941	.00468	.00176	8.3076	.00113
Stddev	.117	.00005	.00027	.0074	.00005
%RSD	.28677	1.0362	15.507	.08912	4.8128

#1	41.024	.00465	.00195	8.3023	.00116
#2	40.858	.00472	.00157	8.3128	.00109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00121	18.910	-.00153	-.00569	5.4958
Stddev	.00089	.020	.00038	.00196	.0066
%RSD	73.540	.10326	24.802	34.410	.12010

#1	.00058	18.896	-.00180	-.00707	5.4912
#2	.00184	18.924	-.00126	-.00430	5.5005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.75930	.00038	.00198	-.00150
Stddev	.00062	.00370	.00027	.00060	.00008
%RSD	255.11	.48736	70.906	30.329	5.3568

#1	.00068	.75669	.00058	.00241	-.00145
#2	-.00019	.76192	.00019	.00156	-.00156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-1-d Acquired: 11/3/2018 1:34:41 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00154**
 Stddev .00045
 %RSD 29.246

#1 **.00185**
 #2 **.00122**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3114.3	3063.1	24921.	2914.5
Stddev	2.7	5.0	102.	7.2
%RSD	.08550	.16474	.40878	.24848

#1	3116.1	3066.7	24848.	2919.6
#2	3112.4	3059.5	24993.	2909.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.73%	95.779%	99.151%	96.622%
Range				

Sample Name: 480-143485-e-2-b Acquired: 11/3/2018 1:38:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	-.02537	-.00016	.28547	.10907
Stddev	.00053	.01335	.00265	.00013	.00015
%RSD	65.115	52.619	1710.0	.04662	.13404

#1	-.00044	-.01593	.00172	.28538	.10897
#2	-.00119	-.03481	-.00203	.28557	.10917

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	194.40	.00024	.0369	.00031
Stddev	.00005	1.59	.00004	.0676	.00013
%RSD	55.640	.81821	17.984	183.2	41.369

#1	.00013	195.52	.00021	.0847	.00022
#2	.00006	193.27	.00027	-.0109	.00040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00125	.00293	.01441	21.611	.04217
Stddev	.00061	.00069	.00073	.098	.00214
%RSD	48.981	23.538	5.0373	.45255	5.0708

#1	.00082	.00342	.01493	21.680	.04368
#2	.00168	.00245	.01390	21.542	.04066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-2-b Acquired: 11/3/2018 1:38:21 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	55.781	.00093	.00733	15.370	.00452
Stddev	.101	.00011	.00039	.049	.00014
%RSD	.18173	11.986	5.2878	.31779	3.0954

#1	55.853	.00101	.00706	15.404	.00462
#2	55.709	.00085	.00761	15.335	.00442

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00137	F 113.90	-.00101	-.00258	8.7044
Stddev	.00075	.37	.00197	.00007	.0586
%RSD	54.756	.32868	194.32	2.6653	.67304

#1	.00190	113.64	-.00240	-.00263	8.7458
#2	.00084	114.16	.00038	-.00253	8.6630

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00018	.56181	.00049	.00406	-.00059
Stddev	.00039	.00249	.00065	.00002	.00034
%RSD	217.08	.44287	133.63	.41380	58.493

#1	.00010	.56357	.00094	.00407	-.00083
#2	-.00045	.56005	.00003	.00404	-.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-2-b Acquired: 11/3/2018 1:38:21 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00286**
 Stddev .00007
 %RSD 2.4463

#1 **.00291**
 #2 **.00281**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3085.6	3036.7	24816.	2919.6
Stddev	3.5	4.2	124.	37.8
%RSD	.11192	.13757	.49872	1.2943

#1	3083.1	3039.7	24728.	2892.8
#2	3088.0	3033.8	24903.	2946.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.805%	94.953%	98.734%	96.792%
Range				

Sample Name: 480-143485-e-3-b Acquired: 11/3/2018 1:41:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	.07039	.00105	.17466	.08832
Stddev	.00071	.02023	.00069	.00044	.00004
%RSD	85.273	28.745	65.496	.25194	.04392

#1	-.00033	.05608	.00056	.17435	.08835
#2	-.00134	.08470	.00154	.17497	.08829

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	120.21	.00048	.0251	.01623
Stddev	.00001	.60	.00005	.0157	.00002
%RSD	10.679	.50150	9.5488	62.32	.13806

#1	.00012	119.78	.00051	.0141	.01622
#2	.00014	120.64	.00045	.0362	.01625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	-.00128	3.1140	3.9025	.01182
Stddev	.00005	.00022	.0186	.0438	.00012
%RSD	11.333	17.192	.59723	1.1230	.98854

#1	.00046	-.00144	3.1008	3.8715	.01190
#2	.00040	-.00113	3.1271	3.9334	.01174

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-3-b Acquired: 11/3/2018 1:41:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	62.725	.02972	.00596	16.177	.00333
Stddev	.133	.00006	.00010	.026	.00059
%RSD	.21278	.20072	1.6101	.16246	17.748

#1	62.820	.02977	.00603	16.158	.00291
#2	62.631	.02968	.00589	16.195	.00374

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00150	32.042	-.00324	-.00436	8.2847
Stddev	.00146	.020	.00115	.00286	.0858
%RSD	97.211	.06242	35.597	65.657	1.0357

#1	.00253	32.056	-.00405	-.00233	8.2240
#2	.00047	32.028	-.00242	-.00638	8.3454

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	.64345	.00070	.00238	-.00160
Stddev	.00039	.00298	.00048	.00172	.00022
%RSD	268.97	.46322	68.567	72.310	13.874

#1	.00013	.64134	.00104	.00360	-.00176
#2	-.00042	.64556	.00036	.00116	-.00144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-3-b Acquired: 11/3/2018 1:41:59 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00264**
 Stddev .00077
 %RSD 29.178

#1 **.00210**
 #2 **.00319**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3099.3	3037.1	24463.	2927.8
Stddev	2.8	6.0	47.	9.6
%RSD	.08941	.19861	.19405	.32942

#1	3101.2	3041.3	24429.	2934.6
#2	3097.3	3032.8	24496.	2920.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.25%	94.964%	97.329%	97.064%
Range				

Sample Name: 480-143485-e-4-b Acquired: 11/3/2018 1:45:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00082	-.02507	.00284	.67546	.16909
Stddev	.00064	.03088	.00131	.00152	.00006
%RSD	78.573	123.18	46.251	.22529	.03631

#1	-.00127	-.00323	.00377	.67438	.16913
#2	-.00036	-.04690	.00191	.67654	.16905

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	120.72	.00038	-.0192	.00002
Stddev	.00012	.40	.00003	.0091	.00003
%RSD	92.879	.33434	6.7047	47.44	126.58

#1	.00004	121.01	.00040	-.0127	.00000
#2	.00021	120.44	.00036	-.0256	.00004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.00120	8.8247	2.7408	.02032
Stddev	.00017	.00020	.0625	.0318	.00129
%RSD	97.951	16.999	.70794	1.1609	6.3602

#1	.00029	-.00135	8.8688	2.7183	.01941
#2	.00005	-.00106	8.7805	2.7633	.02124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-4-b Acquired: 11/3/2018 1:45:38 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	81.583	.09794	.00161	68.410	.00065
Stddev	.245	.00016	.00004	.187	.00020
%RSD	.30010	.16623	2.4617	.27333	31.764

#1	81.756	.09806	.00159	68.542	.00079
#2	81.410	.09783	.00164	68.278	.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00139	.12797	-.00380	-.00507	10.809
Stddev	.00190	.00322	.00071	.00103	.041
%RSD	136.32	2.5149	18.753	20.333	.37968

#1	.00005	.13025	-.00430	-.00580	10.838
#2	.00273	.12570	-.00330	-.00434	10.779

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	2.6721	.00032	.00366	-.00244
Stddev	.00079	.0049	.00026	.00038	.00081
%RSD	529.50	.18280	79.328	10.282	33.209

#1	-.00041	2.6755	.00014	.00339	-.00187
#2	.00071	2.6686	.00051	.00392	-.00301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-e-4-b Acquired: 11/3/2018 1:45:38 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00193**
 Stddev .00059
 %RSD 30.654

#1 **.00235**
 #2 **.00151**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3072.9	3023.5	24640.	2940.2
Stddev	.4	.7	103.	15.2
%RSD	.01452	.02426	.41790	.51704

#1	3072.6	3023.0	24567.	2929.4
#2	3073.2	3024.0	24712.	2950.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.397%	94.540%	98.033%	97.475%
Range				

Sample Name: ccv-4973140 Acquired: 11/3/2018 1:49:18 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56884	25.663	.53124	.50893	.51880
Stddev	.00164	.023	.00172	.00192	.00093
%RSD	.28851	.08998	.32300	.37629	.17906

#1	.57000	25.646	.53003	.50758	.51815
#2	.56767	25.679	.53245	.51029	.51946

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51146	26.870	.53180	.0128	.50754
Stddev	.00038	.104	.00018	.0004	.00003
%RSD	.07436	.38770	.03337	3.474	.00574

#1	.51173	26.943	.53168	.0125	.50752
#2	.51119	26.796	.53193	.0131	.50756

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51792	.53470	26.605	25.310	.50232
Stddev	.00113	.00151	.108	.019	.00101
%RSD	.21819	.28165	.40419	.07597	.20016

#1	.51713	.53577	26.681	25.323	.50161
#2	.51872	.53364	26.529	25.296	.50303

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 1:49:18 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.496	.54267	.50641	25.171	.50493
Stddev	.040	.00051	.00009	.072	.00037
%RSD	.15098	.09412	.01717	.28556	.07387

#1	26.524	.54231	.50635	25.222	.50519
#2	26.468	.54303	.50648	25.120	.50466

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51078	27.123	.52426	.52459	26.170
Stddev	.00095	.001	.00169	.00536	.006
%RSD	.18545	.00462	.32181	1.0218	.02279

#1	.51011	27.122	.52307	.52080	26.166
#2	.51145	27.124	.52546	.52838	26.174

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53253	.53271	.53133	.49026	.51326
Stddev	.00173	.00215	.00164	.00038	.00074
%RSD	.32556	.40423	.30817	.07845	.14326

#1	.53376	.53423	.53249	.48999	.51274
#2	.53131	.53118	.53017	.49053	.51378

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 1:49:18 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.53061**
 Stddev .00153
 %RSD .28879

#1 **.53170**
 #2 **.52953**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3163.0	3098.4	24569.	2936.3
Stddev	1.3	2.9	55.	1.6
%RSD	.04051	.09499	.22183	.05592
#1	3163.9	3100.5	24530.	2935.1
#2	3162.1	3096.4	24607.	2937.4

Sample Name: ccb-4975309 Acquired: 11/3/2018 1:52:44 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00112	-.03275	.00191	-.00033	.00004
Stddev	.00073	.00726	.00000	.00046	.00003
%RSD	64.652	22.164	.09833	141.85	63.575

#1	-.00061	-.02761	.00191	-.00065	.00002
#2	-.00164	-.03788	.00191	.00000	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00016	-.00079	.00031	.0063	.00015
Stddev	.00010	.00486	.00005	.0167	.00003
%RSD	59.490	614.61	15.671	265.8	17.709

#1	.00010	.00264	.00028	-.0055	.00017
#2	.00023	-.00423	.00035	.0181	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00068	-.00221	.00054	.03205	-.00036
Stddev	.00032	.00045	.00448	.10631	.00101
%RSD	47.397	20.211	830.41	331.69	277.18

#1	.00091	-.00189	-.00263	.10722	-.00108
#2	.00045	-.00252	.00371	-.04312	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 1:52:44 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00205	.00017	.00081	-.04140	.00006
Stddev	.00435	.00002	.00034	.00222	.00030
%RSD	212.28	11.454	41.714	5.3567	522.73

#1	.00512	.00019	.00057	-.04297	.00027
#2	-.00103	.00016	.00105	-.03983	-.00015

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	-.00262	-.00207	-.00132	-.04838
Stddev	.00053	.00190	.00058	.00074	.01958
%RSD	812.62	72.530	28.153	56.170	40.474

#1	-.00044	-.00128	-.00248	-.00184	-.06223
#2	.00031	-.00397	-.00166	-.00080	-.03454

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	-.00002	.00053	-.00019	-.00067
Stddev	.00047	.00006	.00005	.00088	.00023
%RSD	379.80	339.83	9.0722	463.40	34.143

#1	-.00046	-.00006	.00050	-.00081	-.00083
#2	.00021	.00002	.00056	.00043	-.00051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 1:52:44 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00006**
 Stddev .00038
 %RSD 640.86

#1 **.00033**
 #2 **-.00021**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.5	3099.5	24545.	2917.1
Stddev	3.2	1.8	89.	.6
%RSD	.10138	.05814	.36355	.02198
#1	3155.7	3098.2	24608.	2917.6
#2	3151.2	3100.7	24482.	2916.7

Sample Name: ccvl-4970377 Acquired: 11/3/2018 1:56:28 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00566	.20970	.01745	.01844	.00210
Stddev	.00043	.01217	.00098	.00008	.00002
%RSD	7.6471	5.8054	5.6234	.40863	.84251

#1	.00597	.21831	.01676	.01849	.00211
#2	.00535	.20110	.01815	.01839	.00209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00224	.54852	.00210	.0045	.00419
Stddev	.00016	.00254	.00008	.0252	.00005
%RSD	6.9906	.46299	3.7249	563.2	1.2243

#1	.00235	.54672	.00216	-.0133	.00423
#2	.00213	.55031	.00205	.0223	.00416

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00368	.00775	.05718	.45360	.02904
Stddev	.00009	.00168	.00242	.00584	.00152
%RSD	2.5603	21.655	4.2297	1.2868	5.2264

#1	.00374	.00656	.05547	.44947	.02797
#2	.00361	.00894	.05889	.45772	.03011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 1:56:28 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20583	.00303	.00937	.94628	.01068
Stddev	.00700	.00007	.00022	.00121	.00051
%RSD	3.4002	2.1665	2.3916	.12828	4.7454

#1	.21078	.00298	.00921	.94542	.01032
#2	.20088	.00308	.00953	.94714	.01104

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00949	.20447	.01854	.02134	.47677
Stddev	.00053	.00074	.00033	.00017	.03616
%RSD	5.5729	.36173	1.8019	.79589	7.5853

#1	.00986	.20395	.01877	.02122	.45120
#2	.00911	.20500	.01830	.02146	.50234

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01070	.00512	.00556	.02129	.00403
Stddev	.00056	.00002	.00002	.00055	.00049
%RSD	5.1898	.39760	.41212	2.5620	12.210

#1	.01030	.00510	.00554	.02091	.00368
#2	.01109	.00513	.00557	.02168	.00438

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 1:56:28 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01142**
 Stddev .00031
 %RSD 2.7346

#1 **.01120**
 #2 **.01165**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3182.0	3138.0	24661.	2902.3
Stddev	7.3	4.3	4.	4.2
%RSD	.22850	.13739	.01439	.14419
#1	3187.1	3141.0	24659.	2899.3
#2	3176.8	3134.9	24664.	2905.3

Sample Name: 480-143485-c-6-b Acquired: 11/3/2018 2:00:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00165	-.05070	.00119	.40963	.04142
Stddev	.00003	.07147	.00013	.00045	.00012
%RSD	1.9395	140.98	10.918	.11090	.28285

#1	-.00163	-.10124	.00109	.40931	.04150
#2	-.00167	-.00016	.00128	.40995	.04133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00001	92.745	.00031	-.0026	.00031
Stddev	.00005	.408	.00002	.0501	.00007
%RSD	524.14	.44015	8.0287	1893.	21.977

#1	-.00003	93.034	.00033	.0328	.00026
#2	.00004	92.456	.00029	-.0381	.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00208	-.00046	.00474	7.3950	.01194
Stddev	.00044	.00116	.00428	.0881	.00057
%RSD	21.155	252.39	90.392	1.1916	4.7442

#1	.00177	.00036	.00776	7.4573	.01234
#2	.00239	-.00128	.00171	7.3327	.01154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-c-6-b Acquired: 11/3/2018 2:00:09 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	47.388	.00602	.00138	13.422	.00805
Stddev	.079	.00001	.00019	.020	.00031
%RSD	.16663	.21326	14.060	.14977	3.9118

#1	47.444	.00601	.00124	13.408	.00827
#2	47.332	.00603	.00152	13.437	.00783

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	29.716	-.00218	-.00630	4.1199
Stddev	.00134	.003	.00096	.00182	.0008
%RSD	2133.6	.00886	43.818	28.925	.01848

#1	-.00101	29.718	-.00286	-.00758	4.1194
#2	.00088	29.715	-.00151	-.00501	4.1205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.62615	.00013	.00314	-.00129
Stddev	.00002	.00100	.00011	.00127	.00007
%RSD	15.536	.15922	83.518	40.365	5.7838

#1	-.00011	.62685	.00020	.00224	-.00134
#2	-.00013	.62544	.00005	.00403	-.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143485-c-6-b Acquired: 11/3/2018 2:00:09 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00429**
 Stddev .00000
 %RSD .02144

#1 **.00429**
 #2 **.00429**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3113.2	3052.8	24813.	2931.0
Stddev	1.9	.2	74.	17.8
%RSD	.06050	.00612	.29911	.60805

#1	3111.9	3052.9	24760.	2918.4
#2	3114.6	3052.6	24865.	2943.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.70%	95.455%	98.721%	97.170%
Range				

Sample Name: 480-143545-b-1-a Acquired: 11/3/2018 2:03:49 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00047	-.03247	.00173	.96809	.56389
Stddev	.00018	.04763	.00015	.00033	.00119
%RSD	38.367	146.67	8.6636	.03431	.21108

#1	-.00034	.00121	.00162	.96785	.56473
#2	-.00060	-.06615	.00184	.96832	.56304

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00002	17.973	-.00018	-.0010	-.00008
Stddev	.00007	.035	.00008	.0171	.00003
%RSD	293.02	.19491	45.016	1661.	31.477

#1	-.00003	17.998	-.00023	.0110	-.00007
#2	.00007	17.949	-.00012	-.0131	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	-.00143	.20789	1.1229	.00556
Stddev	.00040	.00022	.00122	.0131	.00037
%RSD	383.18	15.205	.58555	1.1706	6.7217

#1	-.00039	-.00158	.20703	1.1322	.00529
#2	.00018	-.00128	.20875	1.1136	.00582

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143545-b-1-a Acquired: 11/3/2018 2:03:49 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	6.7087	.00517	.07376	57.618	.00015
Stddev	.0110	.00009	.00030	.021	.00002
%RSD	.16371	1.7190	.40416	.03706	16.317

#1	6.7010	.00523	.07397	57.603	.00017
#2	6.7165	.00511	.07355	57.633	.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00146	.08957	-.00282	-.00538	6.5512
Stddev	.00030	.00143	.00058	.00092	.0149
%RSD	20.750	1.6002	20.435	17.018	.22791

#1	.00167	.09059	-.00322	-.00473	6.5407
#2	.00124	.08856	-.00241	-.00602	6.5618

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	4.7160	.00027	.00267	-.00098
Stddev	.00016	.0109	.00030	.00107	.00012
%RSD	118.84	.23186	109.57	40.122	12.000

#1	-.00002	4.7237	.00048	.00191	-.00090
#2	-.00024	4.7082	.00006	.00342	-.00107

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143545-b-1-a Acquired: 11/3/2018 2:03:49 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00116**
 Stddev .00077
 %RSD 66.606

#1 **.00171**
 #2 **.00062**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3178.5	3093.7	24899.	2961.1
Stddev	1.3	1.6	115.	20.2
%RSD	.04219	.05203	.46277	.68123

#1	3177.5	3092.5	24980.	2946.8
#2	3179.4	3094.8	24817.	2975.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.81%	96.734%	99.065%	98.168%
Range				

Sample Name: mb 480-441219/1-a Acquired: 11/3/2018 2:07:28 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00103	.05255	.00193	.00088	.00008
Stddev	.00013	.02848	.00087	.00016	.00004
%RSD	13.023	54.201	44.859	18.606	47.641

#1	-.00113	.07269	.00254	.00077	.00006
#2	-.00094	.03241	.00132	.00100	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.01877	-.00015	.0510	.00000
Stddev	.00026	.00048	.00017	.0412	.00001
%RSD	296.90	2.5661	113.56	80.74	355.50

#1	.00028	.01911	-.00026	.0802	-.00000
#2	-.00010	.01843	-.00003	.0219	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-.00225	.00244	-.00746	-.00162
Stddev	.00081	.00035	.00145	.01824	.00053
%RSD	264.46	15.581	59.525	244.44	32.993

#1	-.00027	-.00200	.00346	-.02036	-.00199
#2	.00088	-.00250	.00141	.00543	-.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441219/1-a Acquired: 11/3/2018 2:07:28 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00793	.00065	-.00035	-.03037	.00018
Stddev	.00217	.00007	.00019	.00726	.00011
%RSD	27.341	10.878	53.641	23.921	63.857

#1	.00946	.00069	-.00022	-.02523	.00010
#2	.00639	.00060	-.00048	-.03550	.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00043	.00169	-.00257	-.00347	-.04825
Stddev	.00140	.00098	.00001	.00182	.00085
%RSD	322.17	57.754	.56624	52.337	1.7609

#1	-.00142	.00238	-.00258	-.00476	-.04764
#2	.00056	.00100	-.00256	-.00219	-.04885

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.00000	.00017	.00132	-.00070
Stddev	.00012	.00005	.00015	.00102	.00061
%RSD	47.458	5791.4	89.588	76.953	86.215

#1	.00035	.00004	.00027	.00060	-.00113
#2	.00017	-.00004	.00006	.00204	-.00028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: mb 480-441219/1-a Acquired: 11/3/2018 2:07:28 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00225**
 Stddev .00027
 %RSD 12.158

#1 **.00206**
 #2 **.00245**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3168.0	3142.6	24726.	2982.9
Stddev	.5	.5	116.	3.1
%RSD	.01675	.01488	.46889	.10479

#1	3168.3	3142.3	24808.	2980.7
#2	3167.6	3142.9	24644.	2985.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.47%	98.264%	98.377%	98.891%
Range				

Sample Name: lcs 480-441219/2-a Acquired: 11/3/2018 2:11:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05140	10.440	.22276	.20130	.20286
Stddev	.00053	.047	.00002	.00136	.00031
%RSD	1.0364	.45250	.00677	.67679	.15228

#1	.05177	10.407	.22277	.20033	.20264
#2	.05102	10.474	.22275	.20226	.20308

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21669	11.055	.22251	.0012	.20650
Stddev	.00042	.019	.00048	.0448	.00026
%RSD	.19408	.16995	.21357	3585.	.12382

#1	.21698	11.042	.22217	.0329	.20632
#2	.21639	11.069	.22284	-.0304	.20668

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21658	.21217	11.122	10.049	.19371
Stddev	.00127	.00003	.000	.048	.00021
%RSD	.58806	.01226	.00332	.48018	.11095

