EPA SAMPLE NO.

MBHMN6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-01

% Solids: 71.3 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7700	*	01/09/2025	1957
7440-36-0	Antimony	5.0	J*	01/09/2025	1957
7440-38-2	Arsenic	23	*	01/09/2025	1957
7440-39-3	Barium	230	*	01/09/2025	1957
7440-41-7	Beryllium	0.87		01/09/2025	1957
7440-43-9	Cadmium	1.9		01/09/2025	1957
7440-70-2	Calcium	8300	*	01/09/2025	1957
7440-47-3	Chromium	19	*	01/09/2025	1957
7440-48-4	Cobalt	4.7	J	01/09/2025	1957
7440-50-8	Copper	49		01/09/2025	1957
7439-89-6	Iron	22000	*	01/09/2025	1957
7439-92-1	Lead	630		01/09/2025	1957
7439-95-4	Magnesium	3400	*	01/09/2025	1957
7439-96-5	Manganese	1300	*	01/09/2025	1957
7440-02-0	Nickel	25		01/09/2025	1957
7440-09-7	Potassium	910		01/09/2025	1957
7782-49-2	Selenium	11	*	01/09/2025	1957
7440-22-4	Silver	0.87	J*	01/09/2025	1957
7440-23-5	Sodium	550	U	01/09/2025	1957
7440-28-0	Thallium	2.7	U*	01/09/2025	1957
7440-62-2	Vanadium	22		01/09/2025	1957
7440-66-6	Zinc	570	*	01/09/2025	1957

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMN7

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-02

% Solids: 71.3 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7300	*	01/09/2025	2001
7440-36-0	Antimony	4.5	J*	01/09/2025	2001
7440-38-2	Arsenic	21	*	01/09/2025	2001
7440-39-3	Barium	210	*	01/09/2025	2001
7440-41-7	Beryllium	0.93		01/09/2025	2001
7440-43-9	Cadmium	2.7		01/09/2025	2001
7440-70-2	Calcium	12000	*	01/09/2025	2001
7440-47-3	Chromium	17	*	01/09/2025	2001
7440-48-4	Cobalt	5.6	J	01/09/2025	2001
7440-50-8	Copper	53		01/09/2025	2001
7439-89-6	Iron	22000	*	01/09/2025	2001
7439-92-1	Lead	540		01/09/2025	2001
7439-95-4	Magnesium	3600	*	01/09/2025	2001
7439-96-5	Manganese	1200	*	01/09/2025	2001
7440-02-0	Nickel	23		01/09/2025	2001
7440-09-7	Potassium	740		01/09/2025	2001
7782-49-2	Selenium	11	*	01/09/2025	2001
7440-22-4	Silver	0.98	J*	01/09/2025	2001
7440-23-5	Sodium	580	U	01/09/2025	2001
7440-28-0	Thallium	2.9	U*	01/09/2025	2001
7440-62-2	Vanadium	21		01/09/2025	2001
7440-66-6	Zinc	570	*	01/09/2025	2001

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMN8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-03

% Solids: 76.3 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7000	*	01/09/2025	2005
7440-36-0	Antimony	4.4	J*	01/09/2025	2005
7440-38-2	Arsenic	23	*	01/09/2025	2005
7440-39-3	Barium	230	*	01/09/2025	2005
7440-41-7	Beryllium	0.89		01/09/2025	2005
7440-43-9	Cadmium	1.4		01/09/2025	2005
7440-70-2	Calcium	8300	*	01/09/2025	2005
7440-47-3	Chromium	16	*	01/09/2025	2005
7440-48-4	Cobalt	4.5	J	01/09/2025	2005
7440-50-8	Copper	51		01/09/2025	2005
7439-89-6	Iron	21000	*	01/09/2025	2005
7439-92-1	Lead	740		01/09/2025	2005
7439-95-4	Magnesium	2900	*	01/09/2025	2005
7439-96-5	Manganese	1200	*	01/09/2025	2005
7440-02-0	Nickel	20		01/09/2025	2005
7440-09-7	Potassium	720		01/09/2025	2005
7782-49-2	Selenium	11	*	01/09/2025	2005
7440-22-4	Silver	0.96	J*	01/09/2025	2005
7440-23-5	Sodium	540	U	01/09/2025	2005
7440-28-0	Thallium	2.7	U*	01/09/2025	2005
7440-62-2	Vanadium	23		01/09/2025	2005
7440-66-6	Zinc	420	*	01/09/2025	2005

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMN9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-04

% Solids: 79.7 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8100	*	01/09/2025	2008
7440-36-0	Antimony	4.0	J*	01/09/2025	2008
7440-38-2	Arsenic	17	*	01/09/2025	2008
7440-39-3	Barium	190	*	01/09/2025	2008
7440-41-7	Beryllium	0.76		01/09/2025	2008
7440-43-9	Cadmium	1.1		01/09/2025	2008
7440-70-2	Calcium	6200	*	01/09/2025	2008
7440-47-3	Chromium	12	*	01/09/2025	2008
7440-48-4	Cobalt	5.0		01/09/2025	2008
7440-50-8	Copper	23		01/09/2025	2008
7439-89-6	Iron	19000	*	01/09/2025	2008
7439-92-1	Lead	160		01/09/2025	2008
7439-95-4	Magnesium	2800	*	01/09/2025	2008
7439-96-5	Manganese	1600	*	01/09/2025	2008
7440-02-0	Nickel	17		01/09/2025	2008
7440-09-7	Potassium	720		01/09/2025	2008
7782-49-2	Selenium	9.9	*	01/09/2025	2008
7440-22-4	Silver	0.82	J*	01/09/2025	2008
7440-23-5	Sodium	480	U	01/09/2025	2008
7440-28-0	Thallium	2.4	U*	01/09/2025	2008
7440-62-2	Vanadium	18		01/09/2025	2008
7440-66-6	Zinc	140	*	01/09/2025	2008

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMP0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-05

% Solids: 79.2 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8500	*	01/09/2025	1744
7440-36-0	Antimony	3.9	J*	01/09/2025	1744
7440-38-2	Arsenic	14	*	01/09/2025	1744
7440-39-3	Barium	170	*	01/09/2025	1744
7440-41-7	Beryllium	0.78		01/09/2025	1744
7440-43-9	Cadmium	0.89		01/09/2025	1744
7440-70-2	Calcium	6400	*	01/09/2025	1744
7440-47-3	Chromium	12	*	01/09/2025	1744
7440-48-4	Cobalt	5.0		01/09/2025	1744
7440-50-8	Copper	20		01/09/2025	1744
7439-89-6	Iron	19000	*	01/09/2025	1744
7439-92-1	Lead	120		01/09/2025	1744
7439-95-4	Magnesium	2500	*	01/09/2025	1744
7439-96-5	Manganese	1500	*	01/09/2025	1744
7440-02-0	Nickel	16		01/09/2025	1744
7440-09-7	Potassium	530		01/09/2025	1744
7782-49-2	Selenium	10	*	01/09/2025	1744
7440-22-4	Silver	0.66	J*	01/09/2025	1744
7440-23-5	Sodium	440	U	01/09/2025	1744
7440-28-0	Thallium	2.2	U*	01/09/2025	1744
7440-62-2	Vanadium	18		01/09/2025	1744
7440-66-6	Zinc	130	*	01/09/2025	1744