#1	.21568	.21219	11.122	10.083	.19386
#2	.21748	.21215	11.123	10.015	.19356

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441219/2-a Acquired: 11/3/2018 2:11:11 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	10.803	.22121	.20604	9.7146	.21498
Stddev	.002	.00026	.00053	.0268	.00041
%RSD	.02208	.11750	.25695	.27565	.18839

#1	10.802	.22102	.20567	9.6956	.21470
#2	10.805	.22139	.20641	9.7335	.21527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20736	10.596	.21239	.20949	10.378
Stddev	.00099	.020	.00038	.00192	.022
%RSD	.47921	.18572	.18011	.91739	.21191

#1	.20666	10.582	.21212	.21085	10.393
#2	.20807	10.610	.21266	.20813	10.362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20975	.21143	.21874	.20114	.21325
Stddev	.00005	.00069	.00105	.00204	.00128
%RSD	.02430	.32589	.48204	1.0130	.60232

#1	.20978	.21095	.21799	.20258	.21234
#2	.20971	.21192	.21948	.19970	.21416

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: lcs 480-441219/2-a Acquired: 11/3/2018 2:11:11 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg F **.23003**
 Stddev .00020
 %RSD .08864

#1 .23017
 #2 .22988

Check ? Chk Fail
 High Limit .23000
 Low Limit .17000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3200.1	3117.6	24640.	3016.7
Stddev	4.3	9.2	42.	3.8
%RSD	.13487	.29476	.17014	.12588

#1	3203.2	3124.1	24610.	3014.0
#2	3197.1	3111.1	24669.	3019.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.51%	97.483%	98.033%	100.01%
Range				

Sample Name: 480-143913-c-2-a Acquired: 11/3/2018 2:14:42 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00033	.15315	.00275	.10342	.06941
Stddev	.00035	.02121	.00035	.00067	.00030
%RSD	107.07	13.849	12.754	.65196	.43339

#1	-.00057	.16815	.00250	.10389	.06920
#2	-.00008	.13815	.00300	.10294	.06962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	81.097	.00044	-.0106	.00095
Stddev	.00010	.054	.00001	.0479	.00008
%RSD	396.54	.06628	1.6849	453.8	8.5711

#1	-.00005	81.059	.00044	-.0445	.00090
#2	.00010	81.135	.00045	.0233	.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03738	.00222	.43092	3.4695	.00973
Stddev	.00024	.00019	.00297	.0249	.00073
%RSD	.64449	8.4769	.69010	.71668	7.5517

#1	.03755	.00236	.42881	3.4871	.00921
#2	.03721	.00209	.43302	3.4519	.01025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-2-a Acquired: 11/3/2018 2:14:42 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	16.240	.11767	.00377	14.088	.00834
Stddev	.017	.00001	.00004	.026	.00018
%RSD	.10753	.00725	1.0159	.18669	2.1009

#1	16.228	.11767	.00379	14.106	.00846
#2	16.253	.11768	.00374	14.069	.00821

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.04553	14.363	-.00007	-.00116	12.802
Stddev	.00041	.017	.00121	.00049	.049
%RSD	.91095	.12169	1845.0	42.311	.38263

#1	.04524	14.351	.00079	-.00151	12.837
#2	.04583	14.376	-.00092	-.00082	12.767

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00048	.20255	.00319	.00193	.00166
Stddev	.00003	.00005	.00069	.00006	.00005
%RSD	6.7660	.02607	21.500	3.1867	2.9391

#1	.00050	.20252	.00368	.00189	.00170
#2	.00046	.20259	.00271	.00198	.00163

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-2-a Acquired: 11/3/2018 2:14:42 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01573**
 Stddev .00042
 %RSD 2.6859

#1 **.01543**
 #2 **.01603**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3168.8	3057.0	24586.	2978.3
Stddev	7.1	2.6	105.	5.6
%RSD	.22286	.08651	.42554	.18940

#1	3173.8	3058.9	24660.	2982.2
#2	3163.8	3055.1	24512.	2974.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.50%	95.588%	97.818%	98.737%
Range				

Sample Name: 480-143913-c-3-a Acquired: 11/3/2018 2:18:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00111	.31531	.00264	.07956	.07057
Stddev	.00080	.02594	.00069	.00013	.00028
%RSD	71.570	8.2255	26.304	.16431	.39086

#1	-.00055	.33365	.00215	.07965	.07077
#2	-.00168	.29697	.00313	.07947	.07038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00019	136.49	.00033	-.0070	.00170
Stddev	.00008	.29	.00011	.0042	.00012
%RSD	41.532	.21553	35.235	59.31	7.1459

#1	.00025	136.69	.00024	-.0041	.00179
#2	.00014	136.28	.00041	-.0100	.00161

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10112	.00388	1.0516	3.9450	.00435
Stddev	.00004	.00005	.0043	.0047	.00145
%RSD	.04051	1.2745	.41001	.11860	33.392

#1	.10115	.00391	1.0485	3.9483	.00332
#2	.10110	.00384	1.0546	3.9417	.00538

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-3-a Acquired: 11/3/2018 2:18:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	45.735	.09695	.00157	69.360	.04162
Stddev	.240	.00037	.00002	.167	.00037
%RSD	.52586	.38269	1.0110	.24137	.88129

#1	45.905	.09722	.00156	69.478	.04188
#2	45.565	.09669	.00158	69.242	.04136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00328	22.860	-.00386	-.00188	7.7141
Stddev	.00036	.001	.00123	.00248	.0184
%RSD	10.928	.00227	31.804	131.64	.23831

#1	.00303	22.860	-.00299	-.00013	7.7271
#2	.00353	22.861	-.00473	-.00363	7.7011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.25537	.00653	.00288	.00008
Stddev	.00017	.00080	.00042	.00107	.00058
%RSD	28.201	.31299	6.4225	36.992	722.21

#1	.00072	.25594	.00683	.00363	.00049
#2	.00048	.25481	.00624	.00213	-.00033

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-3-a Acquired: 11/3/2018 2:18:20 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01885**
 Stddev .00109
 %RSD 5.7791

#1 **.01962**
 #2 **.01808**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3098.1	3023.0	24757.	2935.3
Stddev	1.8	4.4	59.	11.3
%RSD	.05832	.14714	.23685	.38586

#1	3099.3	3026.1	24715.	2927.3
#2	3096.8	3019.8	24798.	2943.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.21%	94.524%	98.500%	97.314%
Range				

Sample Name: 480-143913-c-4-a Acquired: 11/3/2018 2:21:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.06291	.00588	.34185	.07526
Stddev	.00001	.01922	.00044	.00078	.00037
%RSD	1.4327	30.543	7.5522	.22896	.49299

#1	-.00054	.04933	.00620	.34130	.07552
#2	-.00053	.07650	.00557	.34241	.07500

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	141.92	.00050	-.0524	.00169
Stddev	.00011	.02	.00010	.0143	.00009
%RSD	271.47	.01315	19.774	27.21	5.3533

#1	.00012	141.93	.00043	-.0423	.00175
#2	-.00004	141.90	.00057	-.0624	.00163

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.02031	.00021	3.6096	10.186	.01651
Stddev	.00035	.00027	.0020	.048	.00057
%RSD	1.7033	127.62	.05453	.47031	3.4791

#1	.02056	.00040	3.6082	10.220	.01610
#2	.02007	.00002	3.6109	10.152	.01691

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-4-a Acquired: 11/3/2018 2:21:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	64.494	.37626	.00001	111.78	.09897
Stddev	.421	.00231	.00001	.23	.00029
%RSD	.65298	.61310	99.555	.20262	.29036

#1	64.792	.37790	.00002	111.94	.09917
#2	64.196	.37463	.00000	111.62	.09876

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00246	3.2844	-.00169	-.00319	17.420
Stddev	.00033	.0031	.00026	.00041	.127
%RSD	13.484	.09406	15.636	12.977	.73076

#1	.00269	3.2822	-.00150	-.00290	17.510
#2	.00222	3.2866	-.00187	-.00349	17.330

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.33185	.00208	.00361	.00137
Stddev	.00022	.00050	.00022	.00126	.00025
%RSD	93.294	.15138	10.361	34.893	18.366

#1	.00008	.33150	.00193	.00272	.00119
#2	.00040	.33221	.00223	.00451	.00155

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-4-a Acquired: 11/3/2018 2:21:59 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.02156**
 Stddev .00069
 %RSD 3.2132

#1 **.02205**
 #2 **.02107**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3057.9	3005.9	24680.	2909.7
Stddev	3.6	2.5	170.	1.2
%RSD	.11657	.08164	.68689	.04213

#1	3055.4	3007.6	24560.	2908.8
#2	3060.4	3004.1	24800.	2910.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	98.911%	93.989%	98.194%	96.465%
Range				

Sample Name: 480-143913-c-5-a Acquired: 11/3/2018 2:25:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	.09870	.00209	.18641	.07670
Stddev	.00010	.02285	.00008	.00051	.00036
%RSD	13.929	23.154	3.9740	.27290	.47412

#1	-.00064	.11486	.00203	.18605	.07645
#2	-.00078	.08254	.00215	.18677	.07696

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	136.46	.00020	.0073	.00155
Stddev	.00002	.38	.00008	.0194	.00008
%RSD	55.989	.27779	39.378	267.5	5.1105

#1	.00002	136.73	.00014	.0210	.00149
#2	.00004	136.19	.00025	-.0065	.00160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01937	.00066	.50651	3.2106	.00387
Stddev	.00003	.00020	.00125	.0464	.00088
%RSD	.16769	30.447	.24686	1.4468	22.789

#1	.01939	.00052	.50739	3.2435	.00325
#2	.01935	.00080	.50563	3.1778	.00449

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-5-a Acquired: 11/3/2018 2:25:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	37.502	.42023	.00702	87.745	.02898
Stddev	.180	.00260	.00031	.212	.00007
%RSD	.47979	.61871	4.4307	.24155	.22675

#1	37.375	.41839	.00680	87.595	.02894
#2	37.630	.42207	.00724	87.895	.02903

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00118	24.913	-.00320	-.00244	7.8201
Stddev	.00105	.016	.00047	.00261	.0588
%RSD	88.806	.06265	14.595	106.70	.75206

#1	.00044	24.924	-.00354	-.00428	7.8617
#2	.00192	24.902	-.00287	-.00060	7.7785

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.16031	.00289	.00527	-.00100
Stddev	.00031	.00020	.00036	.00109	.00047
%RSD	140.78	.12582	12.298	20.606	46.974

#1	-.00044	.16017	.00264	.00603	-.00067
#2	-.00000	.16045	.00315	.00450	-.00133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-5-a Acquired: 11/3/2018 2:25:37 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00594**
 Stddev .00010
 %RSD 1.6271

#1 **.00601**
 #2 **.00587**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3095.9	3023.9	24754.	2933.5
Stddev	3.3	.1	123.	.6
%RSD	.10700	.00490	.49663	.02114

#1	3098.2	3024.0	24841.	2933.9
#2	3093.5	3023.8	24667.	2933.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.14%	94.553%	98.489%	97.253%
Range				

Sample Name: 480-143913-c-6-a Acquired: 11/3/2018 2:29:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00107	.03410	.00130	.09097	.03293
Stddev	.00037	.01367	.00140	.00003	.00008
%RSD	35.003	40.076	108.24	.03732	.24311

#1	-.00133	.02444	.00030	.09100	.03299
#2	-.00080	.04377	.00229	.09095	.03287

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00022	116.22	.00029	-.0115	.00101
Stddev	.00005	.04	.00006	.0205	.00007
%RSD	23.525	.03275	20.534	178.4	6.7097

#1	.00018	116.20	.00025	-.0260	.00106
#2	.00025	116.25	.00033	.0030	.00097

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10081	.00129	.98202	3.6522	.00594
Stddev	.00054	.00066	.00273	.0244	.00069
%RSD	.53797	51.503	.27823	.66879	11.529

#1	.10119	.00082	.98009	3.6349	.00643
#2	.10043	.00176	.98395	3.6694	.00546

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-6-a Acquired: 11/3/2018 2:29:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	32.462	.04664	.00060	34.122	.16230
Stddev	.143	.00018	.00002	.086	.00005
%RSD	.44087	.38795	3.1012	.25114	.02843

#1	32.564	.04677	.00062	34.062	.16227
#2	32.361	.04651	.00059	34.183	.16233

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00058	12.616	-.00221	-.00112	6.8733
Stddev	.00075	.000	.00105	.00329	.0038
%RSD	130.05	.00382	47.775	293.92	.05583

#1	.00111	12.616	-.00146	.00121	6.8760
#2	.00005	12.616	-.00295	-.00345	6.8705

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00027	.17019	.00017	.00405	-.00092
Stddev	.00032	.00014	.00023	.00054	.00085
%RSD	118.44	.08473	137.88	13.322	92.260

#1	.00050	.17029	.00033	.00443	-.00032
#2	.00004	.17008	.00000	.00367	-.00151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-6-a Acquired: 11/3/2018 2:29:15 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.05512**
 Stddev .00076
 %RSD 1.3762

#1 **.05565**
 #2 **.05458**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3114.1	3029.1	24656.	2936.8
Stddev	1.9	4.4	107.	1.4
%RSD	.06145	.14563	.43337	.04655

#1	3115.4	3032.2	24580.	2937.8
#2	3112.7	3026.0	24731.	2935.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.73%	94.716%	98.097%	97.365%
Range				

Sample Name: ccv-4973140 Acquired: 11/3/2018 2:32:55 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .55986	25.576	.52720	.50835	.51257
Stddev	.00339	.177	.00199	.00044	.00198
%RSD	.60522	.69175	.37766	.08561	.38606

#1	.56226	25.451	.52861	.50866	.51397
#2	.55747	25.701	.52579	.50805	.51117

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51060	26.573	.52895	-.0230	.50459
Stddev	.00244	.104	.00069	.0180	.00045
%RSD	.47767	.39231	.13086	78.34	.08969

#1	.50888	26.499	.52944	-.0357	.50427
#2	.51233	26.647	.52846	-.0102	.50491

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51335	.52570	26.433	25.147	.50528
Stddev	.00096	.00261	.025	.039	.00052
%RSD	.18684	.49633	.09578	.15627	.10194

#1	.51267	.52755	26.451	25.120	.50492
#2	.51403	.52386	26.415	25.175	.50565

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 2:32:55 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.043	.53280	.50535	25.309	.50164
Stddev	.019	.00146	.00111	.060	.00011
%RSD	.07144	.27493	.21991	.23853	.02188

#1	26.056	.53384	.50613	25.267	.50172
#2	26.030	.53177	.50456	25.352	.50156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50891	26.952	.51947	.52190	26.088
Stddev	.00028	.074	.00005	.00052	.173
%RSD	.05526	.27349	.01041	.10037	.66183

#1	.50871	27.004	.51951	.52153	25.966
#2	.50911	26.900	.51944	.52227	26.210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.52922	.52947	.52621	.48968	.51039
Stddev	.00016	.00270	.00293	.00046	.00147
%RSD	.03113	.50946	.55637	.09308	.28879

#1	.52933	.52756	.52828	.48936	.51143
#2	.52910	.53137	.52414	.49001	.50935

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 2:32:55 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.52017**
 Stddev .00105
 %RSD .20247

#1 **.52091**
 #2 **.51942**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.7	3089.3	24689.	2920.5
Stddev	4.2	8.2	85.	14.7
%RSD	.13257	.26412	.34236	.50338
#1	3150.8	3083.5	24629.	2930.9
#2	3156.7	3095.1	24749.	2910.1

Sample Name: ccb-4975309 Acquired: 11/3/2018 2:36:22 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00081	-.03023	.00152	-.00036	.00005
Stddev	.00033	.02433	.00095	.00028	.00000
%RSD	40.242	80.480	62.415	76.762	3.5086

#1	-.00058	-.04743	.00219	-.00017	.00005
#2	-.00104	-.01303	.00085	-.00056	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00623	.00005	.0365	.00013
Stddev	.00002	.00520	.00012	.0157	.00006
%RSD	23.248	83.410	227.74	43.00	50.706

#1	.00007	-.00990	-.00003	.0476	.00017
#2	.00010	-.00256	.00014	.0254	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00043	-.00082	.00167	-.00883	-.00047
Stddev	.00018	.00059	.00365	.04758	.00182
%RSD	42.335	71.721	219.32	538.81	389.74

#1	.00056	-.00124	-.00092	.02482	.00082
#2	.00030	-.00040	.00425	-.04248	-.00175

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 2:36:22 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00715	.00004	.00057	-.02731	.00012
Stddev	.00830	.00002	.00030	.00849	.00000
%RSD	116.10	56.410	51.936	31.096	.31292

#1	.00128	.00002	.00036	-.03332	.00012
#2	.01302	.00006	.00078	-.02131	.00012

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.00211	-.00068	-.00166	-.04518
Stddev	.00096	.00257	.00174	.00185	.02613
%RSD	272.03	121.98	257.30	111.61	57.822

#1	.00103	-.00393	.00056	-.00297	-.06366
#2	-.00032	-.00029	-.00191	-.00035	-.02671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00074	.00001	.00074	-.00111	-.00061
Stddev	.00018	.00028	.00029	.00064	.00009
%RSD	24.212	2040.2	39.678	57.292	14.742

#1	.00062	.00022	.00095	-.00156	-.00067
#2	.00087	-.00019	.00053	-.00066	-.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 2:36:22 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00020**
 Stddev .00001
 %RSD 6.5232

#1 **-.00021**
 #2 **-.00019**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3145.9	3095.6	24476.	2891.6
Stddev	6.3	3.7	77.	1.7
%RSD	.20051	.12056	.31550	.05936
#1	3141.4	3093.0	24422.	2890.4
#2	3150.3	3098.3	24531.	2892.8

Sample Name: ccvl-4970377 Acquired: 11/3/2018 2:40:05 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00543	.16143	.01726	.01885	.00207
Stddev	.00004	.02325	.00092	.00054	.00001
%RSD	.75069	14.401	5.3580	2.8669	.64743

#1	.00540	.17787	.01792	.01847	.00206
#2	.00545	.14499	.01661	.01924	.00208

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00224	.53956	.00211	.0852	.00429
Stddev	.00009	.00900	.00000	.0351	.00000
%RSD	4.1150	1.6688	.10341	41.23	.00581

#1	.00217	.54593	.00211	.1100	.00429
#2	.00230	.53319	.00211	.0603	.00429

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00381	.00752	.05202	.45840	.02722
Stddev	.00043	.00017	.00081	.00949	.00264
%RSD	11.314	2.2897	1.5577	2.0702	9.7012

#1	.00411	.00739	.05260	.46511	.02909
#2	.00350	.00764	.05145	.45169	.02535

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 2:40:05 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20642	.00304	.00963	.93831	.01064
Stddev	.00479	.00008	.00009	.00624	.00044
%RSD	2.3210	2.6085	.88279	.66521	4.1501

#1	.20303	.00310	.00957	.94272	.01033
#2	.20980	.00299	.00969	.93389	.01095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01092	.20390	.01805	.02175	.51355
Stddev	.00170	.00296	.00034	.00140	.04207
%RSD	15.556	1.4501	1.8682	6.4591	8.1914

#1	.00972	.20599	.01829	.02275	.54330
#2	.01212	.20181	.01781	.02076	.48380

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01015	.00521	.00564	.02229	.00373
Stddev	.00045	.00001	.00042	.00091	.00066
%RSD	4.4234	.12418	7.5124	4.0751	17.794

#1	.00984	.00521	.00534	.02293	.00420
#2	.01047	.00522	.00594	.02165	.00326

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 2:40:05 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01137**
 Stddev .00054
 %RSD 4.7494

#1 **.01099**
 #2 **.01175**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3175.6	3135.9	24878.	2919.2
Stddev	2.7	2.5	65.	25.7
%RSD	.08413	.07925	.26240	.88021
#1	3177.5	3137.7	24832.	2937.4
#2	3173.7	3134.2	24924.	2901.0

Sample Name: 480-143913-c-7-a Acquired: 11/3/2018 2:43:47 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	.00645	.00127	.34436	.11330
Stddev	.00019	.00634	.00082	.00039	.00007
%RSD	51.620	98.266	64.456	.11366	.06074

#1	-.00050	.01093	.00069	.34463	.11325
#2	-.00023	.00197	.00185	.34408	.11335

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	143.65	.00018	.0086	.00173
Stddev	.00024	.18	.00004	.0583	.00003
%RSD	818.73	.12602	24.757	680.8	1.6704

#1	-.00014	143.78	.00021	-.0327	.00171
#2	.00019	143.52	.00015	.0498	.00175

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.14522	-.00002	1.2778	4.2431	.00568
Stddev	.00019	.00055	.0092	.0103	.00024
%RSD	.13252	2878.1	.72268	.24233	4.2089

#1	.14536	-.00041	1.2843	4.2359	.00585
#2	.14509	.00037	1.2712	4.2504	.00551

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-7-a Acquired: 11/3/2018 2:43:47 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	33.120	1.5667	.00046	54.942	.02699
Stddev	.032	.0003	.00017	.267	.00009
%RSD	.09613	.01620	36.130	.48535	.31940

#1	33.098	1.5665	.00035	55.130	.02693
#2	33.143	1.5669	.00058	54.753	.02705

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00073	24.537	-.00279	-.00173	6.7186
Stddev	.00191	.007	.00161	.00089	.0129
%RSD	263.07	.02793	57.619	51.433	.19188

#1	-.00063	24.542	-.00392	-.00236	6.7277
#2	.00208	24.532	-.00165	-.00110	6.7095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.41570	.00010	.00383	-.00047
Stddev	.00082	.00158	.00083	.00029	.00030
%RSD	313.70	.38002	837.13	7.4516	63.625

#1	-.00032	.41681	.00068	.00403	-.00069
#2	.00084	.41458	-.00049	.00363	-.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-7-a Acquired: 11/3/2018 2:43:47 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00590**
 Stddev .00005
 %RSD .84520

#1 **.00586**
 #2 **.00593**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3109.5	3045.0	24896.	2923.4
Stddev	3.4	7.3	11.	12.7
%RSD	.10804	.23847	.04578	.43271

#1	3107.1	3039.9	24888.	2914.5
#2	3111.8	3050.1	24904.	2932.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.58%	95.212%	99.052%	96.919%
Range				

Sample Name: 480-143913-c-8-a Acquired: 11/3/2018 2:47:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	.37852	.00325	.06189	.05045
Stddev	.00117	.02263	.00013	.00003	.00012
%RSD	231.91	5.9794	4.0014	.05043	.23958

#1	.00032	.39452	.00334	.06191	.05054
#2	-.00133	.36252	.00315	.06187	.05037

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	113.33	.00036	.0119	.00219
Stddev	.00008	.64	.00003	.0011	.00003
%RSD	122.33	.56082	9.2015	9.263	1.4743

#1	.00001	112.88	.00038	.0112	.00221
#2	.00012	113.78	.00034	.0127	.00217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.44371	.02235	4.9692	2.2442	.00477
Stddev	.00033	.00023	.0238	.0304	.00088
%RSD	.07465	1.0336	.47894	1.3565	18.442