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMP1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-08

% Solids: 84.7 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6200	*	01/09/2025	2012
7440-36-0	Antimony	2.0	J*	01/09/2025	2012
7440-38-2	Arsenic	7.3	*	01/09/2025	2012
7440-39-3	Barium	110	*	01/09/2025	2012
7440-41-7	Beryllium	0.53		01/09/2025	2012
7440-43-9	Cadmium	0.48	J	01/09/2025	2012
7440-70-2	Calcium	55000	*	01/09/2025	2012
7440-47-3	Chromium	9.6	*	01/09/2025	2012
7440-48-4	Cobalt	6.1		01/09/2025	2012
7440-50-8	Copper	14		01/09/2025	2012
7439-89-6	Iron	14000	*	01/09/2025	2012
7439-92-1	Lead	60		01/09/2025	2012
7439-95-4	Magnesium	12000	*	01/09/2025	2012
7439-96-5	Manganese	1000	*	01/09/2025	2012
7440-02-0	Nickel	12		01/09/2025	2012
7440-09-7	Potassium	560		01/09/2025	2012
7782-49-2	Selenium	2.8	J*	01/09/2025	2012
7440-22-4	Silver	0.49	J*	01/09/2025	2012
7440-23-5	Sodium	520	U	01/09/2025	2012
7440-28-0	Thallium	2.6	U*	01/09/2025	2012
7440-62-2	Vanadium	14		01/09/2025	2012
7440-66-6	Zinc	77	*	01/09/2025	2012

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMP2

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-09

% Solids: 89.1 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	3700	*	01/09/2025	2016
7440-36-0	Antimony	1.0	J*	01/09/2025	2016
7440-38-2	Arsenic	3.2	*	01/09/2025	2016
7440-39-3	Barium	44	*	01/09/2025	2016
7440-41-7	Beryllium	0.31	J	01/09/2025	2016
7440-43-9	Cadmium	0.32	J	01/09/2025	2016
7440-70-2	Calcium	120000	D*	01/10/2025	1615
7440-47-3	Chromium	6.9	*	01/09/2025	2016
7440-48-4	Cobalt	5.8		01/09/2025	2016
7440-50-8	Copper	16		01/09/2025	2016
7439-89-6	Iron	8900	*	01/09/2025	2016
7439-92-1	Lead	28		01/09/2025	2016
7439-95-4	Magnesium	18000	*	01/09/2025	2016
7439-96-5	Manganese	700	*	01/09/2025	2016
7440-02-0	Nickel	10		01/09/2025	2016
7440-09-7	Potassium	680		01/09/2025	2016
7782-49-2	Selenium	3.1	U*	01/09/2025	2016
7440-22-4	Silver	0.25	J*	01/09/2025	2016
7440-23-5	Sodium	130	J	01/09/2025	2016
7440-28-0	Thallium	1.9	J*	01/09/2025	2016
7440-62-2	Vanadium	9.4		01/09/2025	2016
7440-66-6	Zinc	53	*	01/09/2025	2016

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMP3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-10

% Solids: 70.4 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8300	*	01/09/2025	2020
7440-36-0	Antimony	2.8	J*	01/09/2025	2020
7440-38-2	Arsenic	7.3	*	01/09/2025	2020
7440-39-3	Barium	79	*	01/09/2025	2020
7440-41-7	Beryllium	0.55		01/09/2025	2020
7440-43-9	Cadmium	0.30	J	01/09/2025	2020
7440-70-2	Calcium	3200	*	01/09/2025	2020
7440-47-3	Chromium	13	*	01/09/2025	2020
7440-48-4	Cobalt	2.2	J	01/09/2025	2020
7440-50-8	Copper	15		01/09/2025	2020
7439-89-6	Iron	14000	*	01/09/2025	2020
7439-92-1	Lead	29		01/09/2025	2020
7439-95-4	Magnesium	2200	*	01/09/2025	2020
7439-96-5	Manganese	450	*	01/09/2025	2020
7440-02-0	Nickel	17		01/09/2025	2020
7440-09-7	Potassium	460	J	01/09/2025	2020
7782-49-2	Selenium	7.3	*	01/09/2025	2020
7440-22-4	Silver	0.41	J*	01/09/2025	2020
7440-23-5	Sodium	490	U	01/09/2025	2020
7440-28-0	Thallium	2.4	U*	01/09/2025	2020
7440-62-2	Vanadium	17		01/09/2025	2020
7440-66-6	Zinc	40	*	01/09/2025	2020

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMP4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-11

% Solids: 75.8 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8500	*	01/09/2025	2024
7440-36-0	Antimony	2.8	J*	01/09/2025	2024
7440-38-2	Arsenic	6.4	*	01/09/2025	2024
7440-39-3	Barium	75	*	01/09/2025	2024
7440-41-7	Beryllium	0.57		01/09/2025	2024
7440-43-9	Cadmium	0.29	J	01/09/2025	2024
7440-70-2	Calcium	3000	*	01/09/2025	2024
7440-47-3	Chromium	14	*	01/09/2025	2024
7440-48-4	Cobalt	1.9	J	01/09/2025	2024
7440-50-8	Copper	14		01/09/2025	2024
7439-89-6	Iron	14000	*	01/09/2025	2024
7439-92-1	Lead	29		01/09/2025	2024
7439-95-4	Magnesium	2300	*	01/09/2025	2024
7439-96-5	Manganese	430	*	01/09/2025	2024
7440-02-0	Nickel	18		01/09/2025	2024
7440-09-7	Potassium	430	J	01/09/2025	2024
7782-49-2	Selenium	7.2	*	01/09/2025	2024
7440-22-4	Silver	0.27	J*	01/09/2025	2024
7440-23-5	Sodium	500	U	01/09/2025	2024
7440-28-0	Thallium	2.5	U*	01/09/2025	2024
7440-62-2	Vanadium	17		01/09/2025	2024
7440-66-6	Zinc	42	*	01/09/2025	2024

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMP5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-12

% Solids: 81.9 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	12000	*	01/09/2025	2027
7440-36-0	Antimony	4.8	J*	01/09/2025	2027
7440-38-2	Arsenic	8.1	*	01/09/2025	2027
7440-39-3	Barium	110	*	01/09/2025	2027
7440-41-7	Beryllium	0.46	J	01/09/2025	2027
7440-43-9	Cadmium	0.42	J	01/09/2025	2027
7440-70-2	Calcium	2500	*	01/09/2025	2027
7440-47-3	Chromium	16	*	01/09/2025	2027
7440-48-4	Cobalt	16		01/09/2025	2027
7440-50-8	Copper	8.6		01/09/2025	2027
7439-89-6	Iron	24000	*	01/09/2025	2027
7439-92-1	Lead	29		01/09/2025	2027
7439-95-4	Magnesium	2300	*	01/09/2025	2027
7439-96-5	Manganese	7300	D*	01/10/2025	1626
7440-02-0	Nickel	16		01/09/2025	2027
7440-09-7	Potassium	410	J	01/09/2025	2027
7782-49-2	Selenium	18	*	01/09/2025	2027
7440-22-4	Silver	1.3	*	01/09/2025	2027
7440-23-5	Sodium	550	U	01/09/2025	2027
7440-28-0	Thallium	2.7	U*	01/09/2025	2027
7440-62-2	Vanadium	23		01/09/2025	2027
7440-66-6	Zinc	43	*	01/09/2025	2027