#1	.44394	.02218	4.9524	2.2658	.00539
#2	.44347	.02251	4.9861	2.2227	.00415

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-8-a Acquired: 11/3/2018 2:47:25 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	35.554	.04167	.00427	47.119	.06388
Stddev	.030	.00018	.00016	.055	.00013
%RSD	.08434	.43439	3.6823	.11744	.19880

#1	35.533	.04154	.00416	47.080	.06397
#2	35.576	.04180	.00438	47.159	.06379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00520	14.005	-.00298	-.00464	7.8481
Stddev	.00083	.005	.00007	.00102	.0517
%RSD	15.966	.03849	2.2615	21.958	.65857

#1	.00579	14.001	-.00303	-.00392	7.8846
#2	.00461	14.009	-.00294	-.00536	7.8115

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00087	.13665	.00826	.00367	.00235
Stddev	.00021	.00001	.00040	.00136	.00007
%RSD	23.918	.00889	4.8591	36.981	2.8084

#1	.00072	.13664	.00798	.00463	.00239
#2	.00101	.13666	.00855	.00271	.00230

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-8-a Acquired: 11/3/2018 2:47:25 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01347**
 Stddev .00010
 %RSD .72570

#1 **.01340**
 #2 **.01354**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3122.5	3045.7	24759.	2959.5
Stddev	1.2	3.2	3.	22.7
%RSD	.03997	.10583	.01121	.76647

#1	3123.4	3047.9	24757.	2975.6
#2	3121.6	3043.4	24761.	2943.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.00%	95.233%	98.510%	98.117%
Range				

Sample Name: 480-143913-c-9-a Acquired: 11/3/2018 2:51:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00076	.11972	.00057	.03369	.04731
Stddev	.00143	.00603	.00004	.00077	.00015
%RSD	188.55	5.0354	7.8186	2.2736	.30798

#1	-.00177	.11545	.00054	.03315	.04721
#2	.00025	.12398	.00060	.03423	.04741

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	108.90	.00052	.0095	.00232
Stddev	.00007	.62	.00034	.0314	.00018
%RSD	53.694	.56863	66.393	332.2	7.8309

#1	.00008	108.46	.00027	-.0128	.00245
#2	.00019	109.34	.00076	.0317	.00219

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51852	.01923	4.4360	2.0853	.00283
Stddev	.00089	.00128	.0093	.0167	.00234
%RSD	.17207	6.6792	.21044	.80081	82.756

#1	.51915	.01832	4.4294	2.0735	.00117
#2	.51789	.02014	4.4426	2.0971	.00448

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-9-a Acquired: 11/3/2018 2:51:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	35.795	.04472	.00273	28.116	.03983
Stddev	.119	.00024	.00005	.034	.00005
%RSD	.33119	.53830	1.7044	.12069	.12994

#1	35.711	.04455	.00277	28.092	.03979
#2	35.879	.04489	.00270	28.140	.03987

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00355	12.268	-.00212	-.00349	7.2276
Stddev	.00072	.018	.00170	.00185	.0805
%RSD	20.162	.15044	80.074	53.140	1.1145

#1	.00406	12.281	-.00092	-.00218	7.2845
#2	.00304	12.255	-.00332	-.00479	7.1706

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.11243	.00435	.00346	.00209
Stddev	.00031	.00078	.00065	.00002	.00068
%RSD	63.013	.69664	15.071	.64033	32.493

#1	.00071	.11188	.00388	.00347	.00257
#2	.00027	.11299	.00481	.00344	.00161

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-9-a Acquired: 11/3/2018 2:51:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01211**
 Stddev .00101
 %RSD 8.3038

#1 **.01140**
 #2 **.01282**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3117.6	3036.1	24563.	2961.5
Stddev	1.7	.6	26.	12.1
%RSD	.05383	.01933	.10645	.41009

#1	3118.8	3036.5	24581.	2970.0
#2	3116.5	3035.7	24544.	2952.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.84%	94.933%	97.728%	98.180%
Range				

Sample Name: 480-143913-c-10-a Acquired: 11/3/2018 2:54:42 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	.07463	.00186	.03834	.05143
Stddev	.00061	.01211	.00172	.00050	.00010
%RSD	298.02	16.231	92.305	1.2989	.18642

#1	.00064	.06606	.00065	.03799	.05137
#2	-.00023	.08319	.00308	.03869	.05150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	113.41	.00051	.0166	.00309
Stddev	.00014	.59	.00011	.0140	.00014
%RSD	135.13	.51829	22.251	84.14	4.6778

#1	.00021	112.99	.00059	.0067	.00319
#2	.00000	113.83	.00043	.0265	.00299

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.35684	.00395	2.5004	2.2678	.00300
Stddev	.00086	.00007	.0017	.0579	.00028
%RSD	.24148	1.8808	.06906	2.5517	9.4833

#1	.35744	.00400	2.5016	2.3087	.00280
#2	.35623	.00390	2.4992	2.2269	.00320

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-10-a Acquired: 11/3/2018 2:54:42 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	36.929	.03861	.00170	33.616	.07520
Stddev	.020	.00002	.00040	.131	.00036
%RSD	.05402	.04430	23.437	.39023	.48210

#1	36.915	.03862	.00198	33.523	.07495
#2	36.943	.03860	.00142	33.708	.07546

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00050	13.243	-.00286	.00041	7.5359
Stddev	.00094	.008	.00231	.00033	.0580
%RSD	187.62	.05856	80.739	81.212	.76896

#1	.00116	13.237	-.00449	.00017	7.4949
#2	-.00016	13.248	-.00123	.00064	7.5769

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00037	.18228	.00273	.00316	.00092
Stddev	.00002	.00006	.00074	.00189	.00050
%RSD	5.9256	.03202	27.277	59.735	53.824

#1	.00038	.18224	.00220	.00449	.00127
#2	.00035	.18232	.00326	.00182	.00057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-10-a Acquired: 11/3/2018 2:54:42 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00529**
 Stddev .00093
 %RSD 17.552

#1 **.00464**
 #2 **.00595**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3114.3	3028.1	24540.	2909.8
Stddev	4.3	2.5	12.	23.3
%RSD	.13877	.08400	.05048	.80204

#1	3111.2	3026.3	24532.	2926.3
#2	3117.3	3029.9	24549.	2893.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.73%	94.685%	97.639%	96.469%
Range				

Sample Name: 480-143913-c-11-a Acquired: 11/3/2018 2:58:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00100	.51256	.00254	.03628	.04158
Stddev	.00102	.00681	.00076	.00046	.00010
%RSD	102.85	1.3288	30.023	1.2565	.23419

#1	-.00027	.50774	.00308	.03661	.04151
#2	-.00172	.51737	.00200	.03596	.04165

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	109.35	.00020	-.0253	.00235
Stddev	.00001	.74	.00011	.0193	.00022
%RSD	12.511	.67928	56.325	76.46	9.4956

#1	.00010	109.87	.00012	-.0116	.00219
#2	.00008	108.82	.00028	-.0389	.00250

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.13651	.00277	2.3404	2.4665	.00414
Stddev	.00068	.00019	.0247	.0092	.00148
%RSD	.49865	6.9254	1.0566	.37172	35.719

#1	.13699	.00291	2.3579	2.4730	.00519
#2	.13603	.00264	2.3229	2.4601	.00310

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-11-a Acquired: 11/3/2018 2:58:19 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	36.100	.03374	-.00011	29.188	.15600
Stddev	.069	.00020	.00020	.259	.00089
%RSD	.18995	.60017	187.91	.88856	.56947

#1	36.149	.03388	.00004	29.372	.15537
#2	36.052	.03359	-.00025	29.005	.15663

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00250	12.509	-.00414	-.00415	8.0264
Stddev	.00141	.026	.00120	.00188	.0077
%RSD	56.326	.20399	29.081	45.234	.09661

#1	.00151	12.527	-.00329	-.00282	8.0319
#2	.00350	12.491	-.00499	-.00547	8.0209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.10882	.01279	.00302	.00030
Stddev	.00104	.00073	.00101	.00006	.00075
%RSD	168.68	.66821	7.8630	2.0818	252.47

#1	.00136	.10933	.01350	.00297	-.00023
#2	-.00012	.10830	.01208	.00306	.00082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-11-a Acquired: 11/3/2018 2:58:19 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00687**
 Stddev .00082
 %RSD 11.981

#1 **.00745**
 #2 **.00629**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3112.0	3029.0	24532.	2930.4
Stddev	2.3	1.8	67.	14.1
%RSD	.07348	.06020	.27505	.48160

#1	3113.6	3030.3	24485.	2920.5
#2	3110.3	3027.7	24580.	2940.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.66%	94.711%	97.607%	97.152%
Range				

Sample Name: 480-143913-c-12-a Acquired: 11/3/2018 3:01:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00122	.00906	.00163	.11019	.04130
Stddev	.00004	.01396	.00080	.00006	.00007
%RSD	3.6523	154.04	48.772	.05336	.15757

#1	-.00125	-.00081	.00107	.11024	.04134
#2	-.00119	.01893	.00219	.11015	.04125

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00011	103.93	.00031	.0012	.00262
Stddev	.00004	.03	.00013	.0207	.00022
%RSD	33.814	.02916	42.470	1753.	8.2313

#1	.00014	103.96	.00041	.0158	.00277
#2	.00009	103.91	.00022	-.0135	.00247

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.78950	.01582	3.4589	3.4330	.00074
Stddev	.00225	.00142	.0188	.0316	.00045
%RSD	.28441	8.9801	.54488	.92190	61.103

#1	.79108	.01682	3.4722	3.4554	.00042
#2	.78791	.01481	3.4455	3.4106	.00106

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-12-a Acquired: 11/3/2018 3:01:58 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	27.990	.02732	.01197	57.183	.05388
Stddev	.173	.00004	.00010	.022	.00035
%RSD	.61900	.13559	.87271	.03847	.65386

#1	28.113	.02730	.01204	57.199	.05363
#2	27.868	.02735	.01190	57.167	.05413

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00380	14.746	-.00192	.00053	6.4380
Stddev	.00008	.056	.00081	.00384	.0324
%RSD	2.2242	.38309	41.997	727.63	.50298

#1	.00374	14.786	-.00249	-.00219	6.4609
#2	.00386	14.706	-.00135	.00324	6.4151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00215	.19227	.00149	.00402	.00350
Stddev	.00025	.00041	.00009	.00089	.00008
%RSD	11.442	.21331	6.0738	22.243	2.3265

#1	.00232	.19256	.00143	.00465	.00344
#2	.00197	.19198	.00156	.00339	.00356

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-12-a Acquired: 11/3/2018 3:01:58 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00490**
 Stddev .00017
 %RSD 3.4133

#1 **.00479**
 #2 **.00502**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3118.8	3036.5	24709.	2924.7
Stddev	1.9	4.0	116.	12.4
%RSD	.06194	.13060	.46834	.42382

#1	3120.1	3033.6	24627.	2915.9
#2	3117.4	3039.3	24791.	2933.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.88%	94.945%	98.310%	96.961%
Range				

Sample Name: 480-143913-c-13-a Acquired: 11/3/2018 3:05:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00016	-.02550	.00145	.01339	.00023
Stddev	.00063	.03129	.00059	.00025	.00003
%RSD	394.38	122.73	40.654	1.8816	11.747

#1	.00029	-.04763	.00103	.01321	.00021
#2	-.00061	-.00337	.00187	.01357	.00025

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.37275	-.00002	.0089	.00008
Stddev	.00010	.00085	.00001	.0016	.00010
%RSD	524.21	.22828	51.995	18.01	127.59

#1	.00005	.37336	-.00002	.0100	.00001
#2	-.00009	.37215	-.00001	.0077	.00016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00037	-.00138	.00454	.14065	.00015
Stddev	.00062	.00003	.00460	.01427	.00101
%RSD	167.35	2.2899	101.49	10.148	693.69

#1	.00007	-.00136	.00128	.13056	-.00057
#2	-.00080	-.00141	.00779	.15074	.00086

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-13-a Acquired: 11/3/2018 3:05:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.10165	.00017	-.00087	.91331	.00067
Stddev	.00069	.00002	.00005	.02005	.00031
%RSD	.67827	14.244	5.2263	2.1953	46.551

#1	.10116	.00019	-.00084	.92749	.00089
#2	.10214	.00015	-.00091	.89914	.00045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.03955	-.00104	-.00449	.02437
Stddev	.00009	.00017	.00011	.00086	.00005
%RSD	32.651	.42321	11.044	19.133	.19103

#1	-.00022	.03943	-.00096	-.00510	.02433
#2	-.00034	.03967	-.00112	-.00388	.02440

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.00127	-.00003	.00080	-.00104
Stddev	.00012	.00019	.00043	.00028	.00079
%RSD	30.846	15.011	1564.1	34.558	75.922

#1	.00047	.00113	-.00033	.00100	-.00160
#2	.00030	.00140	.00027	.00060	-.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-13-a Acquired: 11/3/2018 3:05:37 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.00486**
Stddev .00029
%RSD 6.0660

#1 **.00507**
#2 **.00465**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3171.0	3116.8	24792.	2985.0
Stddev	.8	1.9	38.	32.4
%RSD	.02528	.06018	.15217	1.0868

#1	3170.5	3118.1	24818.	2962.1
#2	3171.6	3115.5	24765.	3008.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.57%	97.457%	98.638%	98.961%
Range				

Sample Name: 480-143913-c-14-a Acquired: 11/3/2018 3:09:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00041	.04399	.00109	.03648	.05275
Stddev	.00004	.01277	.00083	.00028	.00010
%RSD	8.5090	29.020	76.090	.75572	.19173

#1	-.00044	.03496	.00050	.03628	.05268
#2	-.00039	.05302	.00168	.03667	.05282

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	111.35	.00033	.0312	.00050
Stddev	.00006	.17	.00009	.0084	.00002
%RSD	198.62	.14854	26.343	26.78	4.9578

#1	.00001	111.24	.00039	.0253	.00052
#2	-.00007	111.47	.00027	.0371	.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03934	-.00027	.37504	2.2037	.00229
Stddev	.00041	.00022	.00393	.0362	.00045
%RSD	1.0513	81.959	1.0481	1.6449	19.826

#1	.03964	-.00011	.37782	2.2294	.00197
#2	.03905	-.00043	.37226	2.1781	.00261

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-14-a Acquired: 11/3/2018 3:09:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	36.756	.01051	-.00004	30.096	.00558
Stddev	.029	.00011	.00029	.053	.00000
%RSD	.07880	1.0257	814.37	.17612	.07297

#1	36.736	.01059	-.00024	30.134	.00558
#2	36.777	.01043	.00017	30.059	.00558

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00097	14.527	-.00355	-.00371	7.3836
Stddev	.00040	.018	.00094	.00217	.0149
%RSD	40.683	.12654	26.545	58.369	.20153

#1	.00125	14.540	-.00289	-.00524	7.3731
#2	.00069	14.514	-.00422	-.00218	7.3941

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00013	.20340	.00253	.00249	-.00066
Stddev	.00033	.00050	.00066	.00117	.00031
%RSD	264.90	.24650	26.050	46.968	47.541

#1	.00036	.20305	.00207	.00167	-.00088
#2	-.00011	.20376	.00300	.00332	-.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-14-a Acquired: 11/3/2018 3:09:20 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg .00524
Stddev .00021
%RSD 4.0846

#1 .00509
#2 .00539

Check ? Chk Pass
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.2	3034.4	24765.	2923.5
Stddev	.0	3.4	29.	3.5
%RSD	.00037	.11058	.11911	.11936

#1	3105.2	3032.1	24745.	2921.0
#2	3105.2	3036.8	24786.	2926.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.44%	94.882%	98.534%	96.922%
Range				

Sample Name: 143913-c-14-aSD@5 Acquired: 11/3/2018 3:12:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	-.06249	.00117	.00606	.01054
Stddev	.00023	.01473	.00260	.00008	.00009
%RSD	34.070	23.577	222.80	1.3107	.86205

#1	-.00084	-.05207	-.00067	.00612	.01047
#2	-.00052	-.07291	.00300	.00600	.01060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	22.179	.00000	-.0343	.00032
Stddev	.00000	.080	.00005	.0038	.00005
%RSD	2.9717	.36006	2970.7	10.98	15.990

#1	.00009	22.236	-.00003	-.0317	.00028
#2	.00009	22.123	.00004	-.0370	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00737	-.00053	.07610	.44459	-.00023
Stddev	.00033	.00008	.00167	.07525	.00005
%RSD	4.4390	14.252	2.1916	16.926	21.558

#1	.00714	-.00048	.07728	.49780	-.00019
#2	.00760	-.00059	.07492	.39138	-.00026

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143913-c-14-aSD@5 Acquired: 11/3/2018 3:12:59 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	7.2576	.00197	-.00064	5.7450	.00152
Stddev	.0449	.00004	.00020	.0071	.00014
%RSD	.61884	1.9945	32.088	.12360	9.4890

#1	7.2258	.00194	-.00078	5.7400	.00162
#2	7.2893	.00200	-.00049	5.7500	.00142

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00051	2.8239	-.00419	-.00459	1.4110
Stddev	.00038	.0087	.00154	.00256	.0057
%RSD	74.468	.30668	36.781	55.813	.40205

#1	-.00024	2.8178	-.00528	-.00641	1.4070
#2	-.00078	2.8300	-.00310	-.00278	1.4151

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.04016	.00065	.00202	-.00114
Stddev	.00071	.00004	.00033	.00091	.00025
%RSD	1078.2	.11009	50.178	45.333	21.544

#1	-.00044	.04013	.00042	.00266	-.00097
#2	.00057	.04019	.00089	.00137	-.00131

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143913-c-14-aSD@5 Acquired: 11/3/2018 3:12:59 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00110**
 Stddev .00037
 %RSD 33.638

#1 **.00136**
 #2 **.00084**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3196.4	3115.1	24844.	2969.1
Stddev	5.3	4.2	85.	26.4
%RSD	.16573	.13384	.34295	.88772

#1	3200.2	3118.0	24904.	2950.5
#2	3192.7	3112.1	24784.	2987.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.39%	97.403%	98.847%	98.434%
Range				

Sample Name: ccv-4973140 Acquired: 11/3/2018 3:16:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .57595	25.568	.53369	.50499	.52433
Stddev	.00061	.047	.00032	.00054	.00019
%RSD	.10670	.18426	.06013	.10735	.03607

#1	.57551	25.535	.53347	.50460	.52420
#2	.57638	25.602	.53392	.50537	.52446

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50597	27.042	.53415	-.0236	.50867
Stddev	.00051	.025	.00077	.0646	.00056
%RSD	.10137	.09116	.14338	273.5	.10916

#1	.50561	27.025	.53361	-.0693	.50827
#2	.50634	27.060	.53469	.0221	.50906

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51479	.54452	26.710	25.138	.49401
Stddev	.00292	.00064	.023	.041	.00336
%RSD	.56739	.11694	.08761	.16299	.67992

#1	.51273	.54407	26.726	25.167	.49163
#2	.51686	.54497	26.693	25.109	.49638

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 3:16:40 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.656	.54589	.50300	24.701	.50540
Stddev	.096	.00126	.00086	.030	.00067
%RSD	.36173	.23024	.17174	.12042	.13162

#1	26.588	.54500	.50361	24.680	.50587
#2	26.724	.54678	.50239	24.722	.50493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51105	27.305	.52086	.52832	26.112
Stddev	.00257	.054	.00198	.00136	.122
%RSD	.50267	.19905	.38010	.25811	.46645

#1	.51287	27.267	.51946	.52928	26.025
#2	.50923	27.344	.52226	.52736	26.198

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53729	.53157	.53067	.48718	.50697
Stddev	.00136	.00053	.00170	.00024	.00228
%RSD	.25363	.10061	.31982	.04948	.44885

#1	.53825	.53195	.52947	.48735	.50536
#2	.53632	.53119	.53187	.48701	.50858

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 3:16:40 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.52537**
 Stddev .00365
 %RSD .69436

#1 **.52279**
 #2 **.52795**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3164.1	3085.8	24502.	2950.3
Stddev	.4	2.0	105.	7.5
%RSD	.01164	.06476	.42705	.25582
#1	3164.3	3087.2	24576.	2955.6
#2	3163.8	3084.4	24428.	2944.9

Sample Name: ccb-4975309 Acquired: 11/3/2018 3:20:06 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00099	-.05274	.00147	-.00051	.00003
Stddev	.00010	.01568	.00015	.00008	.00004
%RSD	9.6644	29.726	10.342	16.514	105.18

#1	-.00092	-.04165	.00158	-.00045	.00006
#2	-.00105	-.06382	.00136	-.00057	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00318	.00004	-.0279	.00009
Stddev	.00008	.00213	.00011	.0069	.00015
%RSD	116.29	67.117	299.36	24.71	159.41

#1	.00001	.00167	-.00004	-.0230	.00020
#2	.00012	.00468	.00011	-.0328	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00040	-.00204	.00293	-.04282	-.00200
Stddev	.00014	.00044	.00398	.00959	.00071
%RSD	35.352	21.747	135.84	22.397	35.609

#1	.00050	-.00235	.00574	-.04961	-.00150
#2	.00030	-.00172	.00012	-.03604	-.00251

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 3:20:06 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00131	.00018	.00043	-.04130	.00040
Stddev	.00008	.00003	.00017	.02214	.00058
%RSD	6.3724	18.311	40.302	53.593	145.15

#1	.00125	.00020	.00031	-.02565	.00080
#2	.00137	.00016	.00055	-.05696	-.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00095	-.00368	-.00250	-.00179	-.02060
Stddev	.00003	.00112	.00194	.00203	.02217
%RSD	3.2459	30.484	77.932	113.00	107.62

#1	-.00093	-.00288	-.00387	-.00323	-.03627
#2	-.00097	-.00447	-.00112	-.00036	-.00492

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00000	.00055	.00048	-.00089
Stddev	.00022	.00011	.00022	.00047	.00027
%RSD	67.706	21210.	39.845	97.127	30.468

#1	.00049	-.00008	.00071	.00081	-.00109
#2	.00017	.00008	.00040	.00015	-.00070

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 3:20:06 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00005**
 Stddev .00023
 %RSD 445.16

#1 .00011
 #2 **-.00021**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.7	3076.9	24297.	2895.3
Stddev	3.1	4.5	59.	22.0
%RSD	.09900	.14499	.24187	.75993
#1	3150.5	3073.8	24256.	2879.7
#2	3154.9	3080.1	24339.	2910.9

Sample Name: ccvl-4970377 Acquired: 11/3/2018 3:23:48 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00544	.18244	.01802	.01868	.00210
Stddev	.00035	.02241	.00020	.00010	.00003
%RSD	6.5024	12.283	1.1284	.54406	1.3221

#1	.00519	.16659	.01787	.01861	.00208
#2	.00570	.19828	.01816	.01875	.00212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00227	.54749	.00206	.0221	.00418
Stddev	.00000	.00650	.00001	.0111	.00026
%RSD	.01067	1.1867	.52355	50.41	6.2472

#1	.00227	.54289	.00206	.0300	.00399
#2	.00227	.55208	.00207	.0142	.00436

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00349	.00775	.05579	.47950	.02856
Stddev	.00001	.00006	.00350	.01827	.00013
%RSD	.19101	.83246	6.2808	3.8102	.44257

#1	.00348	.00780	.05826	.46658	.02865
#2	.00349	.00770	.05331	.49242	.02847

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 3:23:48 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20978	.00302	.00941	.91355	.01064
Stddev	.00134	.00020	.00016	.01306	.00002
%RSD	.63786	6.7414	1.6964	1.4298	.15561

#1	.21073	.00317	.00930	.92278	.01065
#2	.20884	.00288	.00952	.90431	.01063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00976	.20640	.01744	.01935	.47102
Stddev	.00052	.00329	.00112	.00343	.00216
%RSD	5.3097	1.5918	6.4441	17.727	.45933

#1	.01013	.20408	.01664	.02177	.46949
#2	.00940	.20873	.01823	.01692	.47255

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01031	.00522	.00586	.02042	.00399
Stddev	.00006	.00003	.00016	.00003	.00054
%RSD	.62440	.54187	2.6707	.15069	13.477

#1	.01035	.00524	.00575	.02040	.00437
#2	.01026	.00520	.00597	.02044	.00361

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 3:23:48 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg W **.01389**
Stddev .00023
%RSD 1.6315

#1 .01405
#2 .01373

Check ? Chk Warn
Value .01000
Range 30.000%

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3182.7	3116.3	24524.	2913.5
Stddev	1.4	5.5	64.	18.0
%RSD	.04531	.17510	.25919	.61833

#1	3183.7	3120.2	24569.	2926.3
#2	3181.7	3112.4	24479.	2900.8

Sample Name: 480-143913-c-14-aPDS Acquired: 11/3/2018 3:27:30 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05330	9.9081	.22020	.23256	.24490
Stddev	.00079	.0276	.00201	.00116	.00081
%RSD	1.4898	.27835	.91490	.49787	.32916

#1	.05386	9.8886	.22163	.23175	.24547
#2	.05274	9.9276	.21878	.23338	.24433

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21088	117.70	.21983	-.0497	.19910
Stddev	.00067	.80	.00044	.0694	.00005
%RSD	.31610	.68009	.19833	139.6	.02394

#1	.21135	118.27	.22014	-.0006	.19913
#2	.21041	117.14	.21952	-.0987	.19906

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24174	.21084	10.897	11.739	.19265
Stddev	.00145	.00045	.043	.055	.00175
%RSD	.59818	.21352	.39260	.46452	.90602

#1	.24276	.21116	10.927	11.778	.19388
#2	.24072	.21052	10.866	11.701	.19141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-14-aPDS Acquired: 11/3/2018 3:27:30 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	46.494	.21697	.20227	38.356	.20845
Stddev	.172	.00098	.00093	.067	.00065
%RSD	.36891	.45269	.45817	.17459	.31151

#1	46.615	.21767	.20293	38.404	.20799
#2	46.372	.21628	.20162	38.309	.20891

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20608	24.936	.20307	.20583	17.676
Stddev	.00022	.034	.00104	.00322	.057
%RSD	.10459	.13621	.51407	1.5637	.32322

#1	.20593	24.960	.20381	.20810	17.716
#2	.20624	24.912	.20234	.20355	17.635

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21199	.39152	.21313	.19849	.20446
Stddev	.00027	.00134	.00072	.00108	.00023
%RSD	.12753	.34241	.33744	.54361	.11174

#1	.21218	.39247	.21364	.19772	.20429
#2	.21180	.39057	.21263	.19925	.20462

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-14-aPDS Acquired: 11/3/2018 3:27:30 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21568**
 Stddev .00132
 %RSD .61231

#1 **.21661**
 #2 **.21475**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3093.8	3029.7	24599.	2945.9
Stddev	4.6	.6	68.	13.4
%RSD	.14978	.02008	.27765	.45578

#1	3097.1	3030.1	24551.	2936.4
#2	3090.5	3029.3	24647.	2955.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.07%	94.734%	97.872%	97.666%
Range				

Sample Name: 480-143913-c-14-b ms Acquired: 11/3/2018 3:31:01 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05278	10.593	.22511	.24515	.25991
Stddev	.00069	.005	.00056	.00001	.00009
%RSD	1.3015	.04553	.24760	.00434	.03386

#1	.05230	10.597	.22471	.24514	.25985
#2	.05327	10.590	.22550	.24516	.25997

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21676	124.29	.22405	-.0407	.20221
Stddev	.00070	.53	.00045	.0088	.00023
%RSD	.32308	.42650	.19901	21.68	.11238

#1	.21725	124.67	.22437	-.0345	.20237
#2	.21626	123.92	.22374	-.0470	.20205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24977	.21614	11.177	12.607	.20860
Stddev	.00046	.00077	.028	.012	.00127
%RSD	.18527	.35489	.25325	.09534	.61042

#1	.24944	.21560	11.197	12.599	.20950
#2	.25009	.21668	11.157	12.616	.20770

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-14-b ms Acquired: 11/3/2018 3:31:01 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	49.015	.22330	.20716	50.145	.21261
Stddev	.061	.00011	.00103	.223	.00048
%RSD	.12462	.05115	.49662	.44396	.22488

#1	49.058	.22322	.20789	50.302	.21227
#2	48.972	.22338	.20643	49.987	.21295

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20819	25.773	.21393	.21223	18.090
Stddev	.00016	.083	.00191	.00219	.144
%RSD	.07752	.32235	.89257	1.0309	.79494

#1	.20830	25.832	.21258	.21068	18.192
#2	.20807	25.714	.21528	.21378	17.988

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21013	.41279	.21729	.20387	.20935
Stddev	.00000	.00279	.00072	.00029	.00005
%RSD	.00060	.67556	.33309	.14356	.02173

#1	.21013	.41476	.21678	.20407	.20938
#2	.21012	.41082	.21781	.20366	.20931

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143913-c-14-b ms Acquired: 11/3/2018 3:31:01 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21872**
 Stddev .00060
 %RSD .27487

#1 **.21830**
 #2 **.21915**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3078.2	3021.7	24494.	2947.5
Stddev	2.2	4.7	19.	.3
%RSD	.07083	.15627	.07650	.00955

#1	3076.6	3018.4	24481.	2947.3
#2	3079.7	3025.0	24508.	2947.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.566%	94.483%	97.455%	97.718%
Range				

Sample Name: 143913-c-14-c msD Acquired: 11/3/2018 3:34:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05280	10.589	.22071	.24515	.25851
Stddev	.00017	.030	.00036	.00068	.00086
%RSD	.32446	.28280	.16250	.27731	.33217

#1	.05292	10.610	.22046	.24563	.25790
#2	.05268	10.568	.22096	.24467	.25911

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21485	123.68	.21942	.0236	.19905
Stddev	.00019	.22	.00012	.0353	.00055
%RSD	.08707	.17983	.05620	149.5	.27395

#1	.21471	123.84	.21933	.0486	.19866
#2	.21498	123.53	.21951	-.0013	.19944

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.24353	.20766	10.879	12.656	.20931
Stddev	.00113	.00079	.049	.019	.00048
%RSD	.46466	.38180	.45220	.15356	.23064

#1	.24273	.20710	10.914	12.642	.20965
#2	.24434	.20822	10.844	12.670	.20897

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143913-c-14-c msD Acquired: 11/3/2018 3:34:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	48.545	.21585	.20423	41.647	.20909
Stddev	.136	.00088	.00082	.001	.00028
%RSD	.28105	.40682	.39972	.00245	.13260

#1	48.449	.21523	.20481	41.648	.20889
#2	48.642	.21647	.20365	41.647	.20928

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.20603	25.731	.20981	.20789	18.072
Stddev	.00096	.018	.00007	.00005	.149
%RSD	.46817	.06857	.03558	.02454	.82557

#1	.20535	25.744	.20976	.20786	18.178
#2	.20671	25.719	.20986	.20793	17.967

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21103	.41683	.21067	.19841	.20521
Stddev	.00008	.00042	.00010	.00052	.00135
%RSD	.03836	.10163	.04718	.26096	.66014

#1	.21109	.41653	.21060	.19804	.20426
#2	.21098	.41713	.21074	.19878	.20617

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143913-c-14-c msD Acquired: 11/3/2018 3:34:32 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.21573**
 Stddev .00034
 %RSD .15728

#1 .21549
 #2 .21597

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3090.9	3043.2	24627.	2931.3
Stddev	.6	.1	42.	.2
%RSD	.01870	.00250	.17163	.00749

#1	3091.3	3043.3	24656.	2931.2
#2	3090.5	3043.1	24597.	2931.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	99.979%	95.156%	97.981%	97.181%
Range				

Sample Name: 480-143617-b-1-a@5 Acquired: 11/3/2018 3:38:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00015	.01130	.05609	6.5650	.12287
Stddev	.00019	.05667	.00167	.0042	.00014
%RSD	121.31	501.45	2.9803	.06457	.11780

#1	-.00029	.05138	.05727	6.5680	.12297
#2	-.00002	-.02877	.05491	6.5620	.12276

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00007	11.815	-.00007	.0286	.01416
Stddev	.00009	.028	.00001	.0942	.00020
%RSD	124.87	.23592	7.6281	329.9	1.4098

#1	.00001	11.835	-.00008	-.0381	.01430
#2	.00014	11.796	-.00007	.0952	.01401

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.08397	.00446	.96975	300.84	.13476
Stddev	.00009	.00054	.00667	.13	.00177
%RSD	.10949	12.144	.68826	.04197	1.3142

#1	.08391	.00408	.96503	300.93	.13351
#2	.08404	.00484	.97447	300.75	.13602

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143617-b-1-a@5 Acquired: 11/3/2018 3:38:03 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	23.105	.02941	.00630	601.60	.14715
Stddev	.050	.00017	.00016	.31	.00064
%RSD	.21669	.56253	2.5453	.05164	.43549

#1	23.070	.02929	.00618	601.38	.14670
#2	23.140	.02953	.00641	601.82	.14760

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00571	12.968	.00256	-.00286	5.3437
Stddev	.00020	.001	.00117	.00109	.0174
%RSD	3.4590	.00974	45.681	38.020	.32519

#1	.00557	12.969	.00339	-.00363	5.3560
#2	.00585	12.967	.00173	-.00209	5.3315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03207	.22409	.10493	.00398	.02491
Stddev	.00096	.00016	.00025	.00047	.00113
%RSD	2.9863	.07177	.24018	11.823	4.5493

#1	.03275	.22397	.10511	.00431	.02571
#2	.03139	.22420	.10475	.00365	.02411

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 480-143617-b-1-a@5 Acquired: 11/3/2018 3:38:03 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.03542**
 Stddev .00022
 %RSD .63424

#1 **.03526**
 #2 **.03558**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2967.4	3028.5	25001.	2942.2
Stddev	1.7	2.8	63.	23.1
%RSD	.05656	.09235	.25040	.78555

#1	2968.6	3026.5	25045.	2925.8
#2	2966.3	3030.4	24957.	2958.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	95.985%	94.695%	99.472%	97.541%
Range				

Sample Name: 143658-3 TOTT Acquired: 11/3/2018 3:41:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00075	.00004	.00268	.00963	.02334
Stddev	.00071	.00883	.00035	.00089	.00015
%RSD	94.719	23352.	12.948	9.1992	.64008

#1	-.00125	.00628	.00243	.01025	.02323
#2	-.00025	-.00621	.00293	.00900	.02344

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	6.5302	-.00046	.0304	.00064
Stddev	.00001	.0026	.00002	.0232	.00012
%RSD	4.8073	.04016	4.7564	76.33	19.280

#1	.00015	6.5283	-.00044	.0140	.00073
#2	.00014	6.5320	-.00047	.0469	.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00046	-.00078	.16482	.81215	.00015
Stddev	.00040	.00053	.00408	.00957	.00147
%RSD	87.011	67.797	2.4734	1.1786	986.50

#1	-.00018	-.00040	.16770	.80538	-.00089
#2	-.00075	-.00115	.16194	.81892	.00119

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143658-3 TOTT Acquired: 11/3/2018 3:41:46 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.2985	.04891	-.00095	5.2655	.00114
Stddev	.0063	.00023	.00027	.0120	.00004
%RSD	.48147	.47249	28.065	.22754	3.2481

#1	1.2941	.04875	-.00114	5.2740	.00117
#2	1.3029	.04907	-.00076	5.2571	.00111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00065	1.5194	-.00397	-.00596	1.7988
Stddev	.00007	.0006	.00068	.00172	.0236
%RSD	11.088	.03916	17.065	28.778	1.3139

#1	.00070	1.5190	-.00349	-.00475	1.8155
#2	.00060	1.5198	-.00445	-.00717	1.7821

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00060	.02221	.00143	.00825	-.00074
Stddev	.00046	.00002	.00005	.00042	.00034
%RSD	76.949	.11068	3.6337	5.0785	46.402

#1	.00027	.02219	.00146	.00796	-.00098
#2	.00093	.02223	.00139	.00855	-.00050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143658-3 TOTT Acquired: 11/3/2018 3:41:46 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00124**
 Stddev .00064
 %RSD 51.187

#1 **.00169**
 #2 **.00079**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3259.2	3181.6	24982.	2949.0
Stddev	9.1	15.3	15.	6.2
%RSD	.27892	.48085	.05987	.20942

#1	3265.6	3192.4	24992.	2953.4
#2	3252.8	3170.8	24971.	2944.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	105.42%	99.484%	99.394%	97.768%
Range				

Sample Name: 143813-5 TOT Acquired: 11/3/2018 3:45:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	-.00051	.00321	.00624	.00539
Stddev	.00025	.01541	.00113	.00017	.00001
%RSD	34.542	3048.1	35.289	2.7746	.24521

#1	-.00054	.01039	.00401	.00636	.00538
#2	-.00089	-.01140	.00241	.00612	.00540

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	7.0192	-.00033	.0317	.00035
Stddev	.00004	.0042	.00002	.0205	.00015
%RSD	25.248	.06041	7.3740	64.53	44.440

#1	.00014	7.0162	-.00035	.0462	.00046
#2	.00021	7.0222	-.00031	.0173	.00024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.01901	.05432	.40989	.00068
Stddev	.00011	.00063	.00193	.01305	.00105
%RSD	187.02	3.2935	3.5525	3.1830	154.26

#1	.00002	.01857	.05568	.41912	.00143
#2	-.00014	.01946	.05295	.40067	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143813-5 TOT Acquired: 11/3/2018 3:45:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	1.5259	.00648	-.00117	2.0969	.01762
Stddev	.0112	.00004	.00000	.0115	.00002
%RSD	.73368	.56588	.13944	.54708	.10125

#1	1.5338	.00651	-.00117	2.1050	.01761
#2	1.5180	.00646	-.00117	2.0888	.01764

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00324	2.9085	-.00383	-.00450	5.3753
Stddev	.00015	.0043	.00175	.00016	.0149
%RSD	4.4898	.14730	45.630	3.5395	.27683

#1	.00334	2.9115	-.00259	-.00461	5.3648
#2	.00313	2.9055	-.00507	-.00439	5.3859

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00056	.07516	.00112	.00817	-.00038
Stddev	.00027	.00026	.00086	.00050	.00014
%RSD	48.090	.34154	77.162	6.0719	37.834

#1	.00075	.07498	.00051	.00852	-.00027
#2	.00037	.07534	.00173	.00782	-.00048

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143813-5 TOT Acquired: 11/3/2018 3:45:26 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.36272**
Stddev .00094
%RSD .25848

#1 **.36339**
#2 **.36206**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3239.3	3165.2	24960.	2971.7
Stddev	10.8	13.0	73.	1.5
%RSD	.33419	.40957	.29052	.04905

#1	3247.0	3174.4	24909.	2972.7
#2	3231.7	3156.0	25012.	2970.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	104.78%	98.971%	99.310%	98.520%
Range				

Sample Name: 143814-4 TOT Acquired: 11/3/2018 3:49:06 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00054	.14096	.00778	.00355	.02295
Stddev	.00039	.00714	.00204	.00026	.00006
%RSD	72.278	5.0651	26.257	7.2322	.24536

#1	-.00082	.14601	.00634	.00337	.02291
#2	-.00026	.13591	.00923	.00374	.02299

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	60.796	-.00032	-.0179	.00120
Stddev	.00010	.446	.00003	.0476	.00003
%RSD	254.17	.73277	8.8991	265.6	2.8178

#1	.00011	61.111	-.00030	-.0516	.00122
#2	-.00003	60.481	-.00034	.0157	.00118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00146	.00007	1.6134	6.9458	.02256
Stddev	.00049	.00020	.0140	.0007	.00035
%RSD	33.778	302.13	.86824	.01039	1.5333

#1	.00180	-.00008	1.6233	6.9452	.02232
#2	.00111	.00021	1.6035	6.9463	.02281

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143814-4 TOT Acquired: 11/3/2018 3:49:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	12.166	.55478	-.00006	7.2257	.00387
Stddev	.020	.00183	.00017	.0102	.00018
%RSD	.16261	.32912	283.96	.14119	4.5841

#1	12.152	.55348	.00006	7.2329	.00399
#2	12.180	.55607	-.00018	7.2185	.00374

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.32120	-.00321	-.00555	3.2161
Stddev	.00019	.00110	.00321	.00026	.0392
%RSD	82.831	.34338	100.06	4.7397	1.2195

#1	.00010	.32198	-.00548	-.00573	3.2439
#2	.00037	.32042	-.00094	-.00536	3.1884

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00071	.25511	.00147	.00649	.00336
Stddev	.00033	.00020	.00034	.00033	.00085
%RSD	46.528	.07654	23.287	5.0567	25.223

#1	.00047	.25525	.00171	.00672	.00396
#2	.00094	.25497	.00123	.00626	.00276

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143814-4 TOT Acquired: 11/3/2018 3:49:06 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.01597**
Stddev .00010
%RSD .63083

#1 **.01590**
#2 **.01604**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3204.1	3109.5	24997.	3012.5
Stddev	11.6	5.3	141.	24.1
%RSD	.36107	.16966	.56357	.80092

#1	3212.2	3113.2	25097.	2995.5
#2	3195.9	3105.8	24898.	3029.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.64%	97.229%	99.456%	99.874%
Range				

Sample Name: 143769-1 SOL Acquired: 11/3/2018 3:52:47 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-.04548	.00348	.00979	.00822
Stddev	.00005	.00447	.00030	.00027	.00002
%RSD	140.26	9.8305	8.5348	2.7865	.24294

#1	.00007	-.04231	.00327	.00960	.00820
#2	.00000	-.04864	.00369	.00999	.00823

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	26.803	-.00035	-.0184	.00037
Stddev	.00008	.034	.00003	.0094	.00010
%RSD	3395.5	.12702	9.5645	51.19	25.695

#1	-.00006	26.827	-.00033	-.0117	.00031
#2	.00005	26.779	-.00038	-.0250	.00044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00238	-.00120	.00179	.55083	.00056
Stddev	.00006	.00105	.00166	.02274	.00047
%RSD	2.4724	87.450	92.764	4.1287	83.925

#1	.00242	-.00194	.00062	.56691	.00089
#2	.00233	-.00046	.00297	.53475	.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143769-1 SOL Acquired: 11/3/2018 3:52:47 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	9.4772	-.00046	-.00089	4.0899	.00110
Stddev	.0052	.00006	.00004	.0061	.00007
%RSD	.05520	12.747	3.9760	.15013	6.3295

#1	9.4809	-.00042	-.00092	4.0856	.00105
#2	9.4735	-.00050	-.00087	4.0942	.00114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00321	1.8293	-.00352	-.00366	12.453
Stddev	.00047	.0007	.00075	.00011	.011
%RSD	14.497	.03915	21.263	2.9814	.08799

#1	.00288	1.8288	-.00404	-.00358	12.460
#2	.00354	1.8298	-.00299	-.00373	12.445

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.04696	.00031	.00862	.00383
Stddev	.00038	.00003	.00010	.00039	.00026
%RSD	213.76	.06699	32.296	4.5337	6.7371

#1	.00044	.04694	.00024	.00889	.00364
#2	-.00009	.04698	.00038	.00834	.00401

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143769-1 SOL Acquired: 11/3/2018 3:52:47 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00064**
 Stddev .00009
 %RSD 14.657

#1 **.00071**
 #2 **.00057**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3218.2	3140.5	24933.	2946.3
Stddev	11.3	8.7	35.	6.9
%RSD	.35100	.27639	.14180	.23418

#1	3226.2	3146.6	24958.	2941.4
#2	3210.2	3134.4	24908.	2951.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	104.10%	98.199%	99.200%	97.677%
Range				

Sample Name: BLANK Acquired: 11/3/2018 3:56:27 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00073	-.05900	.00134	.00030	.00006
Stddev	.00043	.03622	.00038	.00018	.00004
%RSD	59.048	61.390	28.530	60.326	67.295

#1	-.00104	-.08461	.00161	.00017	.00003
#2	-.00043	-.03339	.00107	.00043	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00002	.00786	-.00003	.0491	.00036
Stddev	.00007	.00282	.00008	.0243	.00015
%RSD	412.58	35.846	294.02	49.40	42.000

#1	-.00007	.00587	.00003	.0320	.00025
#2	.00003	.00985	-.00008	.0663	.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	-.00145	-.00037	-.08120	.00062
Stddev	.00000	.00053	.00093	.04214	.00003
%RSD	.67111	36.540	248.18	51.899	5.3049

#1	-.00025	-.00108	-.00103	-.05140	.00064
#2	-.00025	-.00182	.00028	-.11099	.00060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANK Acquired: 11/3/2018 3:56:27 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00309	-.00005	-.00055	-.03793	.00034
Stddev	.00506	.00004	.00012	.00512	.00044
%RSD	163.72	68.262	22.436	13.509	130.00

#1	-.00049	-.00008	-.00064	-.03430	.00065
#2	.00667	-.00003	-.00046	-.04155	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00082	-.00207	-.00260	-.00254	-.03179
Stddev	.00163	.00003	.00009	.00280	.00664
%RSD	199.43	1.3042	3.4435	110.11	20.892

#1	-.00034	-.00206	-.00253	-.00452	-.03649
#2	.00197	-.00209	-.00266	-.00056	-.02709

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-.00000	.00033	.00255	-.00040
Stddev	.00023	.00009	.00046	.00012	.00096
%RSD	216.31	2195.9	139.80	4.7837	242.90

#1	-.00006	.00006	.00066	.00264	.00028
#2	.00026	-.00007	.00000	.00246	-.00108

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANK Acquired: 11/3/2018 3:56:27 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00055**
 Stddev .00010
 %RSD 17.334