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMW0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-13

% Solids: 76.1 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6000	*	01/09/2025	2031
7440-36-0	Antimony	5.0	J*	01/09/2025	2031
7440-38-2	Arsenic	16	*	01/09/2025	2031
7440-39-3	Barium	64	*	01/09/2025	2031
7440-41-7	Beryllium	0.60		01/09/2025	2031
7440-43-9	Cadmium	0.46		01/09/2025	2031
7440-70-2	Calcium	4100	*	01/09/2025	2031
7440-47-3	Chromium	9.9	*	01/09/2025	2031
7440-48-4	Cobalt	1.4	J	01/09/2025	2031
7440-50-8	Copper	26		01/09/2025	2031
7439-89-6	Iron	21000	*	01/09/2025	2031
7439-92-1	Lead	91		01/09/2025	2031
7439-95-4	Magnesium	1900	*	01/09/2025	2031
7439-96-5	Manganese	890	*	01/09/2025	2031
7440-02-0	Nickel	17		01/09/2025	2031
7440-09-7	Potassium	680		01/09/2025	2031
7782-49-2	Selenium	11	*	01/09/2025	2031
7440-22-4	Silver	0.55	J*	01/09/2025	2031
7440-23-5	Sodium	460	U	01/09/2025	2031
7440-28-0	Thallium	2.3	U*	01/09/2025	2031
7440-62-2	Vanadium	16		01/09/2025	2031
7440-66-6	Zinc	54	*	01/09/2025	2031

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMW1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-14

% Solids: 80 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6600	*	01/09/2025	2035
7440-36-0	Antimony	3.7	J*	01/09/2025	2035
7440-38-2	Arsenic	20	*	01/09/2025	2035
7440-39-3	Barium	80	*	01/09/2025	2035
7440-41-7	Beryllium	0.61		01/09/2025	2035
7440-43-9	Cadmium	0.52	J	01/09/2025	2035
7440-70-2	Calcium	4200	*	01/09/2025	2035
7440-47-3	Chromium	9.9	*	01/09/2025	2035
7440-48-4	Cobalt	5.4		01/09/2025	2035
7440-50-8	Copper	27		01/09/2025	2035
7439-89-6	Iron	17000	*	01/09/2025	2035
7439-92-1	Lead	94		01/09/2025	2035
7439-95-4	Magnesium	2300	*	01/09/2025	2035
7439-96-5	Manganese	1400	*	01/09/2025	2035
7440-02-0	Nickel	14		01/09/2025	2035
7440-09-7	Potassium	770		01/09/2025	2035
7782-49-2	Selenium	9.3	*	01/09/2025	2035
7440-22-4	Silver	0.56	J*	01/09/2025	2035
7440-23-5	Sodium	540	U	01/09/2025	2035
7440-28-0	Thallium	2.7	U*	01/09/2025	2035
7440-62-2	Vanadium	17		01/09/2025	2035
7440-66-6	Zinc	59	*	01/09/2025	2035

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMW2

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-15

% Solids: 82 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7600	*	01/09/2025	2039
7440-36-0	Antimony	4.4	J*	01/09/2025	2039
7440-38-2	Arsenic	16	*	01/09/2025	2039
7440-39-3	Barium	63	*	01/09/2025	2039
7440-41-7	Beryllium	0.62		01/09/2025	2039
7440-43-9	Cadmium	0.43	J	01/09/2025	2039
7440-70-2	Calcium	3600	*	01/09/2025	2039
7440-47-3	Chromium	10	*	01/09/2025	2039
7440-48-4	Cobalt	4.8	J	01/09/2025	2039
7440-50-8	Copper	24		01/09/2025	2039
7439-89-6	Iron	21000	*	01/09/2025	2039
7439-92-1	Lead	39		01/09/2025	2039
7439-95-4	Magnesium	2600	*	01/09/2025	2039
7439-96-5	Manganese	1700	*	01/09/2025	2039
7440-02-0	Nickel	14		01/09/2025	2039
7440-09-7	Potassium	650		01/09/2025	2039
7782-49-2	Selenium	12	*	01/09/2025	2039
7440-22-4	Silver	0.76	J*	01/09/2025	2039
7440-23-5	Sodium	540	U	01/09/2025	2039
7440-28-0	Thallium	2.7	U*	01/09/2025	2039
7440-62-2	Vanadium	17		01/09/2025	2039
7440-66-6	Zinc	51	*	01/09/2025	2039

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMW3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-16

% Solids: 82.6 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6000	*	01/13/2025	1713
7440-36-0	Antimony	2.4	J*	01/13/2025	1713
7440-38-2	Arsenic	14	*	01/13/2025	1713
7440-39-3	Barium	55	*	01/13/2025	1713
7440-41-7	Beryllium	0.74		01/13/2025	1713
7440-43-9	Cadmium	0.62		01/13/2025	1713
7440-70-2	Calcium	34000	*	01/13/2025	1713
7440-47-3	Chromium	9.4	*	01/13/2025	1713
7440-48-4	Cobalt	7.4		01/13/2025	1713
7440-50-8	Copper	21		01/13/2025	1713
7439-89-6	Iron	17000	*	01/13/2025	1713
7439-92-1	Lead	32		01/13/2025	1713
7439-95-4	Magnesium	2400	*	01/13/2025	1713
7439-96-5	Manganese	1800	*	01/13/2025	1713
7440-02-0	Nickel	15		01/13/2025	1713
7440-09-7	Potassium	500	U	01/13/2025	1713
7782-49-2	Selenium	9.5	*	01/13/2025	1713
7440-22-4	Silver	0.99	U*	01/13/2025	1713
7440-23-5	Sodium	100	J	01/13/2025	1713
7440-28-0	Thallium	2.5	U*	01/13/2025	1713
7440-62-2	Vanadium	5.5		01/13/2025	1713
7440-66-6	Zinc	51	*	01/13/2025	1713

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMW4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-17

% Solids: 89.7 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	2700	*	01/09/2025	2046
7440-36-0	Antimony	1.1	J*	01/09/2025	2046
7440-38-2	Arsenic	9.1	*	01/09/2025	2046
7440-39-3	Barium	30	*	01/09/2025	2046
7440-41-7	Beryllium	0.29	J	01/09/2025	2046
7440-43-9	Cadmium	0.31	J	01/09/2025	2046
7440-70-2	Calcium	230000	D*	01/10/2025	1645
7440-47-3	Chromium	4.3	*	01/09/2025	2046
7440-48-4	Cobalt	8.0		01/09/2025	2046
7440-50-8	Copper	23		01/09/2025	2046
7439-89-6	Iron	13000	*	01/09/2025	2046
7439-92-1	Lead	22		01/09/2025	2046
7439-95-4	Magnesium	10000	*	01/09/2025	2046
7439-96-5	Manganese	1200	*	01/09/2025	2046
7440-02-0	Nickel	12		01/09/2025	2046
7440-09-7	Potassium	340	J	01/09/2025	2046
7782-49-2	Selenium	1.9	J*	01/09/2025	2046
7440-22-4	Silver	0.46	J*	01/09/2025	2046
7440-23-5	Sodium	180	J	01/09/2025	2046
7440-28-0	Thallium	1.4	J*	01/09/2025	2046
7440-62-2	Vanadium	7.4		01/09/2025	2046
7440-66-6	Zinc	62	*	01/09/2025	2046