#1 **.00062**
 #2 **.00048**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3140.1	3096.2	24507.	2886.1
Stddev	4.2	7.3	53.	2.4
%RSD	.13366	.23697	.21487	.08402

#1	3137.2	3091.1	24544.	2887.8
#2	3143.1	3101.4	24470.	2884.4

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.57%	96.815%	97.505%	95.683%
Range				

Sample Name: ccv-4973140 Acquired: 11/3/2018 4:00:10 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56934	25.708	.53286	.50906	.52023
Stddev	.00035	.167	.00041	.00009	.00180
%RSD	.06109	.64901	.07659	.01757	.34642

#1	.56910	25.590	.53257	.50899	.51895
#2	.56959	25.826	.53315	.50912	.52150

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51134	26.855	.53295	.0575	.50873
Stddev	.00029	.012	.00135	.0298	.00034
%RSD	.05688	.04462	.25247	51.74	.06722

#1	.51155	26.847	.53200	.0786	.50897
#2	.51113	26.864	.53390	.0365	.50848

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51693	.53585	26.555	25.281	.50092
Stddev	.00047	.00368	.006	.065	.00047
%RSD	.09007	.68701	.02188	.25573	.09319

#1	.51660	.53324	26.559	25.235	.50125
#2	.51726	.53845	26.551	25.327	.50059

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 4:00:10 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.479	.54349	.50516	25.151	.50607
Stddev	.097	.00150	.00149	.054	.00162
%RSD	.36810	.27558	.29586	.21660	.31922

#1	26.410	.54243	.50621	25.190	.50493
#2	26.548	.54455	.50410	25.113	.50722

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51355	27.336	.52235	.52564	26.178
Stddev	.00172	.034	.00044	.00114	.054
%RSD	.33514	.12465	.08510	.21622	.20686

#1	.51233	27.312	.52267	.52484	26.140
#2	.51477	27.360	.52204	.52644	26.217

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53649	.53284	.53204	.48908	.51103
Stddev	.00028	.00237	.00295	.00037	.00092
%RSD	.05281	.44517	.55381	.07538	.18020

#1	.53629	.53452	.52996	.48934	.51038
#2	.53669	.53116	.53413	.48882	.51168

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 4:00:10 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
Units ppm
Avg **.52703**
Stddev .00137
%RSD .25944

#1 **.52800**
#2 **.52607**

Check ? **Chk Pass**
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3157.5	3090.4	24544.	2917.9
Stddev	3.2	3.5	80.	23.0
%RSD	.10161	.11464	.32779	.78888
#1	3155.2	3087.9	24601.	2934.2
#2	3159.8	3092.9	24488.	2901.6

Sample Name: ccb-4975309 Acquired: 11/3/2018 4:03:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	-.06381	.00187	.00115	.00008
Stddev	.00109	.05438	.00036	.00004	.00001
%RSD	155.33	85.223	19.085	3.5663	15.507

#1	-.00147	-.10226	.00212	.00118	.00007
#2	.00007	-.02536	.00162	.00112	.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.00511	.00013	-.0102	.00015
Stddev	.00003	.00135	.00023	.0301	.00020
%RSD	14.908	26.472	187.54	295.5	128.48

#1	.00024	-.00606	.00029	-.0315	.00029
#2	.00019	-.00415	-.00004	.0111	.00001

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00033	-.00175	.00371	.00296	-.00046
Stddev	.00013	.00010	.00058	.02564	.00013
%RSD	40.572	5.6363	15.598	865.17	29.356

#1	.00023	-.00168	.00330	-.01516	-.00036
#2	.00042	-.00181	.00412	.02109	-.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 4:03:37 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00438	.00012	.00088	-.04413	.00009
Stddev	.00286	.00001	.00036	.00554	.00064
%RSD	65.412	11.133	40.766	12.554	681.44

#1	-.00235	.00013	.00062	-.04804	.00055
#2	-.00640	.00011	.00113	-.04021	-.00036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00110	-.00300	-.00184	-.00001	-.03328
Stddev	.00076	.00024	.00063	.00169	.01499
%RSD	69.048	7.9822	34.329	25570.	45.051

#1	.00056	-.00317	-.00228	-.00120	-.02268
#2	.00164	-.00283	-.00139	.00119	-.04389

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00001	.00045	.00019	-.00147
Stddev	.00038	.00003	.00077	.00035	.00047
%RSD	1204.4	384.87	172.65	179.83	32.035

#1	-.00030	.00001	.00099	-.00005	-.00180
#2	.00024	-.00003	-.00010	.00044	-.00114

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 4:03:37 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00004**
 Stddev .00051
 %RSD 1325.6

#1 .00032
 #2 -.00040

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3166.3	3096.2	24361.	2929.6
Stddev	3.2	2.4	36.	.4
%RSD	.10153	.07860	.14924	.01201
#1	3168.6	3098.0	24387.	2929.9
#2	3164.0	3094.5	24335.	2929.4

Sample Name: ccvl-4970377 Acquired: 11/3/2018 4:07:21 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00527	.14128	.01860	.01931	.00210
Stddev	.00033	.00203	.00049	.00007	.00001
%RSD	6.2962	1.4397	2.6486	.34972	.44219

#1	.00504	.13984	.01825	.01926	.00209
#2	.00551	.14272	.01895	.01936	.00210

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00206	.55658	.00210	-.0160	.00418
Stddev	.00002	.00125	.00005	.0459	.00011
%RSD	.89127	.22405	2.4288	286.5	2.5924

#1	.00204	.55570	.00206	.0164	.00410
#2	.00207	.55746	.00213	-.0485	.00425

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00428	.00826	.05794	.49078	.02898
Stddev	.00006	.00015	.00697	.01160	.00009
%RSD	1.4156	1.8334	12.027	2.3630	.31095

#1	.00424	.00816	.05301	.48258	.02904
#2	.00433	.00837	.06286	.49898	.02892

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 4:07:21 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21149	.00313	.00905	.92561	.01098
Stddev	.00447	.00010	.00035	.00921	.00008
%RSD	2.1120	3.2462	3.8760	.99488	.74027

#1	.20833	.00305	.00880	.91910	.01104
#2	.21465	.00320	.00930	.93212	.01092

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01050	.20887	.01807	.02144	.47956
Stddev	.00071	.00205	.00018	.00047	.00877
%RSD	6.7200	.98366	1.0020	2.1820	1.8284

#1	.01000	.20742	.01794	.02177	.47336
#2	.01100	.21032	.01819	.02111	.48576

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01025	.00506	.00560	.02100	.00424
Stddev	.00036	.00011	.00030	.00090	.00051
%RSD	3.4668	2.1863	5.4440	4.2624	12.056

#1	.01050	.00514	.00539	.02037	.00388
#2	.01000	.00499	.00582	.02163	.00460

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 4:07:21 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01153**
 Stddev .00072
 %RSD 6.2566

#1 **.01102**
 #2 **.01204**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3191.7	3114.5	24511.	2925.5
Stddev	1.7	3.3	41.	5.6
%RSD	.05453	.10595	.16752	.19051
#1	3190.5	3116.8	24540.	2929.4
#2	3193.0	3112.2	24482.	2921.5

Sample Name: 143278-3 TOT Acquired: 11/3/2018 4:11:02 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00121	-.01779	.00674	.87669	.35774
Stddev	.00046	.00750	.00086	.00324	.00064
%RSD	38.111	42.165	12.786	.36959	.17960

#1	-.00088	-.02310	.00735	.87440	.35820
#2	-.00153	-.01249	.00613	.87898	.35729

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	77.343	-.00032	-.0428	.00300
Stddev	.00014	.098	.00006	.0209	.00007
%RSD	4358.4	.12615	18.412	48.87	2.2247

#1	-.00010	77.274	-.00028	-.0575	.00295
#2	.00009	77.412	-.00037	-.0280	.00304

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00080	.00274	33.639	51.459	.00140
Stddev	.00006	.00088	.060	.041	.00132
%RSD	7.1024	32.161	.17918	.08048	94.403

#1	.00084	.00212	33.682	51.430	.00046
#2	.00076	.00337	33.596	51.489	.00233

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143278-3 TOT Acquired: 11/3/2018 4:11:02 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	28.177	1.7716	.00517	212.00	.01945
Stddev	.036	.0008	.00058	.24	.00024
%RSD	.12719	.04440	11.281	.11412	1.2085

#1	28.152	1.7710	.00558	212.17	.01929
#2	28.203	1.7721	.00476	211.83	.01962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00302	2.4749	-.00267	-.00492	8.9020
Stddev	.00075	.0012	.00080	.00020	.0505
%RSD	24.885	.04933	30.059	4.0835	.56775

#1	.00355	2.4741	-.00210	-.00478	8.8663
#2	.00249	2.4758	-.00323	-.00506	8.9378

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00145	.45769	.00071	.00919	-.00007
Stddev	.00004	.00101	.00001	.00086	.00028
%RSD	2.7358	.22169	.87200	9.3894	386.28

#1	.00142	.45841	.00071	.00980	.00013
#2	.00147	.45698	.00070	.00858	-.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143278-3 TOT Acquired: 11/3/2018 4:11:02 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00120**
 Stddev .00012
 %RSD 9.8711

#1 **.00128**
 #2 **.00111**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3121.5	3099.5	25401.	2964.7
Stddev	12.6	15.2	138.	17.0
%RSD	.40262	.49003	.54145	.57334

#1	3130.4	3110.3	25498.	2976.7
#2	3112.6	3088.8	25304.	2952.6

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.97%	96.918%	101.06%	98.287%
Range				

Sample Name: 143278-4 TOT Acquired: 11/3/2018 4:14:39 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	-.01159	.00512	.29282	.03267
Stddev	.00103	.03208	.00298	.00018	.00008
%RSD	299.87	276.89	58.212	.06036	.24350

#1	.00038	-.03427	.00723	.29269	.03262
#2	-.00107	.01110	.00301	.29294	.03273

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00006	82.701	-.00028	-.0511	.00261
Stddev	.00006	.471	.00005	.0162	.00014
%RSD	102.30	.56913	17.032	31.81	5.2685

#1	.00010	83.034	-.00031	-.0396	.00251
#2	.00002	82.368	-.00025	-.0626	.00271

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00214	14.237	3.5486	.00051
Stddev	.00040	.00007	.006	.0113	.00092
%RSD	196.53	3.1199	.04047	.31882	180.40

#1	-.00008	.00209	14.241	3.5566	.00116
#2	.00048	.00219	14.233	3.5406	-.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143278-4 TOT Acquired: 11/3/2018 4:14:39 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	18.995	.84399	-.00096	52.110	.00400
Stddev	.052	.00116	.00012	.283	.00011
%RSD	.27559	.13756	12.242	.54371	2.8248

#1	18.958	.84317	-.00105	52.310	.00392
#2	19.032	.84481	-.00088	51.910	.00408

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00172	24.900	-.00264	.00234	7.2184
Stddev	.00021	.039	.00078	.00023	.0020
%RSD	12.205	.15518	29.526	9.8495	.02778

#1	.00187	24.928	-.00319	.00251	7.2198
#2	.00157	24.873	-.00209	.00218	7.2170

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00104	.26352	.00094	.00840	.00041
Stddev	.00015	.00001	.00037	.00043	.00008
%RSD	14.786	.00269	39.230	5.1634	20.205

#1	.00115	.26352	.00068	.00871	.00035
#2	.00093	.26353	.00120	.00809	.00047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143278-4 TOT Acquired: 11/3/2018 4:14:39 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00268**
 Stddev .00027
 %RSD 9.9150

#1 **.00287**
 #2 **.00249**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3188.5	3109.6	25079.	2958.4
Stddev	2.9	2.6	73.	5.0
%RSD	.09009	.08377	.29026	.16961

#1	3190.5	3111.5	25131.	2961.9
#2	3186.5	3107.8	25028.	2954.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.13%	97.234%	99.782%	98.078%
Range				

Sample Name: 143278-7 TOT Acquired: 11/3/2018 4:18:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00185	.04975	.00322	.63821	.09825
Stddev	.00011	.03350	.00172	.00083	.00016
%RSD	5.7575	67.339	53.499	.13076	.15890

#1	-.00178	.02606	.00444	.63762	.09814
#2	-.00193	.07344	.00200	.63880	.09836

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	33.337	-.00022	-.0425	.00035
Stddev	.00002	.157	.00012	.0101	.00010
%RSD	24.032	.47107	53.526	23.75	28.142

#1	.00008	33.448	-.00014	-.0354	.00028
#2	.00011	33.226	-.00031	-.0496	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	-.00096	.45250	1.3511	.00818
Stddev	.00019	.00107	.00352	.0380	.00270
%RSD	52.735	112.07	.77701	2.8159	32.991

#1	-.00048	-.00171	.45001	1.3242	.01009
#2	-.00022	-.00020	.45498	1.3780	.00627

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143278-7 TOT Acquired: 11/3/2018 4:18:17 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na8183	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	818.326 {41}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	8.3137	.01880	-.00029	64.184	.00307
Stddev	.0010	.00007	.00006	.269	.00048
%RSD	.01265	.39847	20.458	.41943	15.793

#1	8.3129	.01885	-.00025	64.374	.00341
#2	8.3144	.01874	-.00033	63.993	.00273

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00273	3.1467	-.00390	-.00232	10.679
Stddev	.00071	.0111	.00013	.00140	.063
%RSD	26.048	.35268	3.3662	60.229	.58682

#1	.00222	3.1545	-.00381	-.00331	10.635
#2	.00323	3.1388	-.00399	-.00133	10.724

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 {83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00102	1.4447	.00229	.00842	.00054
Stddev	.00007	.0002	.00015	.00028	.00061
%RSD	7.0469	.01096	6.5854	3.3158	111.87

#1	.00107	1.4446	.00218	.00822	.00097
#2	.00097	1.4448	.00240	.00862	.00011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143278-7 TOT Acquired: 11/3/2018 4:18:17 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01720**
 Stddev .00007
 %RSD .40748

#1 **.01715**
 #2 **.01725**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3195.5	3113.5	24952.	2936.6
Stddev	2.9	2.2	59.	1.5
%RSD	.09059	.06970	.23688	.05248

#1	3197.5	3115.0	24994.	2937.7
#2	3193.4	3111.9	24910.	2935.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.36%	97.353%	99.277%	97.357%
Range				

Sample Name: 143301-4 TOT Acquired: 11/3/2018 4:21:56 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00126	.25323	.00460	.06876	.09339
Stddev	.00026	.03752	.00019	.00010	.00010
%RSD	20.641	14.816	4.1730	.14418	.10840

#1	-.00108	.22670	.00474	.06869	.09346
#2	-.00144	.27976	.00447	.06883	.09332

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00014	42.017	-.00051	-.0330	.00128
Stddev	.00009	.208	.00007	.0500	.00009
%RSD	69.571	.49440	13.684	151.9	7.2279

#1	.00020	41.870	-.00056	.0024	.00122
#2	.00007	42.163	-.00046	-.0683	.00135

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00119	1.2749	.16859	.00129
Stddev	.00004	.00010	.0006	.01843	.00195
%RSD	18.140	8.0510	.05060	10.934	151.74

#1	-.00019	.00112	1.2754	.18162	.00267
#2	-.00024	.00126	1.2745	.15555	-.00009

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-4 TOT Acquired: 11/3/2018 4:21:56 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	11.751	.56837	-.00118	6.7936	.00277
Stddev	.009	.00046	.00000	.0251	.00009
%RSD	.08085	.08102	.13323	.36893	3.0905

#1	11.758	.56869	-.00118	6.7759	.00283
#2	11.745	.56804	-.00118	6.8113	.00271

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00219	19.057	-.00521	-.00461	10.271
Stddev	.00073	.043	.00018	.00013	.021
%RSD	33.334	.22811	3.4854	2.8413	.20020

#1	.00167	19.026	-.00534	-.00452	10.285
#2	.00270	19.088	-.00508	-.00470	10.256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00004	.11521	.00348	.00792	-.00008
Stddev	.00043	.00005	.00032	.00120	.00004
%RSD	1158.6	.04382	9.2719	15.194	50.011

#1	-.00027	.11524	.00326	.00707	-.00005
#2	.00034	.11517	.00371	.00877	-.00010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-4 TOT Acquired: 11/3/2018 4:21:56 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00182**
 Stddev .00083
 %RSD 45.751

#1 **.00123**
 #2 **.00241**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3209.3	3137.1	24960.	2923.3
Stddev	6.2	9.8	54.	37.9
%RSD	.19276	.31258	.21586	1.2951

#1	3213.7	3144.1	24998.	2950.1
#2	3205.0	3130.2	24922.	2896.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	103.81%	98.093%	99.308%	96.915%
Range				

Sample Name: 143301-6 TOT Acquired: 11/3/2018 4:25:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	97.257	.00887	.03461	.01597
Stddev	.00036	.030	.00080	.00014	.00004
%RSD	142.94	.03080	9.0112	.40200	.26906

#1	-.00051	97.236	.00944	.03470	.01594
#2	.00000	97.278	.00831	.03451	.01600

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.03380	404.11	.00033	.3248	.13595
Stddev	.00014	1.62	.00003	.0042	.00014
%RSD	.41230	.39978	8.0930	1.283	.09938

#1	.03390	402.97	.00035	.3277	.13586
#2	.03370	405.26	.00032	.3218	.13605

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01238	.02622	137.97	2.1027	.16421
Stddev	.00021	.00055	.08	.0179	.00065
%RSD	1.7020	2.0792	.05612	.85283	.39496

#1	.01223	.02583	137.91	2.0901	.16375
#2	.01253	.02660	138.02	2.1154	.16467

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-6 TOT Acquired: 11/3/2018 4:25:36 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(ln2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	130.11	1.7922	-.00270	17.398	.15637
Stddev	.16	.0027	.00010	.037	.00084
%RSD	.12608	.15247	3.6077	.21530	.53563

#1	130.23	1.7941	-.00263	17.424	.15578
#2	130.00	1.7903	-.00277	17.371	.15696

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(ln2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01638	F 624.64	-.00841	-.00518	48.464
Stddev	.00025	.54	.00132	.00119	.050
%RSD	1.5493	.08660	15.671	22.905	.10308

#1	.01656	624.25	-.00934	-.00434	48.499
#2	.01620	625.02	-.00748	-.00602	48.429

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		90.000			
Low Limit		-.20000			

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(ln2306)	(Y_3774)	(Y_3600)	(ln2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.57228	.00009	.00614	.09702
Stddev	.00049	.00145	.00059	.00101	.00010
%RSD	134.55	.25321	650.47	16.535	.10112

#1	-.00071	.57126	-.00033	.00685	.09709
#2	-.00002	.57331	.00051	.00542	.09695

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-6 TOT Acquired: 11/3/2018 4:25:36 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.34011**
 Stddev .00005
 %RSD .01603

#1 **.34007**
 #2 **.34015**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2999.6	3315.4	27163.	3193.6
Stddev	3.1	5.2	1.	32.6
%RSD	.10357	.15782	.00206	1.0215

#1	3001.8	3319.1	27164.	3216.6
#2	2997.4	3311.7	27163.	3170.5

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	97.024%	103.67%	108.07%	105.88%
Range				

Sample Name: 143301-8 TOT Acquired: 11/3/2018 4:29:10 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	1.7352	.00740	.01410	.09119
Stddev	.00013	.0042	.00194	.00021	.00028
%RSD	100.69	.24132	26.270	1.5155	.30704

#1	-.00023	1.7322	.00603	.01395	.09139
#2	-.00004	1.7382	.00878	.01425	.09099

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00028	86.065	.00020	.0444	.00202
Stddev	.00003	.037	.00008	.0222	.00021
%RSD	11.082	.04294	41.385	50.13	10.166

#1	.00030	86.039	.00014	.0601	.00217
#2	.00026	86.091	.00026	.0286	.00188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00480	.00255	7.2004	.95370	.00318
Stddev	.00048	.00150	.0489	.02200	.00205
%RSD	9.9015	58.933	.67956	2.3066	64.470

#1	.00513	.00361	7.2350	.93815	.00173
#2	.00446	.00149	7.1658	.96926	.00463

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-8 TOT Acquired: 11/3/2018 4:29:10 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	44.287	.38857	-.00157	20.554	.00743
Stddev	.005	.00003	.00021	.034	.00005
%RSD	.01082	.00801	13.186	.16618	.66754

#1	44.283	.38855	-.00172	20.530	.00746
#2	44.290	.38859	-.00143	20.578	.00739

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00632	87.303	-.00604	-.00649	14.790
Stddev	.00087	.004	.00058	.00157	.013
%RSD	13.756	.00481	9.5479	24.206	.09047

#1	.00693	87.306	-.00644	-.00538	14.781
#2	.00570	87.300	-.00563	-.00760	14.799

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.22720	.02624	.00891	.00788
Stddev	.00009	.00043	.00025	.00121	.00023
%RSD	31.235	.18813	.96926	13.583	2.8583

#1	.00023	.22690	.02606	.00977	.00772
#2	.00037	.22750	.02642	.00806	.00804

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-8 TOT Acquired: 11/3/2018 4:29:10 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Zn2062
Line 206.200 {163}
IS Ref (Y_3600)
Units ppm
Avg **.01014**
Stddev .00010
%RSD .96454

#1 **.01007**
#2 **.01021**

Check ? **Chk Pass**
High Limit
Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3170.8	3122.4	25037.	2950.4
Stddev	5.1	3.9	87.	8.0
%RSD	.16140	.12453	.34923	.27075

#1	3174.4	3125.2	25099.	2956.0
#2	3167.2	3119.7	24975.	2944.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.56%	97.633%	99.615%	97.813%
Range				

Sample Name: 143301-9 TOT Acquired: 11/3/2018 4:32:48 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00090	1.2882	.03854	.07874	.08860
Stddev	.00065	.0548	.00259	.00020	.00043
%RSD	72.200	4.2558	6.7211	.25219	.48163

#1	-.00136	1.2495	.03671	.07860	.08890
#2	-.00044	1.3270	.04037	.07888	.08830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00070	183.19	.00017	.0132	.01958
Stddev	.00012	1.58	.00012	.0187	.00008
%RSD	17.286	.86311	72.075	141.7	.42628

#1	.00062	184.30	.00025	-.0000	.01952
#2	.00079	182.07	.00008	.0265	.01964

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00326	.00266	32.808	2.5266	.00178
Stddev	.00007	.00024	.065	.0222	.00378
%RSD	2.2781	9.0373	.19941	.87990	212.20

#1	.00331	.00283	32.854	2.5424	-.00089
#2	.00321	.00249	32.761	2.5109	.00446

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-9 TOT Acquired: 11/3/2018 4:32:48 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	67.290	10.458	-.00199	19.441	.01003
Stddev	.010	.021	.00009	.103	.00013
%RSD	.01522	.20153	4.2958	.52772	1.3438

#1	67.298	10.473	-.00193	19.513	.00994
#2	67.283	10.443	-.00205	19.368	.01013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00758	86.600	-.00472	-.00388	14.152
Stddev	.00055	.201	.00014	.00163	.062
%RSD	7.2919	.23181	2.8827	41.898	.43671