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMW8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-18

% Solids: 68.2 Date Received: 12/07/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8800	*	01/09/2025	2050
7440-36-0	Antimony	3.0	J*	01/09/2025	2050
7440-38-2	Arsenic	6.4	*	01/09/2025	2050
7440-39-3	Barium	80	*	01/09/2025	2050
7440-41-7	Beryllium	0.55		01/09/2025	2050
7440-43-9	Cadmium	0.26	J	01/09/2025	2050
7440-70-2	Calcium	3400	*	01/09/2025	2050
7440-47-3	Chromium	12	*	01/09/2025	2050
7440-48-4	Cobalt	1.7	J	01/09/2025	2050
7440-50-8	Copper	15		01/09/2025	2050
7439-89-6	Iron	14000	*	01/09/2025	2050
7439-92-1	Lead	30		01/09/2025	2050
7439-95-4	Magnesium	2300	*	01/09/2025	2050
7439-96-5	Manganese	470	*	01/09/2025	2050
7440-02-0	Nickel	17		01/09/2025	2050
7440-09-7	Potassium	490	J	01/09/2025	2050
7782-49-2	Selenium	7.8	*	01/09/2025	2050
7440-22-4	Silver	0.33	J*	01/09/2025	2050
7440-23-5	Sodium	510	U	01/09/2025	2050
7440-28-0	Thallium	2.6	U*	01/09/2025	2050
7440-62-2	Vanadium	18		01/09/2025	2050
7440-66-6	Zinc	43	*	01/09/2025	2050

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHMW9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHMN6

Matrix: SOIL Lab Sample ID: P5198-19

% Solids: 83.1 Date Received: 12/07/2024

Analytical Method: ICP_AES

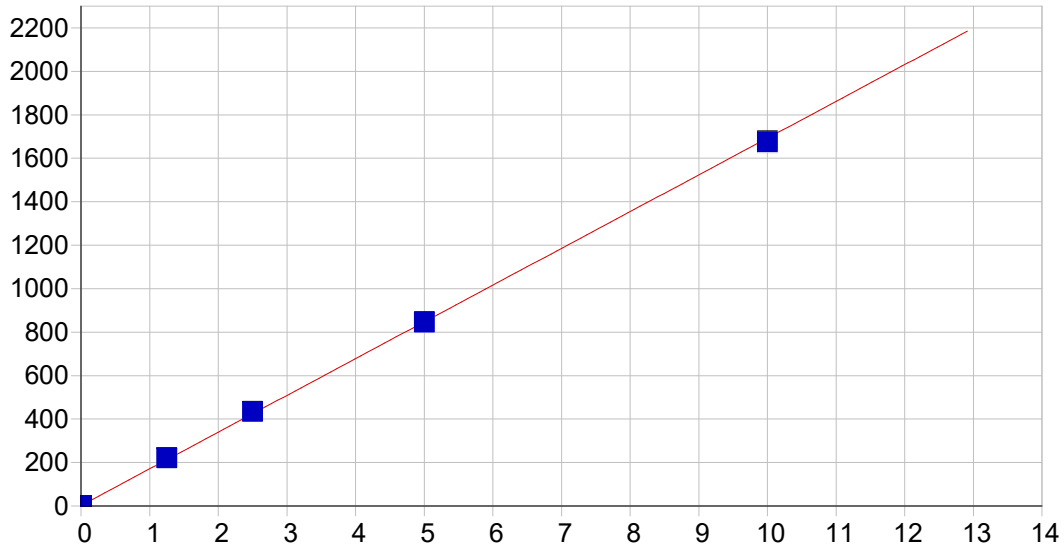
Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8000	*	01/09/2025	2054
7440-36-0	Antimony	3.6	J*	01/09/2025	2054
7440-38-2	Arsenic	13	*	01/09/2025	2054
7440-39-3	Barium	110	*	01/09/2025	2054
7440-41-7	Beryllium	0.66		01/09/2025	2054
7440-43-9	Cadmium	0.52		01/09/2025	2054
7440-70-2	Calcium	3300	*	01/09/2025	2054
7440-47-3	Chromium	12	*	01/09/2025	2054
7440-48-4	Cobalt	3.4	J	01/09/2025	2054
7440-50-8	Copper	33		01/09/2025	2054
7439-89-6	Iron	16000	*	01/09/2025	2054
7439-92-1	Lead	140		01/09/2025	2054
7439-95-4	Magnesium	2000	*	01/09/2025	2054
7439-96-5	Manganese	590	*	01/09/2025	2054
7440-02-0	Nickel	13		01/09/2025	2054
7440-09-7	Potassium	820		01/09/2025	2054
7782-49-2	Selenium	9.4	*	01/09/2025	2054
7440-22-4	Silver	0.56	J*	01/09/2025	2054
7440-23-5	Sodium	430	U	01/09/2025	2054
7440-28-0	Thallium	2.2	U*	01/09/2025	2054
7440-62-2	Vanadium	19		01/09/2025	2054
7440-66-6	Zinc	99	*	01/09/2025	2054

NOTE: Hardness (total) is reported in mg/L

Comments:

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



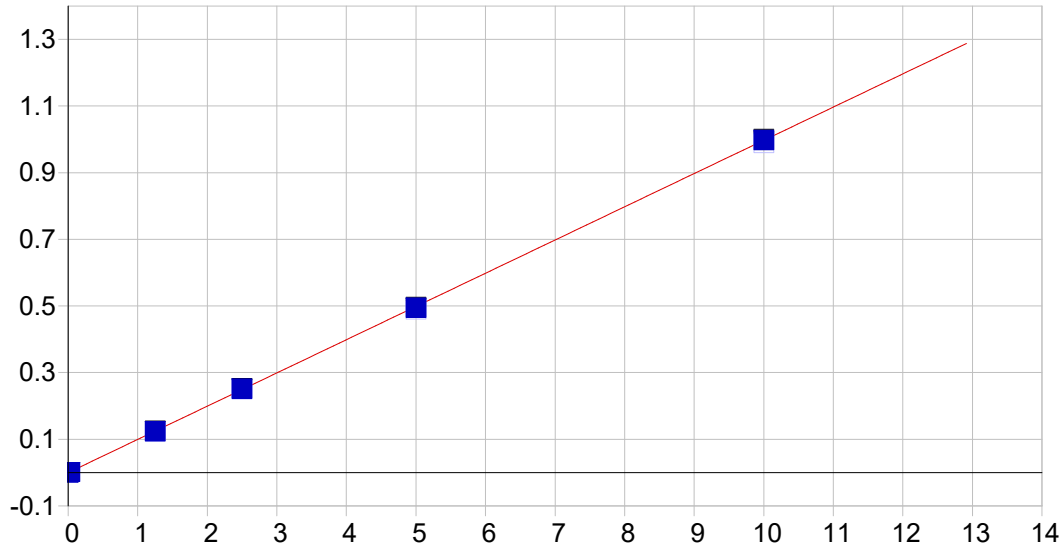
As 189.042 {478}

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A0 (Offset):	1.601487	Re-Slope:	1.000000
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999868	Status:	OK.
Std Error of Est:	0.045813		
Predicted MDL:	0.006390		
Predicted MQL:	0.021299		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	1.6009	.351	1
S1	.01000	.01300	.003	30.0	3.7973	.422	1
S2	1.2500	1.2968	.047	3.74	220.06	.992	1
S3	2.5000	2.5564	.056	2.25	432.24	1.76	1
S4	5.0000	4.9921	-.008	-.157	842.48	2.60	1
S5	10.000	9.9017	-.098	-.983	1669.4	4.75	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