#1	.00719	86.742	-.00462	-.00273	14.196
#2	.00797	86.458	-.00481	-.00503	14.109

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00101	.39907	.00248	.00879	.00249
Stddev	.00097	.00051	.00050	.00127	.00068
%RSD	95.895	.12898	20.149	14.482	27.203

#1	.00170	.39943	.00212	.00969	.00201
#2	.00033	.39871	.00283	.00789	.00297

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: 143301-9 TOT Acquired: 11/3/2018 4:32:48 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.01146**
 Stddev .00057
 %RSD 4.9490

#1 **.01186**
 #2 **.01106**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3108.4	3058.2	24798.	2910.7
Stddev	3.6	1.1	74.	18.3
%RSD	.11714	.03688	.29871	.63006

#1	3111.0	3059.0	24746.	2897.8
#2	3105.9	3057.4	24850.	2923.7

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	100.55%	95.626%	98.664%	96.499%
Range				

Sample Name: BLANK Acquired: 11/3/2018 4:36:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 {74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00009	-.01832	.00328	-.00085	.00007
Stddev	.00036	.00184	.00365	.00005	.00002
%RSD	419.66	10.057	111.40	5.5939	25.533

#1	.00017	-.01702	.00070	-.00081	.00009
#2	-.00034	-.01962	.00586	-.00088	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 {83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00010	.00677	-.00004	-.0388	.00022
Stddev	.00009	.00442	.00003	.0070	.00012
%RSD	89.339	65.280	74.393	18.13	52.879

#1	.00004	.00989	-.00007	-.0437	.00031
#2	.00016	.00364	-.00002	-.0338	.00014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 {44}	670.784 {50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	-.00127	.08909	-.00744	.00111
Stddev	.00050	.00057	.01559	.02564	.00236
%RSD	192.62	44.713	17.500	344.43	212.70

#1	.00009	-.00168	.07807	.01068	.00278
#2	-.00062	-.00087	.10012	-.02557	-.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANK Acquired: 11/3/2018 4:36:32 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00195	.00002	-.00063	-.04595	.00036
Stddev	.00160	.00011	.00025	.00284	.00013
%RSD	81.812	695.38	39.480	6.1736	35.202

#1	.00308	.00010	-.00081	-.04796	.00045
#2	.00082	-.00006	-.00046	-.04395	.00027

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.00197	-.00247	-.00329	-.01170
Stddev	.00014	.00140	.00050	.00189	.01632
%RSD	40.512	71.181	20.216	57.506	139.55

#1	-.00025	.00098	-.00212	-.00463	-.00016
#2	-.00044	.00296	-.00282	-.00195	-.02324

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00038	-.00009	.00078	.00366	-.00144
Stddev	.00008	.00023	.00100	.00005	.00009
%RSD	22.111	252.37	128.44	1.3541	6.0240

#1	-.00032	-.00025	.00149	.00362	-.00137
#2	-.00044	.00007	.00007	.00369	-.00150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANK Acquired: 11/3/2018 4:36:32 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00039**
 Stddev .00033
 %RSD 84.836

#1 **.00016**
 #2 **.00062**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.1	3104.8	24581.	2909.3
Stddev	2.2	2.3	22.	2.1
%RSD	.06910	.07458	.09050	.07385

#1	3154.6	3103.2	24565.	2910.8
#2	3151.5	3106.5	24597.	2907.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	101.99%	97.084%	97.800%	96.450%
Range				

Sample Name: BLANK Acquired: 11/3/2018 4:40:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
IS Ref	(Y_3600)	(Y_3774)	(Y_2243)	(Y_2243)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00070	-.03111	.00153	-.00108	.00001
Stddev	.00021	.01844	.00158	.00014	.00005
%RSD	30.133	59.287	103.17	13.188	329.50

#1	-.00055	-.04415	.00265	-.00098	-.00002
#2	-.00085	-.01807	.00041	-.00119	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
IS Ref	(Y_3774)	(Y_3774)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00015	.00430	-.00013	-.0020	.00043
Stddev	.00007	.00053	.00014	.0282	.00002
%RSD	45.560	12.337	107.21	1434.	3.6460

#1	.00020	.00393	-.00003	.0180	.00044
#2	.00010	.00468	-.00023	-.0219	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
IS Ref	(Y_3600)	(Y_3600)	(Y_3774)	(Y_3774)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00035	-.00095	.04313	.03780	-.00007
Stddev	.00045	.00060	.00968	.03564	.00016
%RSD	128.58	62.327	22.451	94.282	229.21

#1	-.00067	-.00053	.03628	.06300	.00004
#2	-.00003	-.00138	.04998	.01260	-.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANK Acquired: 11/3/2018 4:40:15 Type: Unk
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
IS Ref	(Y_3600)	(Y_3600)	(Y_2243)	(Y_3774)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00372	-.00004	-.00087	-.05217	.00076
Stddev	.00044	.00002	.00000	.00300	.00010
%RSD	11.875	57.019	.21980	5.7572	13.133

#1	-.00341	-.00002	-.00087	-.05005	.00069
#2	-.00403	-.00005	-.00087	-.05429	.00084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3774)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00133	-.00245	-.00683	-.04433
Stddev	.00135	.00073	.00136	.00265	.03066
%RSD	688.15	55.270	55.417	38.795	69.176

#1	.00115	.00184	-.00341	-.00871	-.06601
#2	-.00076	.00081	-.00149	-.00496	-.02264

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
IS Ref	(In2306)	(Y_3774)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00001	-.00004	.00244	-.00068
Stddev	.00037	.00003	.00050	.00143	.00005
%RSD	413.99	237.88	1246.6	58.740	7.7318

#1	.00036	-.00001	.00031	.00345	-.00071
#2	-.00017	.00004	-.00039	.00143	-.00064

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: BLANK Acquired: 11/3/2018 4:40:15 Type: Unk
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 IS Ref (Y_3600)
 Units ppm
 Avg **.00098**
 Stddev .00034
 %RSD 34.692

#1 **.00122**
 #2 **.00074**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3167.9	3118.6	24734.	2912.7
Stddev	2.7	5.7	54.	3.2
%RSD	.08600	.18293	.21981	.10974

#1	3169.8	3122.7	24696.	2910.5
#2	3166.0	3114.6	24772.	2915.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	102.47%	97.515%	98.409%	96.565%
Range				

Sample Name: ccv-4973140 Acquired: 11/3/2018 4:43:59 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .55749	25.711	.52740	.50687	.51162
Stddev	.00278	.092	.00121	.00046	.00106
%RSD	.49884	.35948	.22865	.09033	.20740

#1	.55945	25.777	.52825	.50655	.51237
#2	.55552	25.646	.52655	.50720	.51087

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51151	26.688	.53058	-.0210	.50507
Stddev	.00127	.204	.00011	.0333	.00003
%RSD	.24792	.76415	.02159	158.2	.00533

#1	.51241	26.833	.53066	-.0445	.50505
#2	.51062	26.544	.53050	.0025	.50509

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51317	.52352	26.570	25.196	.50424
Stddev	.00036	.00059	.057	.037	.00170
%RSD	.06965	.11300	.21313	.14504	.33691

#1	.51292	.52394	26.610	25.222	.50303
#2	.51343	.52311	26.530	25.170	.50544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 4:43:59 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.004	.53152	.50576	25.292	.50164
Stddev	.005	.00017	.00158	.042	.00029
%RSD	.01983	.03131	.31154	.16456	.05729

#1	26.000	.53163	.50688	25.321	.50185
#2	26.007	.53140	.50465	25.262	.50144

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50965	27.105	.51822	.51906	26.230
Stddev	.00096	.002	.00180	.00338	.017
%RSD	.18852	.00852	.34795	.65196	.06401

#1	.50897	27.107	.51695	.52145	26.218
#2	.51033	27.103	.51950	.51666	26.241

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53136	.52878	.52738	.48708	.50961
Stddev	.00002	.00233	.00025	.00119	.00139
%RSD	.00366	.44089	.04744	.24352	.27271

#1	.53134	.53043	.52721	.48791	.51060
#2	.53137	.52713	.52756	.48624	.50863

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 4:43:59 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062
Line	206.200 {163}
Units	ppm
Avg	.52341
Stddev	.00196
%RSD	.37391

#1	.52202
#2	.52479

Check ? Chk Pass
Value
Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3158.9	3089.9	24809.	2917.9
Stddev	5.0	4.3	15.	13.2
%RSD	.15865	.13935	.06196	.45102
#1	3162.4	3092.9	24820.	2908.6
#2	3155.3	3086.8	24798.	2927.2

Sample Name: ccb-4975309 Acquired: 11/3/2018 4:47:25 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00090	.01074	.00038	-.00036	.00007
Stddev	.00086	.02620	.00146	.00005	.00006
%RSD	95.875	243.93	383.02	12.638	88.089

#1	-.00029	-.00778	-.00065	-.00039	.00012
#2	-.00151	.02926	.00141	-.00033	.00003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	-.00399	.00012	.0242	.00010
Stddev	.00017	.00987	.00009	.0536	.00006
%RSD	94.137	247.10	75.625	222.0	56.616

#1	.00030	.00299	.00018	-.0138	.00014
#2	.00006	-.01097	.00005	.0621	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.00136	.03053	.00412	-.00079
Stddev	.00055	.00107	.00330	.01434	.00022
%RSD	154.12	78.612	10.817	347.89	27.702

#1	.00074	-.00061	.02819	-.00602	-.00063
#2	-.00003	-.00212	.03286	.01426	-.00094

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 4:47:25 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00163	.00008	.00060	-.05746	.00021
Stddev	.00185	.00003	.00047	.01715	.00023
%RSD	113.91	41.553	78.758	29.841	108.79

#1	-.00032	.00010	.00027	-.06959	.00037
#2	-.00294	.00006	.00094	-.04534	.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00031	.00088	-.00121	-.00182	-.01410
Stddev	.00155	.00007	.00096	.00182	.01271
%RSD	506.58	7.6873	79.402	99.654	90.122

#1	.00140	.00093	-.00189	-.00054	-.02309
#2	-.00079	.00083	-.00053	-.00311	-.00512

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00000	.00008	-.00003	-.00020	-.00050
Stddev	.00012	.00006	.00011	.00130	.00039
%RSD	6444.8	78.001	381.87	652.44	77.625

#1	.00009	.00012	.00005	-.00111	-.00078
#2	-.00009	.00004	-.00010	.00072	-.00023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 4:47:25 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00030**
 Stddev .00009
 %RSD 31.236

#1 **-.00023**
 #2 **-.00036**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3181.7	3119.8	24622.	2909.0
Stddev	7.8	6.2	118.	3.8
%RSD	.24500	.19797	.47884	.13225
#1	3176.2	3115.4	24539.	2906.3
#2	3187.2	3124.1	24705.	2911.8

Sample Name: ccvl-4970377 Acquired: 11/3/2018 4:51:10 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00626	.17125	.01644	.01913	.00210
Stddev	.00056	.01215	.00152	.00015	.00001
%RSD	9.0012	7.0927	9.2634	.80866	.32912

#1	.00666	.17983	.01751	.01902	.00210
#2	.00586	.16266	.01536	.01924	.00209

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00218	.55934	.00229	.0022	.00431
Stddev	.00001	.00404	.00002	.0328	.00022
%RSD	.40867	.72172	.84776	1480.	5.1451

#1	.00218	.55648	.00230	-.0210	.00447
#2	.00217	.56219	.00227	.0254	.00415

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00415	.00873	W .06789	.46960	.02736
Stddev	.00020	.00080	.00221	.07349	.00075
%RSD	4.7562	9.2086	3.2557	15.649	2.7266

#1	.00401	.00930	.06632	.52156	.02684
#2	.00429	.00817	.06945	.41763	.02789

Check ?	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value			.05000		
Range			30.000%		

Sample Name: ccvl-4970377 Acquired: 11/3/2018 4:51:10 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.21229	.00314	.00906	.92329	.01093
Stddev	.00200	.00014	.00007	.00988	.00027
%RSD	.94015	4.5221	.79510	1.0700	2.4363

#1	.21370	.00304	.00911	.91631	.01112
#2	.21088	.00324	.00901	.93028	.01074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00989	.20839	.01959	.02194	.52940
Stddev	.00054	.00252	.00018	.00147	.00530
%RSD	5.4644	1.2087	.92502	6.6801	1.0004

#1	.00951	.21017	.01946	.02090	.52566
#2	.01027	.20660	.01971	.02297	.53315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.01055	.00522	.00527	.02139	.00448
Stddev	.00000	.00016	.00020	.00160	.00027
%RSD	.04198	3.1046	3.8111	7.4864	6.1218

#1	.01055	.00510	.00512	.02026	.00468
#2	.01055	.00533	.00541	.02253	.00429

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccvl-4970377 Acquired: 11/3/2018 4:51:10 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.01135**
 Stddev .00016
 %RSD 1.3753

#1 **.01124**
 #2 **.01146**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3197.1	3127.4	24685.	2915.0
Stddev	4.0	8.5	47.	38.9
%RSD	.12444	.27072	.19051	1.3355
#1	3199.9	3133.4	24718.	2942.6
#2	3194.3	3121.4	24652.	2887.5

Sample Name: icsa-4901305 Acquired: 11/3/2018 4:54:52 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00164	509.66	-.00384	-.00348	.00105
Stddev	.00124	1.45	.00169	.00001	.00007
%RSD	75.436	.28547	44.060	.34475	6.2468

#1	-.00076	508.63	-.00264	-.00349	.00110
#2	-.00251	510.68	-.00504	-.00347	.00100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00009	513.30	-.00011	-.0409	-.00042
Stddev	.00007	1.40	.00013	.0419	.00002
%RSD	71.744	.27342	120.75	102.5	4.6813

#1	.00005	512.30	-.00020	-.0706	-.00043
#2	.00014	514.29	-.00002	-.0113	-.00041

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	.00406	183.99	-.01709	.00761
Stddev	.00056	.00086	.51	.01805	.00122
%RSD	681.97	21.159	.27675	105.64	16.001

#1	-.00048	.00345	183.63	-.00432	.00847
#2	.00031	.00467	184.35	-.02985	.00675

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: icsa-4901305 Acquired: 11/3/2018 4:54:52 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	562.64	-.00030	-.00282	-.00968	.00201
Stddev	1.08	.00018	.00014	.00038	.00019
%RSD	.19152	59.584	4.8655	3.8804	9.3137

#1	563.40	-.00017	-.00291	-.00994	.00215
#2	561.88	-.00043	-.00272	-.00941	.00188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00367	.02074	-.01113	-.00161	-.02210
Stddev	.00058	.00373	.00336	.00244	.00354
%RSD	15.684	17.968	30.153	151.48	15.997

#1	.00408	.01811	-.00876	-.00334	-.02460
#2	.00326	.02338	-.01351	.00011	-.01960

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00134	.01509	-.00072	-.00151	-.00358
Stddev	.00012	.00006	.00050	.00220	.00089
%RSD	8.9016	.38944	70.052	145.67	24.919

#1	-.00126	.01505	-.00108	.00005	-.00295
#2	-.00142	.01513	-.00036	-.00307	-.00421

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: icsa-4901305 Acquired: 11/3/2018 4:54:52 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.00320**
 Stddev .00093
 %RSD 29.038

#1 **.00254**
 #2 **.00386**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2772.7	2864.2	23417.	2851.6
Stddev	2.6	4.0	46.	9.5
%RSD	.09386	.14110	.19812	.33479
#1	2774.6	2867.1	23450.	2858.4
#2	2770.9	2861.4	23384.	2844.9

Sample Name: icsab-4954073 Acquired: 11/3/2018 4:58:34 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.23124	531.92	.09905	.00133	.53590
Stddev	.00037	2.10	.00040	.00066	.00007
%RSD	.15932	.39441	.40030	49.498	.01285

#1	.23098	533.40	.09933	.00180	.53595
#2	.23150	530.44	.09877	.00087	.53585

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.49768	513.80	1.0588	.0044	.48967
Stddev	.00110	1.55	.0006	.0716	.00054
%RSD	.22006	.30214	.05656	1613.	.11089

#1	.49845	514.89	1.0584	-.0462	.48928
#2	.49690	512.70	1.0592	.0551	.49005

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2714	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	271.441 {124}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.47367	.59199	90.729	.01657	.53343
Stddev	.00016	.00085	.081	.00903	.00039
%RSD	.03349	.14275	.08953	54.495	.07339

#1	.47378	.59259	90.672	.01019	.53370
#2	.47356	.59139	90.787	.02296	.53315

Check ?	Chk Pass	Chk Pass	Chk Pass	None	None
Value					
Range					

Sample Name: icsab-4954073 Acquired: 11/3/2018 4:58:34 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	571.97	.48775	-.00196	.13593	.94677
Stddev	1.96	.00007	.00005	.02759	.00072
%RSD	.34342	.01467	2.8008	20.297	.07571

#1	573.36	.48770	-.00192	.15544	.94728
#2	570.58	.48780	-.00199	.11642	.94627

Check ?	Chk Pass	Chk Pass	None	None	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.05604	1.0827	.60718	.04687	1.0438
Stddev	.00256	.0073	.00453	.00130	.0101
%RSD	4.5683	.67183	.74622	2.7641	.96450

#1	.05423	1.0776	.61038	.04779	1.0509
#2	.05785	1.0879	.60398	.04595	1.0367

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00233	.50651	.00008	.09830	.49843
Stddev	.00136	.00171	.00073	.00084	.00093
%RSD	58.478	.33733	922.04	.85239	.18707

#1	-.00136	.50771	.00059	.09770	.49909
#2	-.00329	.50530	-.00044	.09889	.49777

Check ?	None	None	None	Chk Pass	Chk Pass
Value					
Range					

Sample Name: icsab-4954073 Acquired: 11/3/2018 4:58:34 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.96256**
 Stddev .00316
 %RSD .32858

#1 **.96033**
 #2 **.96480**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2785.2	2875.7	23534.	2856.8
Stddev	2.7	.1	32.	3.3
%RSD	.09625	.00283	.13525	.11434
#1	2783.3	2875.7	23511.	2854.5
#2	2787.1	2875.8	23556.	2859.1

Sample Name: ccv-4973140 Acquired: 11/3/2018 5:02:11 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	F .56381	25.832	.52887	.50692	.51376
Stddev	.00022	.181	.00153	.00101	.00120
%RSD	.03836	.69933	.29013	.19935	.23421

#1	.56396	25.959	.52995	.50763	.51291
#2	.56366	25.704	.52778	.50620	.51461

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	.50000				
Range	10.000%				

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51207	26.852	.53232	-.0220	.50647
Stddev	.00039	.056	.00042	.0358	.00079
%RSD	.07708	.20823	.07956	162.8	.15575

#1	.51179	26.892	.53262	-.0473	.50591
#2	.51235	26.813	.53202	.0033	.50703

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value					
Range					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.51367	.52963	26.669	25.127	.50431
Stddev	.00054	.00166	.021	.021	.00080
%RSD	.10424	.31364	.07835	.08557	.15816

#1	.51329	.52846	26.684	25.142	.50374
#2	.51405	.53081	26.654	25.111	.50487

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 5:02:11 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	26.208	.53441	.50489	25.314	.50319
Stddev	.087	.00074	.00235	.011	.00006
%RSD	.33361	.13836	.46503	.04281	.01199

#1	26.146	.53389	.50655	25.321	.50314
#2	26.270	.53493	.50323	25.306	.50323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.50857	27.204	.52319	.52573	26.508
Stddev	.00013	.034	.00374	.00509	.077
%RSD	.02615	.12630	.71574	.96843	.29082

#1	.50867	27.228	.52054	.52933	26.562
#2	.50848	27.180	.52583	.52213	26.453

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.53429	.53084	.52981	.48798	.50841
Stddev	.00085	.00104	.00179	.00134	.00115
%RSD	.15918	.19531	.33794	.27515	.22603

#1	.53369	.53157	.52854	.48893	.50759
#2	.53489	.53011	.53108	.48704	.50922

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ccv-4973140 Acquired: 11/3/2018 5:02:11 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **.52302**
 Stddev .00043
 %RSD .08260

#1 **.52272**
 #2 **.52333**

Check ? **Chk Pass**
 Value
 Range

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3172.8	3099.2	24798.	2890.3
Stddev	2.9	.6	138.	26.8
%RSD	.08990	.02078	.55715	.92813
#1	3174.9	3099.6	24896.	2871.4
#2	3170.8	3098.7	24700.	2909.3

Sample Name: ccb-4975309 Acquired: 11/3/2018 5:05:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2089	Ba4554-2
Line	328.068 {103}	308.215 {109}	189.042 {478}	208.959 {461}	455.403 { 74}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00084	-.03247	.00181	-.00023	.00008
Stddev	.00009	.00172	.00158	.00027	.00002
%RSD	10.765	5.3121	87.097	116.17	27.027

#1	-.00077	-.03369	.00070	-.00042	.00010
#2	-.00090	-.03125	.00293	-.00004	.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Be3130	Ca3179	Cd2288	**Ce4040	Co2286
Line	313.042 {108}	317.933 {106}	228.802 {447}	404.076 { 83}	228.616 {447}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00119	-.00002	.0310	-.00010
Stddev	.00015	.00316	.00005	.0602	.00018
%RSD	86.265	265.55	270.11	194.2	171.32

#1	.00007	-.00105	.00002	.0736	-.00023
#2	.00029	.00343	-.00005	-.0116	.00002

Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit					
Low Limit					

Elem	Cr2677	Cu3273	Fe2599	K_7664	Li6707
Line	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}	670.784 { 50}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.00155	.00970	-.04171	-.00115
Stddev	.00011	.00052	.00213	.05735	.00159
%RSD	52.834	33.360	21.932	137.49	138.29

#1	.00013	-.00118	.00820	-.00116	-.00003
#2	.00029	-.00191	.01121	-.08226	-.00227

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 5:05:39 Type: QC
Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
User: jak Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	279.079 {121}2	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00509	.00020	.00049	-.04256	.00021
Stddev	.00355	.00004	.00011	.00330	.00057
%RSD	69.788	18.911	22.355	7.7588	277.53

#1	.00258	.00017	.00041	-.04490	-.00020
#2	.00761	.00023	.00056	-.04023	.00061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2881
Line	220.353 {453}	182.034 {485}	206.833 {463}	196.090 {472}	288.158 {117}2
Units	ppm	ppm	ppm	ppm	ppm
Avg	.00079	-.00201	-.00106	-.00384	-.02525
Stddev	.00018	.00128	.00034	.00161	.01124
%RSD	22.485	63.923	31.779	42.072	44.524

#1	.00066	-.00291	-.00082	-.00498	-.01730
#2	.00091	-.00110	-.00130	-.00270	-.03321

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Elem	Sn1899	Sr4077	Ti3349	Ti1908	V_2924
Line	189.989 {477}	407.771 { 83}	334.904 {101}	190.856 {477}	292.402 {115}
Units	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00008	.00113	-.00039	-.00123
Stddev	.00008	.00009	.00016	.00091	.00011
%RSD	175.76	117.88	14.560	235.05	9.0205

#1	.00001	-.00001	.00124	-.00103	-.00116
#2	-.00010	-.00014	.00101	.00026	-.00131

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ccb-4975309 Acquired: 11/3/2018 5:05:39 Type: QC
 Method: ICAP2 Oct2018(v25) Mode: CONC Corr. Factor: 1.000000
 User: jak Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem Zn2062
 Line 206.200 {163}
 Units ppm
 Avg **-.00041**
 Stddev .00044
 %RSD 107.03

#1 **-.00073**
 #2 **-.00010**

Check ? **Chk Pass**
 High Limit
 Low Limit

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3166.3	3105.6	24637.	2898.7
Stddev	.4	.2	103.	9.3
%RSD	.01311	.00781	.41778	.32078
#1	3166.6	3105.8	24565.	2892.1
#2	3166.0	3105.5	24710.	2905.3

Report Generated By Teledyne Leeman QuickTrace

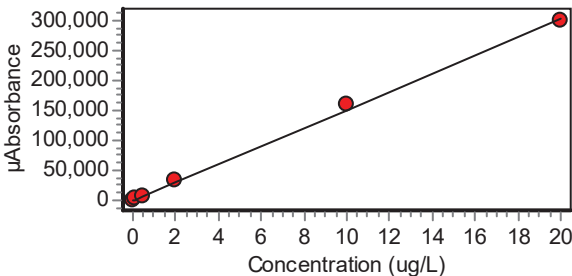
Analyst: admin,BB

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\L20181024A.wszf

Creation Date: 10/24/2018 1:14:14 PM

Comment: water

Results

Sample Name	Type	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
Single: chk	CCV	0.00	30725	0.34	Q		1.0000	0.00
Replicates		30647.4 30825.3 30805.0 30624.0						
Single: chk	CCV	0.00	32304	0.35	Q		1.0000	0.00
Replicates		32152.0 32388.9 32389.9 32285.9						
Calibration Blank	STD	0.00	-235	9.89	-19.41		1.0000	N/A
Replicates		-248.4 -214.1 -260.6 -216.3						
Standard #1 (0.1 ug/L)	STD	0.10	1571	0.53	-0.87		1.0000	N/A
Replicates		1573.6 1578.7 1571.7 1559.0						
Standard #2 (0.5 ug/L)	STD	0.50	7862	0.64	12.18		1.0000	N/A
Replicates		7903.7 7901.9 7843.7 7800.2						
Standard #3 (2.0 ug/L)	STD	2.00	32134	0.61	105.61		1.0000	N/A
Replicates		32238.9 32306.2 32125.5 31864.2						
Standard #4 (10. ug/L)	STD	10.00	158707	0.61	415.24		1.0000	N/A
Replicates		159165.9 159611.9 158693.6 157355.9						
Standard #5 (20. ug/L)	STD	20.00	299030	0.46	-372.40		1.0000	N/A
Replicates		299197.2 300468.4 299279.4 297176.4						
Calibration								
Equation:	Abs = 15232.094x + 60.861							
R2:	0.99899							
SEE:	4326.9950							
Flags:								
								
ICV	ICV	3.18	48441	0.61			1.0000	105.87
Replicates		48445.8 48744.9 48529.4 48043.4						
ICB	ICB	0.00	2	24.30			1.0000	N/A
Replicates		1.8 -1.4 -13.4 21.1						
ICVL	CRDL	0.20	3127	0.95			1.0000	100.66
Replicates		3134.9 3163.2 3117.7 3093.7						
CCV	CCV	2.11	32206	0.68			1.0000	105.52
Replicates		32264.7 32409.9 32254.4 31896.4						
CCB	CCB	0.00	-5	29.54			1.0000	N/A
Replicates		-17.0 16.8 5.1 -25.4						

Sample Name		Type	Conc (ug/L)	μAbs	%RSD	Residual	Flags	DF	% Recovery
MB 480-441387/1-A		UNK	0.01	-119	5.88			1.0000	N/A
Replicates	-111.0	-126.9	-115.9	-120.9					
LCS 480-441387/2-A		UNK	4.00	60451	0.67			1.0000	N/A
Replicates	60754.0	60818.9	60274.9	59956.6					
480-143164-A-4-D		UNK	0.24	3441	0.68			1.0000	N/A
Replicates	3443.9	3464.0	3450.0	3405.5					
480-143278-D-1-E		UNK	0.02	53	3.82			1.0000	N/A
Replicates	66.2	43.9	43.7	57.4					
480-143278-D-2-C		UNK	0.02	77	4.23			1.0000	N/A
Replicates	90.7	79.4	80.4	59.1					
480-143278-D-3-C		UNK	0.02	50	4.07			1.0000	N/A
Replicates	55.1	52.5	60.5	33.8					
480-143278-D-4-C		UNK	0.02	59	3.09			1.0000	N/A
Replicates	59.5	71.3	50.0	55.0					
480-143278-D-5-C		UNK	0.02	32	7.32			1.0000	N/A
Replicates	41.5	52.7	27.2	7.4					
480-143278-D-6-C		UNK	0.02	77	3.24			1.0000	N/A
Replicates	92.4	74.6	70.9	71.6					
480-143278-D-7-C		UNK	0.02	55	8.05			1.0000	N/A
Replicates	34.0	81.7	66.9	36.7					
CCV		CCV	2.10	31631	0.69			1.0000	105.11
Replicates	31739.0	31823.2	31643.0	31320.5					
CCB		CCB	0.02	8	8.18			1.0000	N/A
Replicates	22.1	27.2	-6.6	-12.1					
480-143610-C-1-A		UNK	0.02	24	4.01			1.0000	N/A
Replicates	20.5	31.9	33.9	11.6					
480-143588-C-1-A		UNK	0.02	26	2.68			1.0000	N/A
Replicates	18.4	32.3	31.6	21.8					
480-143588-C-1-Asd@5		UNK	0.02	33	6.85			1.0000	N/A
Replicates	44.8	7.5	47.7	31.5					
480-143588-C-1-B MS		UNK	4.07	61392	0.36			1.0000	N/A
Replicates	61496.6	61616.2	61357.4	61098.7					
480-143588-C-1-C MSD		UNK	4.01	60530	0.44			1.0000	N/A
Replicates	60725.9	60754.0	60461.0	60177.3					
RINSE		UNK	0.01	-17	3.95			1.0000	N/A
Replicates	-21.3	-20.2	-4.2	-22.5					
RINSE		UNK	0.02	17	9.56			1.0000	N/A
Replicates	-14.1	18.9	17.9	44.7					

Sample Name			Type	Conc (ug/L)		µAbs	%RSD	Residual	Flags	DF	% Recovery
RINSE			UNK	0.02		11	7.90			1.0000	N/A
Replicates	11.0	-4.3	38.2	-1.6							
RINSE			UNK	0.02		-2	2.48			1.0000	N/A
Replicates	-3.4	-2.6	6.1	-7.6							
RINSE			UNK	0.02		-4	8.72			1.0000	N/A
Replicates	-1.2	12.3	7.0	-32.8							
CCV			CCV	2.11		31817	0.61			1.0000	105.72
Replicates	31849.4	32040.0	31812.0	31566.5							
CCB			CCB	0.01		-9	3.95			1.0000	N/A
Replicates	-0.8	-15.4	-0.9	-17.1							
480-143193-A-1-B			UNK	0.02		9	5.22			1.0000	N/A
Replicates	12.1	-5.1	3.4	24.7							
490-161590-J-1-A			UNK	0.02		15	5.08			1.0000	N/A
Replicates	29.5	21.5	2.2	6.7							
490-161591-J-1-A			UNK	0.02		15	3.24			1.0000	N/A
Replicates	20.6	3.6	14.4	20.9							
490-161397-J-1-A			UNK	0.02		21	6.57			1.0000	N/A
Replicates	34.1	-1.5	17.3	33.5							
490-161392-J-1-A			UNK	0.01		-8	3.75			1.0000	N/A
Replicates	-19.2	-9.0	-1.5	-1.0							
MB 480-441391/1-A			UNK	0.02		6	4.22			1.0000	N/A
Replicates	11.2	-7.6	15.9	5.2							
LCS 480-441391/2-A			UNK	3.93		59371	0.45			1.0000	N/A
Replicates	59638.0	59544.5	59246.8	59055.5							
LCSD 480-441391/3-A			UNK	3.99		60294	0.40			1.0000	N/A
Replicates	60453.3	60526.5	60204.5	59991.8							
480-143836-B-8-A			UNK	0.02		95	3.74			1.0000	N/A
Replicates	109.8	82.0	100.0	88.3							
480-143869-B-1-A			UNK	0.02		-7	8.52			1.0000	N/A
Replicates	1.6	-35.6	5.9	1.6							
CCV			CCV	2.11		31681	0.57			1.0000	105.28
Replicates	31720.9	31864.3	31707.3	31431.6							
CCB			CCB	0.01		-9	10.48			1.0000	N/A
Replicates	8.0	0.4	-44.1	-0.6							
480-143841-A-2-A			UNK	0.02		66	5.47			1.0000	N/A
Replicates	59.5	48.2	69.7	87.0							
480-143841-A-3-A			UNK	0.06		618	2.22			1.0000	N/A
Replicates	609.3	616.7	644.2	600.2							

Sample Name		Type	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-143841-A-4-A		UNK	0.04	364	1.31			1.0000	N/A
Replicates	366.6	368.2 370.2	352.9						
480-143841-A-5-B		UNK	0.03	233	2.06			1.0000	N/A
Replicates	231.9	219.5 240.5	239.3						
480-143841-A-6-B		UNK	0.02	78	6.21			1.0000	N/A
Replicates	103.3	62.4 82.4	62.9						
480-143841-A-7-B		UNK	0.03	161	5.06			1.0000	N/A
Replicates	184.4	167.8 136.8	155.8						
480-143841-A-8-B		UNK	0.02	124	3.27			1.0000	N/A
Replicates	119.6	109.6 127.9	137.1						
480-143841-A-11-B		UNK	0.02	58	4.71			1.0000	N/A
Replicates	65.0	38.6 70.1	57.9						
480-143841-A-12-A		UNK	0.04	324	5.21			1.0000	N/A
Replicates	288.2	313.4 354.4	339.1						
480-143899-C-1-D		UNK	0.02	10	3.17			1.0000	N/A
Replicates	4.0	19.7 3.7	13.5						
CCV		CCV	2.10	31666	0.60			1.0000	105.23
Replicates	31676.6	31866.0 31714.5	31406.2						
CCB		CCB	0.02	7	14.38			1.0000	N/A
Replicates	48.2	-3.5 18.0	-34.3						
480-143899-C-1-Dsd@5		UNK	0.02	60	2.81			1.0000	N/A
Replicates	48.1	64.6 65.3	64.1						
480-143899-C-1-E MS		UNK	4.17	63023	0.46			1.0000	N/A
Replicates	63195.9	63267.0 63010.0	62617.0						
480-143899-C-1-F MSD		UNK	4.23	63906	0.42			1.0000	N/A
Replicates	64052.4	64150.3 63880.8	63542.3						
480-143899-C-2-B		UNK	0.01	-16	7.57			1.0000	N/A
Replicates	1.7	-16.1 -38.1	-11.3						
480-143899-C-3-B		UNK	0.02	17	8.61			1.0000	N/A
Replicates	40.1	24.1 17.4	-11.9						
480-143899-C-4-B		UNK	0.02	1	3.56			1.0000	N/A
Replicates	10.9	0.9 -9.6	0.6						
480-143899-C-5-B		UNK	0.02	58	7.03			1.0000	N/A
Replicates	32.1	53.2 81.2	64.2						
480-143298-A-1-A		UNK	0.02	10	5.22			1.0000	N/A
Replicates	23.7	4.7 -5.6	15.4						
480-143339-C-2-D		UNK	0.02	65	3.43			1.0000	N/A
Replicates	67.9	58.8 55.3	78.3						

Sample Name		Type	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-143339-C-3-C		UNK	0.02	40	5.89			1.0000	N/A
Replicates	37.3	29.0	63.8	30.3					
CCV		CCV	2.10	31587	0.65			1.0000	104.97
Replicates	31640.5	31779.5	31632.5	31294.8					
CCB		CCB	0.02	21	7.00			1.0000	N/A
Replicates	37.7	3.0	35.5	8.7					
480-143339-C-4-D		UNK	0.36	5249	0.16			1.0000	N/A
Replicates	5241.6	5245.3	5261.3	5246.6					
LB 480-441152/1-C		UNK	0.02	22	5.99			1.0000	N/A
Replicates	29.1	18.3	38.1	2.3					
MB 480-441395/2-A		UNK	0.02	16	3.95			1.0000	N/A
Replicates	11.9	9.1	12.8	30.8					
LCS 480-441395/3-A		UNK	4.16	62770	0.38			1.0000	N/A
Replicates	62884.3	62996.8	62760.8	62439.5					
480-143414-B-1-G		UNK	0.02	29	6.42			1.0000	N/A
Replicates	38.8	19.8	9.5	46.3					
480-143443-A-1-F		UNK	0.02	65	3.68			1.0000	N/A
Replicates	66.0	78.9	51.9	64.2					
480-143443-A-1-Fsd@5		UNK	0.02	70	7.76			1.0000	N/A
Replicates	82.2	37.8	92.3	69.6					
480-143443-A-1-G MS		UNK	4.05	61203	0.55			1.0000	N/A
Replicates	61358.4	61533.7	61165.2	60753.7					
480-143443-A-1-H MSD		UNK	3.95	59703	0.66			1.0000	N/A
Replicates	59954.3	60020.2	59682.5	59156.2					
LB2 480-441192/1-C		UNK	0.02	0	3.97			1.0000	N/A
Replicates	3.4	6.5	3.3	-14.0					
CCV		CCV	2.12	31917	0.62			1.0000	106.05
Replicates	31990.4	32090.0	31960.3	31627.5					
CCB		CCB	0.02	9	9.78			1.0000	N/A
Replicates	37.9	-18.1	16.4	0.1					
MB 480-441397/2-A		UNK	0.02	4	5.56			1.0000	N/A
Replicates	3.1	-10.4	21.8	2.3					
LCS 480-441397/3-A		UNK	4.01	60573	0.44			1.0000	N/A
Replicates	60654.0	60847.0	60586.0	60205.0					
480-143253-A-2-G		UNK	0.26	3780	0.48			1.0000	N/A
Replicates	3803.1	3789.1	3766.4	3761.9					
480-143253-A-4-G		UNK	0.06	712	2.01			1.0000	N/A
Replicates	719.9	725.5	683.7	718.7					

Sample Name		Type	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-143253-A-10-J		UNK	0.10	1316	1.63			1.0000	N/A
Replicates	1341.8	1328.8	1308.3	1284.0					
480-143253-A-5-Z		UNK	0.05	521	3.64			1.0000	N/A
Replicates	528.4	494.6	503.6	555.9					
480-143253-A-5-Zsd@5		UNK	0.03	170	4.18			1.0000	N/A
Replicates	169.3	181.3	182.5	146.0					
480-143253-A-5-X MS		UNK	3.79	57178	0.43			1.0000	N/A
Replicates	57321.2	57388.3	57168.5	56832.5					
480-143253-A-5-Y MSD		UNK	3.73	56264	0.56			1.0000	N/A
Replicates	56475.0	56541.9	56191.4	55845.9					
480-143253-A-6-G		UNK	0.06	698	0.74			1.0000	N/A
Replicates	696.6	698.7	707.5	690.7					
CCV		CCV	2.07	31089	0.86			1.0000	103.32
Replicates	31245.3	31295.1	31115.8	30700.3					
CCB		CCB	0.02	7	3.78			1.0000	N/A
Replicates	10.0	8.6	15.1	-6.2					
CCVL		CRDL	0.21	2998	0.62			1.0000	106.64
Replicates	2996.0	3026.3	2990.8	2979.5					
MB 480-441491/1-A		UNK	0.02	21	3.18			1.0000	N/A
Replicates	9.3	21.0	27.2	25.7					
LCS 480-441491/2-A		UNK	3.98	60159	0.60			1.0000	N/A
Replicates	60395.0	60440.7	60143.2	59655.4					
LCSD 480-441491/3-A		UNK	3.99	60303	0.48			1.0000	N/A
Replicates	60472.9	60556.5	60282.7	59901.7					
480-143987-G-1-B		UNK	0.02	53	1.44			1.0000	N/A
Replicates	50.8	57.3	48.0	55.0					
480-143987-G-2-B		UNK	0.02	37	3.30			1.0000	N/A
Replicates	30.1	50.3	34.3	33.8					
480-143987-G-3-B		UNK	0.02	49	9.98			1.0000	N/A
Replicates	57.8	7.3	70.3	60.8					
480-143987-G-4-B		UNK	0.02	42	3.01			1.0000	N/A
Replicates	34.8	36.8	42.8	53.3					
480-143987-G-5-B		UNK	0.02	35	5.87			1.0000	N/A
Replicates	46.3	22.7	21.0	51.7					
480-143987-G-5-Bsd@5		UNK	0.02	65	3.49			1.0000	N/A
Replicates	66.9	55.6	79.4	59.4					
480-143987-G-5-C MS		UNK	3.99	60201	0.41			1.0000	N/A
Replicates	60340.8	60430.2	60162.0	59872.7					

Sample Name			Type	Conc (ug/L)	μAbs	%RSD	Residual	Flags	DF	% Recovery
CCV			CCV	2.09	31372	0.53			1.0000	104.25
Replicates	31393.0	31531.4	31425.6	31136.1						
CCB			CCB	0.02	13	1.85			1.0000	N/A
Replicates	10.3	9.8	19.8	13.8						
480-143987-G-5-D MSD			UNK	3.95	59692	0.47			1.0000	N/A
Replicates	59811.5	59959.9	59697.9	59298.9						
CCV			CCV	2.09	31374	0.57			1.0000	104.26
Replicates	31392.4	31567.8	31401.6	31135.1						
CCB			CCB	0.02	-7	1.13			1.0000	N/A
Replicates	-7.5	-7.0	-10.7	-4.5						
CCVL			CRDL	0.22	3061	0.37			1.0000	108.72
Replicates	3072.3	3055.0	3070.7	3047.2						
RINSE			UNK	0.02	6	5.75			1.0000	N/A
Replicates	-14.7	7.9	13.9	14.9						

Report Generated By Teledyne Leeman QuickTrace

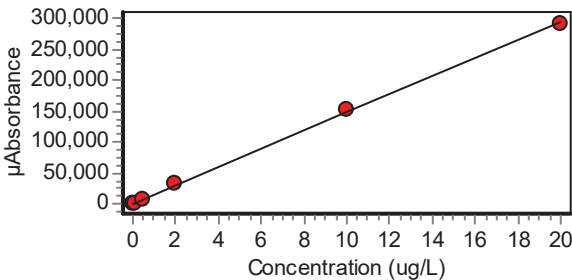
Analyst: BufHG5,CLA

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\L20181029A.wszf

Creation Date: 10/29/2018 1:06:03 PM

Comment:

Results

Sample Name	Type	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
Single: std chk	PBK	0.00	26	68.33			1.0000	N/A
Replicates		-0.4 37.3 32.1 33.1						
Calibration Blank	STD	0.00	10	73.38	-4.05		1.0000	N/A
Replicates		17.1 10.5 12.8 -0.2						
Standard #1 (0.1 ug/L)	STD	0.10	1555	0.97	0.49		1.0000	N/A
Replicates		1558.5 1573.8 1546.1 1539.8						
Standard #2 (0.5 ug/L)	STD	0.50	7657	0.97	13.57		1.0000	N/A
Replicates		7750.4 7682.8 7608.6 7587.1						
Standard #3 (2.0 ug/L)	STD	2.00	30924	1.04	88.46		1.0000	N/A
Replicates		31178.6 31164.7 30855.5 30498.2						
Standard #4 (10. ug/L)	STD	10.00	151584	0.93	255.61		1.0000	N/A
Replicates		152790.4 152544.7 151278.5 149721.5						
Standard #5 (20. ug/L)	STD	20.00	291139	0.83	-298.27		1.0000	N/A
Replicates		293058.8 292795.8 290894.8 287804.6						
Calibration								
Equation: Abs = 14773.754x + 69.911								
R2: 0.99949								
SEE: 2976.1410								
Flags:								
								
Single: std chk	ICV	3.21	47184	0.92		Q	1.0000	107.09
Replicates		47577.6 47448.6 47104.1 46604.3						
Single: chk std	ICV	3.13	45934	0.85			1.0000	104.26
Replicates		46167.0 46255.4 45922.1 45391.4						
ICV	ICV	3.13	46039	0.79			1.0000	104.49
Replicates		46267.2 46326.0 46032.5 45530.3						
ICB	ICB	0.00	-18	60.99			1.0000	N/A
Replicates		0.6 -39.5 -11.0 -21.8						
ICVL	CRDL	2.14	31410	0.71		Y	1.0000	1069.25
Replicates		31547.0 31612.6 31364.6 31115.6						
CCV	CCV	0.21	3080	1.02		Q	1.0000	10.46
Replicates		3109.9 3100.6 3070.4 3040.9						

Sample Name			Type	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
CCB			CCB	0.00	-3	150.87			1.0000	N/A
Replicates	4.1	-30.3	-2.0	16.2						
ICVL			CRDL	0.21	3098	0.68			1.0000	105.14
Replicates	3119.6	3104.6	3096.8	3069.6						
CCV			CCV	2.14	31383	0.99			1.0000	106.83
Replicates	31601.4	31613.3	31369.3	30949.1						
CCB			CCB	0.00	5	258.90			1.0000	N/A
Replicates	3.3	23.4	-1.6	-4.1						
MB 480-442300/1-A			UNK	0.00	-61	15.03			1.0000	N/A
Replicates	-47.6	-73.7	-60.7	-60.9						
LCS 480-442300/2-A			UNK	4.53	66518	0.47			1.0000	N/A
Replicates	66637.1	66837.8	66503.5	66093.5						
LCSD 480-442300/3-A			UNK	4.44	65149	0.52			1.0000	N/A
Replicates	65293.4	65481.1	65141.1	64680.6						
480-143404-C-1-C			UNK	0.00	10	156.53			1.0000	N/A
Replicates	21.6	-0.2	2.8	14.1						
480-143404-C-2-C			UNK	0.00	65	30.38			1.0000	N/A
Replicates	60.7	58.7	51.2	89.2						
480-143404-C-3-C			UNK	0.00	39	22.42			1.0000	N/A
Replicates	30.8	43.7	45.4	37.9						
480-143404-C-4-C			UNK	0.00	12	786.94			1.0000	N/A
Replicates	13.8	22.9	-7.6	18.1						
480-143404-C-4-Csd@5			UNK	0.00	52	37.55			1.0000	N/A
Replicates	59.0	29.5	65.3	52.8						
480-143404-C-4-D MS			UNK	4.04	59345	0.41			1.0000	N/A
Replicates	59223.8	59641.6	59426.3	59090.1						
480-143404-C-4-E MSD			UNK	4.10	60198	0.42			1.0000	N/A
Replicates	60063.0	60493.5	60307.7	59926.5						
CCV			CCV	2.12	31086	0.71			1.0000	105.82
Replicates	31199.0	31266.7	31109.7	30768.4						
CCB			CCB	0.00	25	86.09			1.0000	N/A
Replicates	34.7	31.0	27.3	6.3						
480-144000-C-23-B			UNK	1.36	19955	0.47			1.0000	N/A
Replicates	19960.3	20038.8	19997.8	19824.3						
480-143869-B-1-C			UNK	0.00	17	280.65			1.0000	N/A
Replicates	36.8	20.3	-8.7	18.6						
480-143947-A-1-C			UNK	0.00	57	32.54			1.0000	N/A
Replicates	59.6	35.9	61.9	72.4						