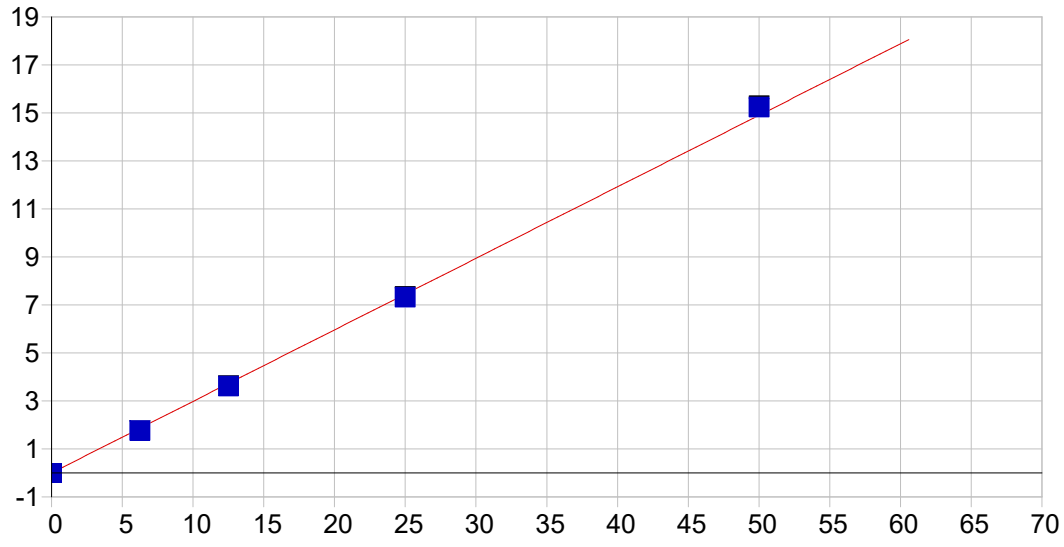
Tl 190.856 {477}

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A0 (Offset):	-0.000480	Re-Slope:	1.000000
A1 (Gain):	0.099736	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.000016		
Predicted MDL:	0.003148		
Predicted MQL:	0.010495		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00048	.000	1
S1	.02500	.02451	-.000	-1.95	.00188	.000	1
S2	1.2500	1.2491	-.001	-.073	.12303	.001	1
S3	2.5000	2.5304	.030	1.22	.24975	.001	1
S4	5.0000	4.9598	-.040	-.803	.48991	.002	1
S5	10.000	10.011	.011	.111	.98943	.003	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



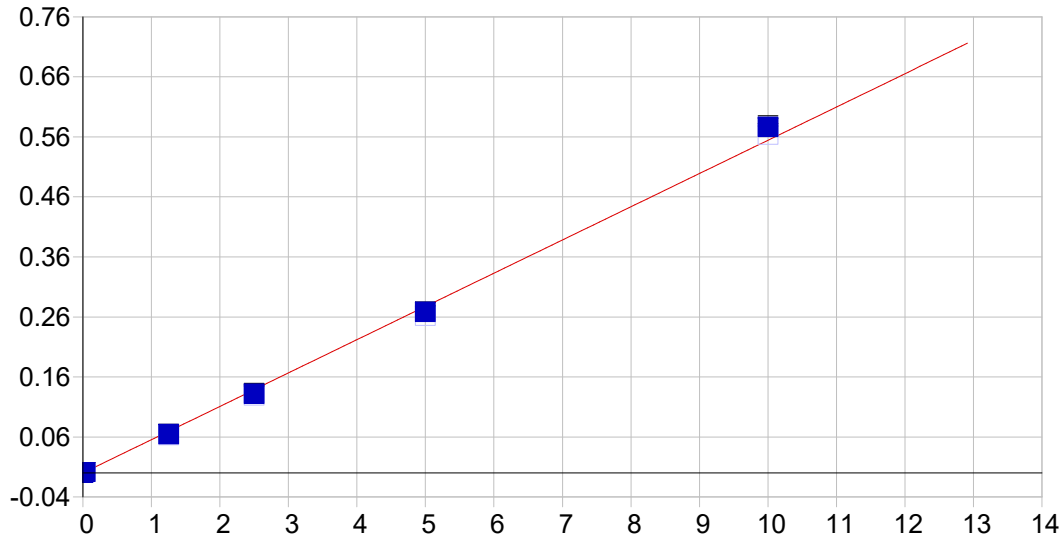
Pb 220.353 {453}

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A0 (Offset):	0.000208	Re-Slope:	1.000000
A1 (Gain):	0.298006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999654	Status:	OK.
Std Error of Est:	0.000293		
Predicted MDL:	0.002817		
Predicted MQL:	0.009391		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00021	.001	1
S1	.01000	.00576	-.004	-42.4	.00191	.001	1
S2	6.2500	5.9030	-.347	-5.55	1.7569	.005	1
S3	12.500	12.144	-.356	-2.85	3.6143	.008	1
S4	25.000	24.567	-.433	-1.73	7.3115	.024	1
S5	50.000	51.140	1.14	2.28	15.221	.052	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



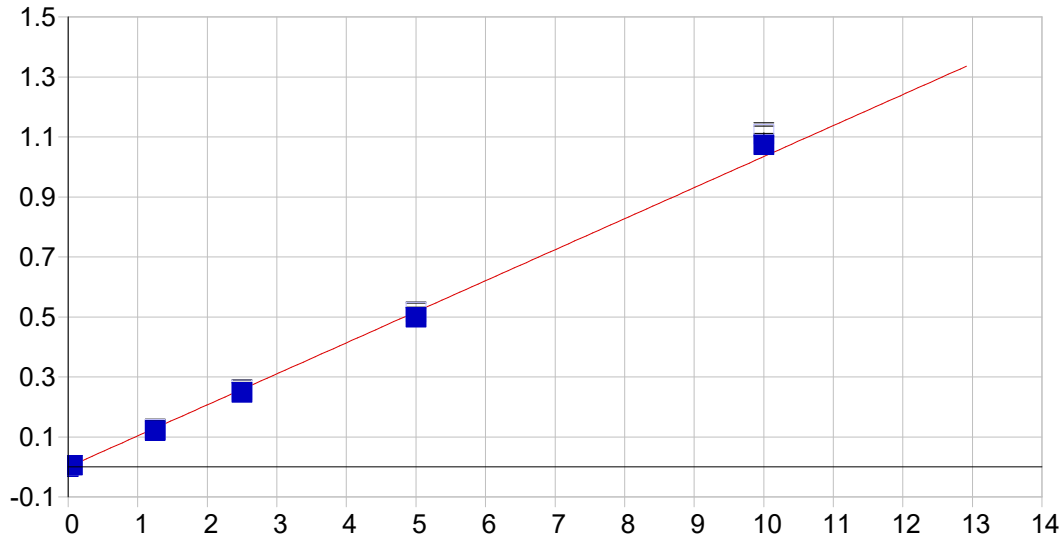
Se 196.090 {472}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

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A1 (Gain):	0.055441	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998950	Status:	OK.
Std Error of Est:	0.000078		
Predicted MDL:	0.007563		
Predicted MQL:	0.025209		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00012	.000	1
S1	.03500	.02321	-.012	-33.7	.00140	.000	1
S2	1.2500	1.1583	-.092	-7.34	.06277	.000	1
S3	2.5000	2.3775	-.122	-4.90	.12881	.001	1
S4	5.0000	4.8329	-.167	-3.34	.26182	.000	1
S5	10.000	10.393	.393	3.93	.56386	.002	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



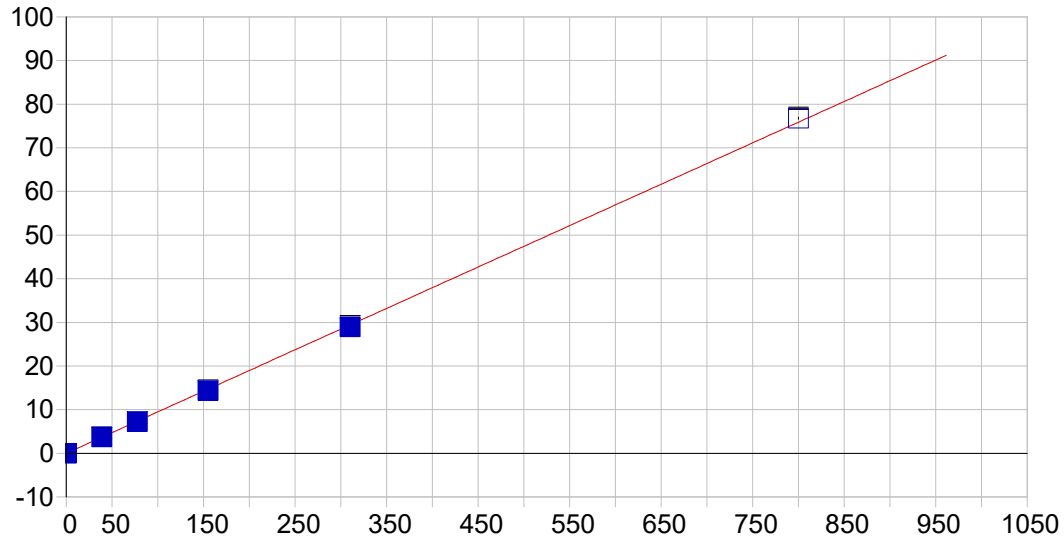
Sb 206.833 {463}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000078	Re-Slope:	1.000000
A1 (Gain):	0.103436	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999213	Status:	OK.
Std Error of Est:	0.000175		
Predicted MDL:	0.005395		
Predicted MQL:	0.017983		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00008	.000	1
S1	.06000	.05460	-.005	-9.00	.00557	.001	1
S2	1.2500	1.1677	-.082	-6.58	.12503	.001	1
S3	2.5000	2.3928	-.107	-4.29	.25606	.001	1
S4	5.0000	4.8157	-.184	-3.69	.51533	.002	1
S5	10.000	10.379	.379	3.79	1.1081	.005	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



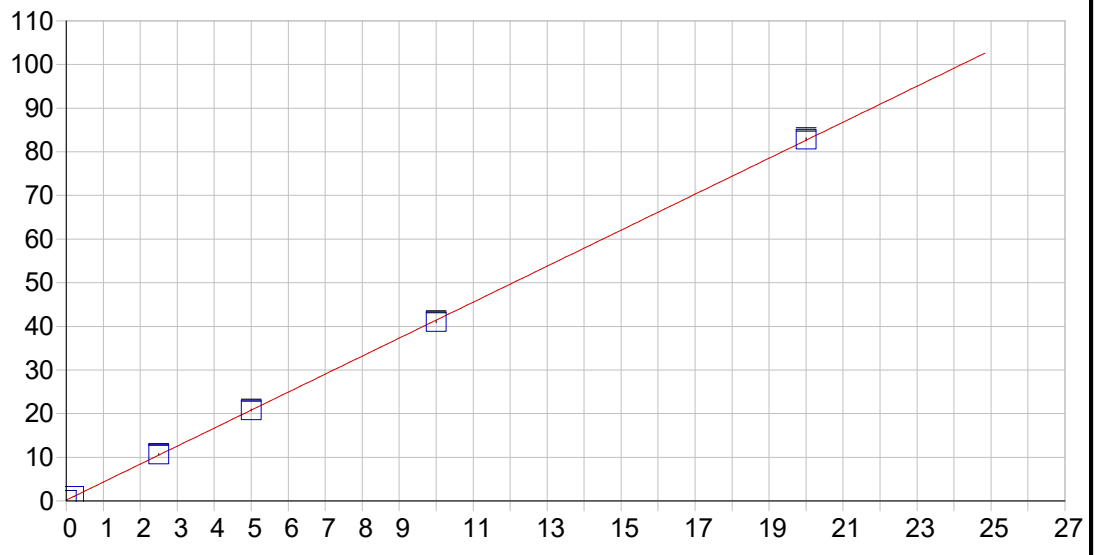
Al 396.152 { 85}

Date of Fit:	01/09/2025 15:52:00	Type of Fit:	Linear	Weighting:	1/Conc

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A1 (Gain):	0.094849	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999894	Status:	OK.
Std Error of Est:	0.000857		
Predicted MDL:	0.052972		
Predicted MQL:	0.176572		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00010	.003	1
S1	.20000	.22479	.025	12.4	.02145	.003	1
S2	38.750	38.850	.100	.258	3.6890	.038	1
S3	77.500	76.343	-1.16	-1.49	7.2491	.020	1
S4	155.00	151.61	-3.39	-2.19	14.396	.097	1
S5	310.00	304.91	-5.09	-1.64	28.952	.325	1
S6	800.00	809.53	9.53	1.19	76.783	.258	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