Sample Name		Type	Conc (ug/L)	μAbs	%RSD	Residual	Flags	DF	% Recovery
480-143947-A-5-C		UNK	0.02	253	7.85			1.0000	N/A
Replicates	246.7	237.0 281.0	249.0						
480-143947-A-6-C		UNK	0.00	46	31.41			1.0000	N/A
Replicates	50.8	29.5 54.7	50.0						
480-143979-B-1-C		UNK	0.00	47	59.16			1.0000	N/A
Replicates	28.0	33.3 76.8	50.8						
480-143940-H-1-B		UNK	0.03	472	2.22			1.0000	N/A
Replicates	460.8	471.7 485.7	470.4						
480-143940-H-2-B		UNK	0.03	507	5.26			1.0000	N/A
Replicates	536.2	519.9 491.4	478.9						
480-143941-H-1-B		UNK	0.01	151	9.93			1.0000	N/A
Replicates	163.5	131.2 157.0	154.2						
04962413		UNK	0.00	-8	105.13			1.0000	N/A
Replicates	14.2	1.5 -22.7	-23.2						
CCV		CCV	2.11	30975	0.80			1.0000	105.44
Replicates	31139.1	31162.5 30969.2	30628.2						
CCB		CCB	0.00	-2	88.27			1.0000	N/A
Replicates	-12.6	2.2 10.9	-7.6						
480-144013-D-1-B		UNK	0.00	23	108.40			1.0000	N/A
Replicates	26.0	3.0 35.0	27.0						
480-143696-Y-1-B		UNK	0.00	44	59.23			1.0000	N/A
Replicates	56.0	13.9 52.4	53.9						
480-143869-A-3-B		UNK	0.00	11	475.32			1.0000	N/A
Replicates	26.2	-27.8 20.2	24.7						
480-143869-B-5-A		UNK	0.00	28	159.50			1.0000	N/A
Replicates	48.9	28.2 45.0	-12.0						
480-143802-B-8-B		UNK	0.00	7	383.31			1.0000	N/A
Replicates	13.2	19.6 -6.9	2.1						
480-144082-I-1-D		UNK	0.00	37	44.16			1.0000	N/A
Replicates	28.7	39.9 26.6	52.4						
480-144082-I-2-B		UNK	0.00	11	206.69			1.0000	N/A
Replicates	20.7	-10.3 14.2	20.5						
MB 480-442301/1-A		UNK	0.00	35	67.49			1.0000	N/A
Replicates	16.4	50.9 25.4	47.9						
LCS 480-442301/2-A		UNK	4.36	64023	0.51			1.0000	N/A
Replicates	64202.5	64323.2 63988.2	63577.2						
480-144022-D-3-D		UNK	0.00	75	19.05			1.0000	N/A
Replicates	76.7	91.6 62.4	70.1						

Sample Name	Type	Conc (ug/L)	μAbs	%RSD	Residual	Flags	DF	% Recovery
CCV	CCV	2.13	31276	0.47			1.0000	106.47
Replicates	31250.4	31417.9	31353.7	31082.4				
CCB	CCB	0.00	28	42.86			1.0000	N/A
Replicates	31.6	36.5	18.8	25.3				
480-144062-C-1-B	UNK	0.00	25	112.81			1.0000	N/A
Replicates	5.5	16.4	37.4	39.9				
480-143870-A-1-C	UNK	0.00	6	180.01			1.0000	N/A
Replicates	1.1	2.9	17.6	0.6				
480-143870-B-2-C	UNK	0.00	10	595.75			1.0000	N/A
Replicates	-7.5	37.3	-0.5	12.3				
480-143870-B-3-C	UNK	0.00	10	384.10			1.0000	N/A
Replicates	17.6	17.3	-6.4	11.3				
480-143996-C-1-A	UNK	0.00	12	122.79			1.0000	N/A
Replicates	11.4	16.0	10.5	10.8				
480-143996-C-1-Asd@5	UNK	0.00	48	39.85			1.0000	N/A
Replicates	42.7	37.5	70.5	41.5				
480-143996-C-1-B MS	UNK	4.13	60695	0.41			1.0000	N/A
Replicates	60823.2	60925.5	60674.2	60359.0				
480-143996-C-1-C MSD	UNK	4.05	59520	0.39			1.0000	N/A
Replicates	59651.2	59703.0	59536.3	59191.5				
480-143870-B-5-C	UNK	0.00	-15	33.79			1.0000	N/A
Replicates	-6.9	-26.5	-12.0	-13.2				
480-143870-A-6-C	UNK	0.00	34	95.42			1.0000	N/A
Replicates	0.2	44.5	41.3	49.8				
CCV	CCV	2.11	31014	0.77			1.0000	105.58
Replicates	31083.2	31250.2	31042.0	30680.2				
CCB	CCB	0.00	-17	56.01			1.0000	N/A
Replicates	-34.5	-6.3	-24.8	-2.5				
480-143870-A-7-E	UNK	0.00	11	596.90			1.0000	N/A
Replicates	19.1	-29.8	27.9	27.2				
480-143870-B-8-C	UNK	0.00	18	147.57			1.0000	N/A
Replicates	21.0	0.8	29.3	22.5				
480-143870-A-9-C	UNK	0.00	31	18.05			1.0000	N/A
Replicates	36.6	28.2	29.2	30.4				
480-143870-A-10-C	UNK	0.00	15	516.36			1.0000	N/A
Replicates	2.4	9.5	-2.2	48.5				
480-143870-A-11-C	UNK	0.00	33	54.38			1.0000	N/A
Replicates	34.0	49.6	28.1	20.1				

Sample Name		Type	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-144121-C-1-C		UNK	0.00	45	24.82			1.0000	N/A
Replicates	41.6	50.8	52.0	33.8					
480-144121-C-2-E		UNK	0.00	17	247.68			1.0000	N/A
Replicates	12.3	-5.9	28.6	34.8					
480-144121-C-3-C		UNK	0.00	40	38.65			1.0000	N/A
Replicates	35.0	30.8	36.1	56.3					
480-144121-C-4-C		UNK	0.00	9	023.24			1.0000	N/A
Replicates	13.3	3.2	17.4	3.4					
480-144121-C-5-C		UNK	0.00	15	195.26			1.0000	N/A
Replicates	16.1	9.3	26.5	6.5					
CCV		CCV	2.11	31059	0.80			1.0000	105.73
Replicates	31158.3	31288.1	31081.9	30708.9					
CCB		CCB	0.00	29	38.79			1.0000	N/A
Replicates	32.1	28.0	19.3	36.5					
480-144121-C-6-C		UNK	0.00	24	100.71			1.0000	N/A
Replicates	3.3	26.7	34.7	32.9					
480-144121-C-7-C		UNK	0.00	8	566.90			1.0000	N/A
Replicates	12.1	0.6	2.1	19.3					
MB 480-441363/1-E		UNK	0.00	6	200.61			1.0000	N/A
Replicates	10.2	-6.8	14.0	4.8					
LCS 480-441363/2-E		UNK	4.25	62480	0.58			1.0000	N/A
Replicates	62740.7	62772.7	62407.7	61999.7					
480-143733-A-15-C		UNK	0.00	-4	49.13			1.0000	N/A
Replicates	-8.3	-5.7	-9.2	6.0					
480-143432-A-1-C		UNK	0.01	201	2.49			1.0000	N/A
Replicates	197.2	208.1	200.6	199.1					
480-143899-B-1-G		UNK	0.00	21	66.24			1.0000	N/A
Replicates	14.1	23.1	17.4	31.4					
480-143899-B-1-Gsd@5		UNK	0.00	42	28.20			1.0000	N/A
Replicates	36.6	37.6	37.1	54.8					
480-143899-B-1-H MS		UNK	4.17	61274	0.73			1.0000	N/A
Replicates	61551.3	61624.3	61276.0	60644.0					
480-143899-B-1-I MSD		UNK	4.13	60606	0.64			1.0000	N/A
Replicates	60798.2	60945.5	60627.5	60053.8					
CCV		CCV	2.11	31027	0.66			1.0000	105.62
Replicates	31102.6	31228.4	31031.9	30743.4					
CCB		CCB	0.00	25	105.63			1.0000	N/A
Replicates	26.6	8.2	45.0	19.0					

Sample Name		Type		Conc (ug/L)	μAbs	%RSD	Residual	Flags	DF	% Recovery
480-143899-B-2-C		UNK		0.00	0	196.25			1.0000	N/A
Replicates	19.1	-23.7	-4.7	11.0						
480-143899-B-3-C		UNK		0.00	13	011.83			1.0000	N/A
Replicates	58.8	-7.6	7.4	-6.1						
480-143899-B-4-C		UNK		0.00	23	74.82			1.0000	N/A
Replicates	26.3	10.7	20.5	32.7						
480-143899-B-5-C		UNK		0.00	-12	72.00			1.0000	N/A
Replicates	-14.7	7.0	-8.7	-31.2						
CCV		CCV		2.11	31029	0.62			1.0000	105.63
Replicates	31090.4	31217.5	31043.8	30762.5						
CCB		CCB		0.00	11	286.63			1.0000	N/A
Replicates	9.0	7.4	16.6	12.9						
CCVL		CRDL		0.21	3069	0.80			1.0000	104.16
Replicates	3069.4	3088.1	3084.1	3034.1						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.:

Batch Number: 441218

Batch Start Date: 10/24/18 08:29

Batch Analyst: Giglia, Victoria E

Batch Method: 3005A

Batch End Date: 10/24/18 11:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MED_01_si 00120	MED_01_w1 00054	MED_02_w2 00052	MED_03_Ag 00133
MB 480-441218/1		3005A, 6010C		50 mL	50 mL				
LCS 480-441218/2		3005A, 6010C		50 mL	50 mL	0.25 mL	0.25 mL	0.25 mL	0.25 mL
480-143899-C-1	MW-3D	3005A, 6010C	T	50 mL	50 mL				
480-143899-C-1	MW-3D	3005A, 6010C	T	50 mL	50 mL	0.25 mL	0.25 mL	0.25 mL	0.25 mL
MS 480-143899-C-1	MW-3D	3005A, 6010C	T	50 mL	50 mL	0.25 mL	0.25 mL	0.25 mL	0.25 mL
MSD 480-143899-C-2	MW-4	3005A, 6010C	T	50 mL	50 mL				
480-143899-C-3	MW-6	3005A, 6010C	T	50 mL	50 mL				
480-143899-C-4	MW-9	3005A, 6010C	T	50 mL	50 mL				
480-143899-C-5	DUP-1-20181004	3005A, 6010C	T	50 mL	50 mL	0.25 mL	0.25 mL	0.25 mL	0.25 mL
LCS 480-441218/24		3005A, 6010C		50 mL	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MED_04_Sn 00119	MED_05_s 00077		
MB 480-441218/1		3005A, 6010C					
LCS 480-441218/2		3005A, 6010C		0.25 mL	0.25 mL		
480-143899-C-1	MW-3D	3005A, 6010C	T				
480-143899-C-1	MW-3D	3005A, 6010C	T	0.25 mL	0.25 mL		
MS 480-143899-C-1	MW-3D	3005A, 6010C	T	0.25 mL	0.25 mL		
MSD 480-143899-C-2	MW-4	3005A, 6010C	T				
480-143899-C-3	MW-6	3005A, 6010C	T				
480-143899-C-4	MW-9	3005A, 6010C	T				
480-143899-C-5	DUP-1-20181004	3005A, 6010C	T				
LCS 480-441218/24		3005A, 6010C		0.25 mL	0.25 mL		

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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Buffalo

SDG No.:

Job No.: 480-143899-1

Batch Number: 441218

Batch Method: 3005A

Batch Start Date: 10/24/18 08:29

Batch End Date: 10/24/18 11:55

Batch Analyst: Giglia, Victoria E

Batch Notes	
Batch Comment	80612756 (push filters)
Temperature - Corrected - End	98.0 Degrees C
Temperature - Corrected - Start	96.1 Degrees C
Digestion End Time	10/24/2018 11:55
Digestion Start Time	10/24/2018 08:29
Digestion Unit ID	F
Hydrochloric Acid ID	4933522
Nitric Acid ID	4933518
Pipette/Syringe/Dispenser ID	MDL-1
Analyst ID - Spike Analyst	Victoria Giglia
Thermometer ID	170435816
Digestion Tube/Cup ID	1803402
Temperature - Uncorrected - End	96.8 Degrees C
Temperature - Uncorrected - Start	94.9 Degrees C

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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Batch Number: 441697 Batch Start Date: 10/25/18 12:22 Batch Analyst: Giglia, Victoria E

Batch Method: 3005A Batch End Date: 10/25/18 16:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MED_01_si	00120	MED_01_w1	00054	MED_02_w2	00052	MED_03_Ag	00133
MB 480-441363/1-A		3005A, 6010C		50 mL	50 mL								
LCS 480-441363/2-A		3005A, 6010C		50 mL	50 mL	0.25 mL		0.25 mL		0.25 mL		0.25 mL	
480-143899-B-1- A	MW-3D	3005A, 6010C	D	50 mL	50 mL								
480-143899-B-1- B MS	MW-3D	3005A, 6010C	D	50 mL	50 mL	0.25 mL		0.25 mL		0.25 mL		0.25 mL	
480-143899-B-1- C MSD	MW-3D	3005A, 6010C	D	50 mL	50 mL	0.25 mL		0.25 mL		0.25 mL		0.25 mL	
480-143899-B-2- A	MW-4	3005A, 6010C	D	50 mL	50 mL								
480-143899-B-3- A	MW-6	3005A, 6010C	D	50 mL	50 mL								
480-143899-B-4- A	MW-9	3005A, 6010C	D	50 mL	50 mL								
480-143899-B-5- A	DUP-I-2018I004	3005A, 6010C	D	50 mL	50 mL								

Lab Sample ID	Client Sample ID	Method Chain	Basis	MED_04_Sn	00119	MED_05_s	00077		
MB 480-441363/1-A		3005A, 6010C							
LCS 480-441363/2-A		3005A, 6010C		0.25 mL		0.25 mL			
480-143899-B-1- A	MW-3D	3005A, 6010C	D						
480-143899-B-1- B MS	MW-3D	3005A, 6010C	D	0.25 mL		0.25 mL			
480-143899-B-1- C MSD	MW-3D	3005A, 6010C	D	0.25 mL		0.25 mL			
480-143899-B-2- A	MW-4	3005A, 6010C	D						
480-143899-B-3- A	MW-6	3005A, 6010C	D						
480-143899-B-4- A	MW-9	3005A, 6010C	D						
480-143899-B-5- A	DUP-I-2018I004	3005A, 6010C	D						

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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Batch Number: 441697 Batch Start Date: 10/25/18 12:22 Batch Analyst: Giglia, Victoria E

Batch Method: 3005A Batch End Date: 10/25/18 16:10

Batch Notes	
Batch Comment	80612756 (push filters)
Temperature - Corrected - End	94.3 Degrees C
Temperature - Corrected - Start	95.0 Degrees C
Digestion End Time	10/25/2018 16:10
Digestion Start Time	10/25/2018 12:22
Digestion Unit ID	A
Hydrochloric Acid ID	4949970
Nitric Acid ID	4949964
Pipette/Syringe/Dispenser ID	MDL-1
Analyst ID - Spike Analyst	Katie Proulx
Thermometer ID	170435816
Digestion Tube/Cup ID	1804377
Temperature - Uncorrected - End	93.1 Degrees C
Temperature - Uncorrected - Start	93.8 Degrees C

Basis	Basis Description
D	Dissolved

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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica BuffaloJob No.: 480-143899-1SDG No.:

Batch Number: 441391Batch Start Date: 10/24/18 11:50Batch Analyst: Booth, Bryan M

Batch Method: 7470ABatch End Date: 10/24/18 13:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MEH_HG1_WKG 01872	AnalysisComment	
MB 480-441391/1		7470A, 7470A		30 mL	50 mL		KMnO4 x2	
LCS 480-441391/2		7470A, 7470A		30 mL	50 mL	2 mL	KMnO4 x2	
LCSD 480-441391/3		7470A, 7470A		30 mL	50 mL	2 mL	KMnO4 x2	
480-143899-C-1	MW-3D	7470A, 7470A	T	30 mL	50 mL			
480-143899-C-1	MW-3D	7470A, 7470A	T	30 mL	50 mL	2 mL		
MS 480-143899-C-1	MW-3D	7470A, 7470A	T	30 mL	50 mL	2 mL		
MSD 480-143899-C-2	MW-4	7470A, 7470A	T	30 mL	50 mL			
480-143899-C-3	MW-6	7470A, 7470A	T	30 mL	50 mL			
480-143899-C-4	MW-9	7470A, 7470A	T	30 mL	50 mL			
480-143899-C-5	DUP-1-20181004	7470A, 7470A	T	30 mL	50 mL			

Batch Notes	
Batch Comment	1 & 2 Prep 1130 cal: 441425
Temperature - Corrected - Start	94.8 Deg. C
Digestion End Time	1350
Digestion Start Time	1150
Digestion Unit ID	HG-B
Sulfuric Acid ID	4879988
Nitric Acid ID	4862918
Hydroxylamine ID	4859025
Potassium Persulfate ID	4835971
Potassium Permanganate ID	4877670
Pipette/Syringe/Dispenser ID	Hg 5
Analyst ID - Spike Analyst	BB
Thermometer ID	170435802
Digestion Tube/Cup ID	1804377
Temperature - Uncorrected - Start	94.6 Deg. C

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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Buffalo

SDG No.:

Job No.: 480-143899-1

Batch Number: 441391

Batch Start Date: 10/24/18 11:50

Batch Analyst: Booth, Bryan M

Batch Method: 7470A

Batch End Date: 10/24/18 13:50

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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Buffalo

Job No.: 480-143899-1

SDG No.:

Batch Number: 442303

Batch Start Date: 10/29/18 12:15

Batch Analyst: Giglia, Victoria E

Batch Method: 7470A

Batch End Date: 10/29/18 14:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MEH_HG1_WKG 01878	AnalysisComment	
MB 480-441363/1-A		7470A, 7470A		30 mL	50 mL		KMnO4 x2	
LCS 480-441363/2-A		7470A, 7470A		30 mL	50 mL	2 mL	KMnO4 x2	
480-143899-B-1-A	MW-3D	7470A, 7470A	D	30 mL	50 mL			
480-143899-B-1-B MS	MW-3D	7470A, 7470A	D	30 mL	50 mL	2 mL		
480-143899-B-1-C MSD	MW-3D	7470A, 7470A	D	30 mL	50 mL	2 mL		
480-143899-B-2-A	MW-4	7470A, 7470A	D	30 mL	50 mL			
480-143899-B-3-A	MW-6	7470A, 7470A	D	30 mL	50 mL			
480-143899-B-4-A	MW-9	7470A, 7470A	D	30 mL	50 mL			
480-143899-B-5-A	DUP-1-20181004	7470A, 7470A	D	30 mL	50 mL			

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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 480-143899-1

SDG No.: _____

Batch Number: 442303 Batch Start Date: 10/29/18 12:15 Batch Analyst: Giglia, Victoria E

Batch Method: 7470A Batch End Date: 10/29/18 14:15

Batch Notes	
Batch Comment	1 & 2 Prep 1030 Cal: 442362
Temperature - Corrected - Start	93.9 Deg. C
Digestion End Time	1415
Digestion Start Time	1215
Digestion Unit ID	HG-B
Sulfuric Acid ID	4923461
Nitric Acid ID	4915934
Hydroxylamine ID	4923455
Potassium Persulfate ID	4910455
Potassium Permanganate ID	4966808
Pipette/Syringe/Dispenser ID	Hg 8
Analyst ID - Spike Analyst	BB
Sufficient Volume for Batch QC	yes
Thermometer ID	170435802
Digestion Tube/Cup ID	1803402
Temperature - Uncorrected - Start	93.7 Deg. C

Basis	Basis Description
D	Dissolved

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.

Shipping and Receiving Documents

Chain of Custody Record

Client Information Client Contact: Mr. Jeremy Wyckoff Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State: NY Zip: 12065 Phone: 518-250-7300 (Tel) Email: jeremy.wyckoff@arcadis-us.com Project Name: NYSDC-Standard TIOGA CASTINGS Site: TIOGA CASTINGS		Sampler: Jasmine Mullins Lab PM: Stone, Judy L Phone: 646-248-4208 E-Mail: judy.stone@testamericainc.com		Carrier Tracking No(s): COC No: 480-119980-275 Page: Page 1 of 1 Job #: 480-143899 COC	
Due Date Requested: STANDARD TAT Requested (days): STANDARD PO #: 002664030000 WO #: 002664030000 Contract: D004439 Project #: 48006187 SSOW#:		Analysis Requested Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:			
Sample Identification MW-3D MW-3D MS MW-3D MSD MW-4 MW-6 MW-9 DUP-1-20181004		Sample Date 10/16/18 1230 1230 1230 1135 1040 1400 1400		Sample Time 1230 1230 1230 1135 1040 1400 1400	
Sample Type (C=Comp, G=grab) G G G G G G G G		Matrix (W=water, S=solid, D=wastefill, B=soil, A=air) Water Water Water Water Water Water Water Water		Field Filtered Sample (Yes or No) 6010C, 7470A 6010C - TAL Metals ICP (LAB FILTER) 7470A - Mercury (LAB FILTER)	
Total Number of containers 3 3 3 3 3 3 3 3		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months Special Instructions/QC Requirements:			
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by: Relinquished by: Jasmine Mullins Relinquished by: Paul Fadden Relinquished by:			
Date/Time: 10/18/18 1740 Date/Time: 10-19-18 1800 Date/Time:		Date/Time: 10-19-18 0830 Date/Time: 10/20/18 0100 Date/Time:		Company: ARCADIS Company: TA Company: TA Company:	
Custody Seal No.: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 1.4°C #3			

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-143899-1

Login Number: 143899

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
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?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	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	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	143899
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	False	
Chlorine Residual checked.	N/A	

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