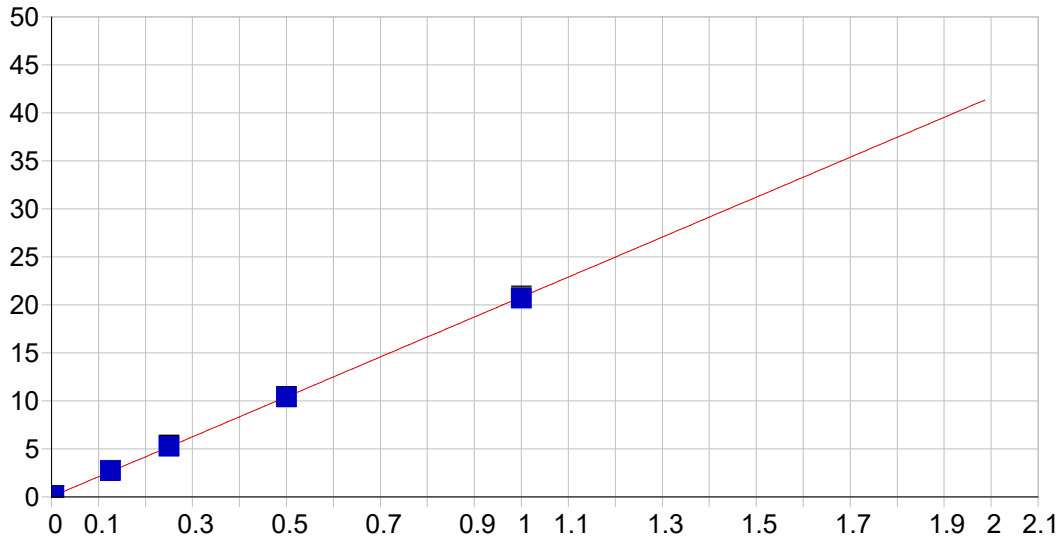
Ba 493.409 { 68}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.187426	Re-Slope:	1.000000
A1 (Gain):	4.123733	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999977	Status:	OK.
Std Error of Est:	0.002966		
Predicted MDL:	0.002978		
Predicted MQL:	0.009926		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.18742	.016	1
S1	.20000	.19888	-.001	-.562	1.0075	.010	1
S2	2.5000	2.5428	.043	1.71	10.673	.153	1
S3	5.0000	4.9978	-.002	-.043	20.797	.217	1
S4	10.000	9.9080	-.092	-.920	41.045	.217	1
S5	20.000	20.053	.053	.263	82.879	.383	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



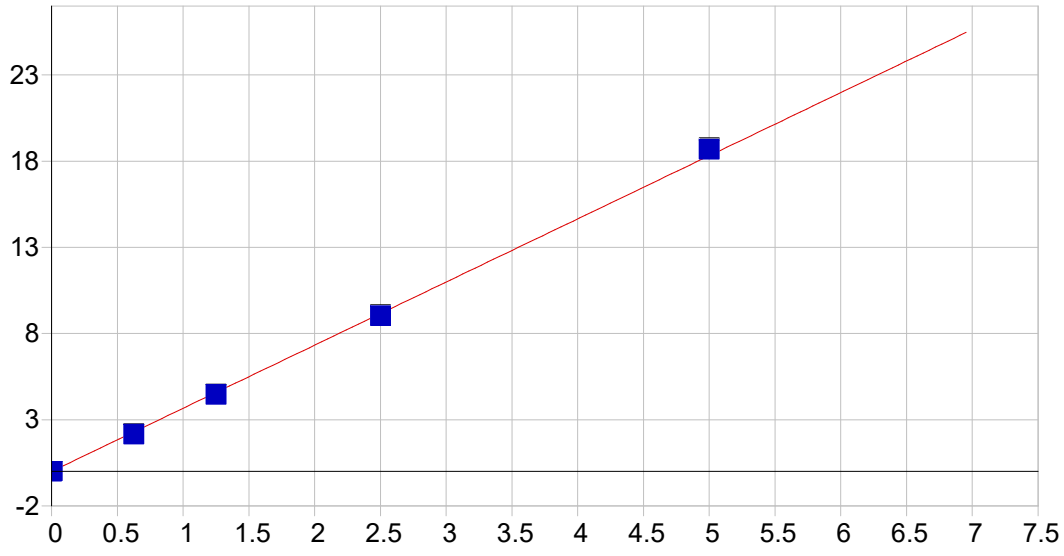
Be 234.861 {144}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.022686	Re-Slope:	1.000000
A1 (Gain):	20.798972	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000934		
Predicted MDL:	0.000182		
Predicted MQL:	0.000605		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.02269	.006	1
S1	.00500	.00475	-.000	-5.07	.12131	.004	1
S2	.12500	.12992	.005	3.94	2.7130	.026	1
S3	.25000	.25235	.002	.938	5.2474	.112	1
S4	.50000	.49927	-.001	-.146	10.359	.053	1
S5	1.0000	.99372	-.006	-.628	20.596	.243	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



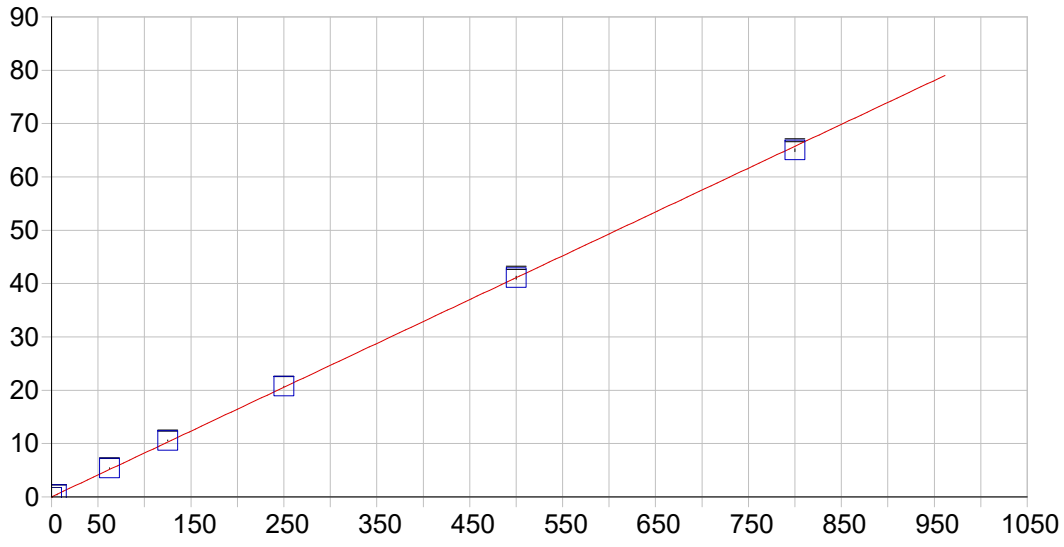
Cd 214.438 {457}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000213	Re-Slope:	1.000000
A1 (Gain):	3.663316	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999711	Status:	OK.
Std Error of Est:	0.000740		
Predicted MDL:	0.000118		
Predicted MQL:	0.000395		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00022	.000	1
S1	.00500	.00421	-.001	-15.8	.01570	.000	1
S2	.62500	.58937	-.036	-5.70	2.1628	.007	1
S3	1.2500	1.2199	-.030	-2.41	4.4762	.011	1
S4	2.5000	2.4647	-.035	-1.41	9.0434	.032	1
S5	5.0000	5.1018	.102	2.04	18.718	.056	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



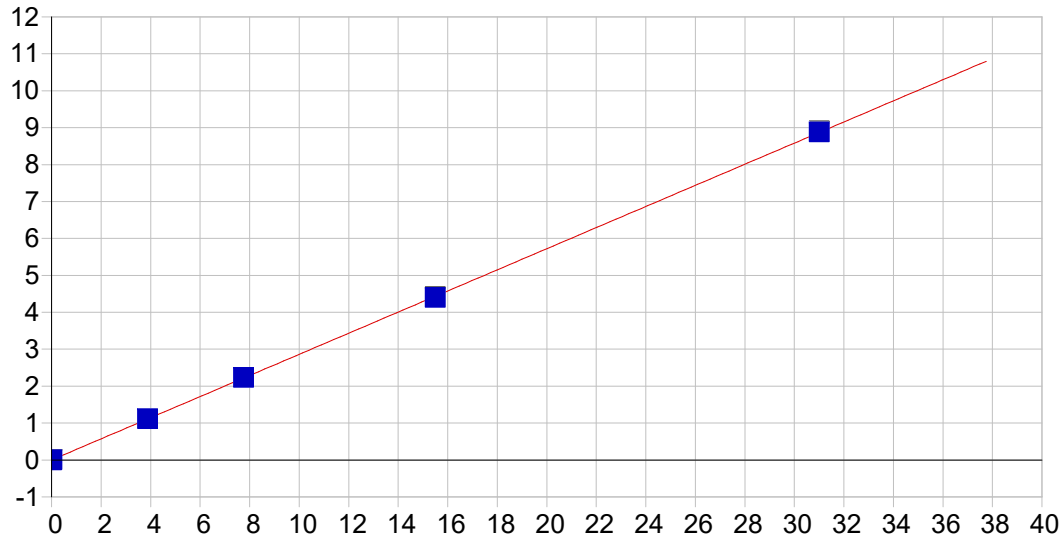
Ca 373.690 { 90}

Date of Fit:	01/09/2025 15:52:00	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.014095	Re-Slope:	1.000000
A1 (Gain):	0.082168	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.004131		
Predicted MDL:	0.051127		
Predicted MQL:	0.170422		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00056	-.001	.000	.01405	.003	1
S1	5.0000	5.1939	.194	3.88	.44086	.002	1
S2	62.500	65.425	2.93	4.68	5.3899	.063	1
S3	125.00	128.55	3.55	2.84	10.577	.090	1
S4	250.00	252.30	2.30	.918	20.745	.038	1
S5	500.00	499.75	-.248	-.050	41.078	.298	1
S6	800.00	791.28	-8.72	-1.09	65.032	.278	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



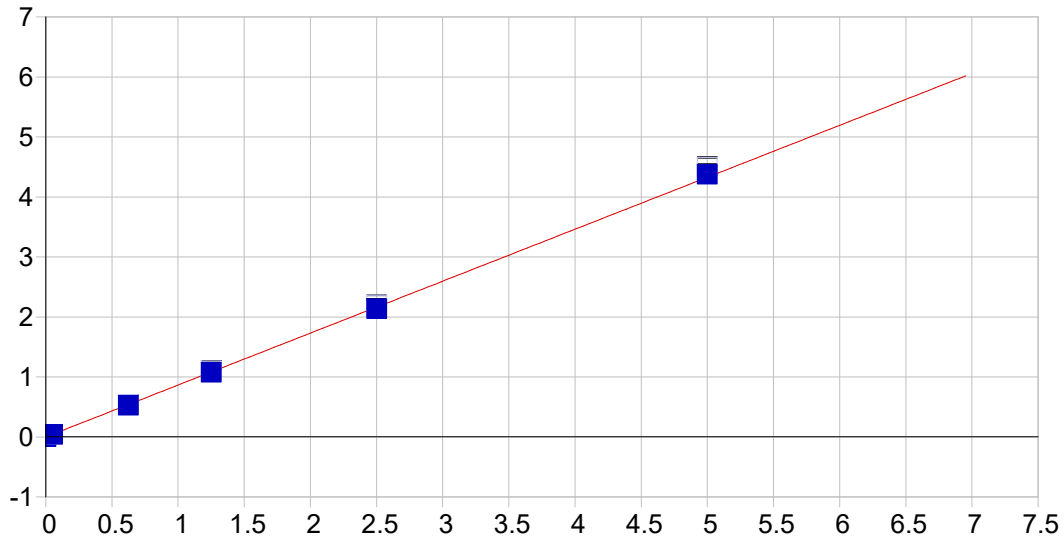
Cr 267.716 {126}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.286064	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	0.001151		
Predicted MQL:	0.003835		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00000	.000	1
S1	.01000	.00878	-.001	-12.2	.00252	.000	1
S2	3.8750	3.9088	.034	.873	1.1190	.004	1
S3	7.7500	7.8088	.059	.758	2.2355	.001	1
S4	15.500	15.372	-.128	-.825	4.4009	.012	1
S5	31.000	31.036	.036	.118	8.8853	.024	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



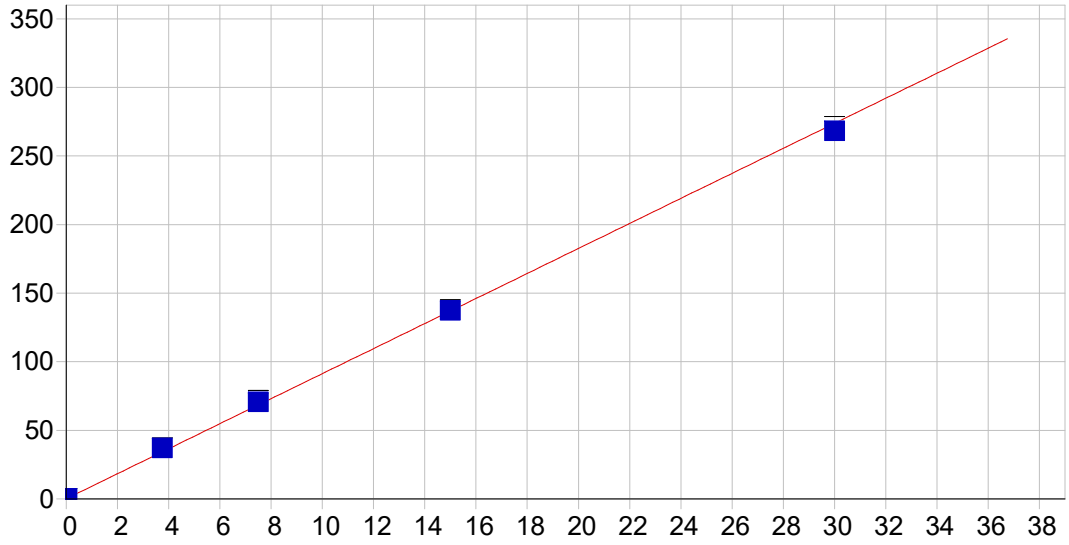
Co 228.616 {448}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001141	Re-Slope:	1.000000
A1 (Gain):	0.865670	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000291		
Predicted MDL:	0.000538		
Predicted MQL:	0.001793		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00114	.000	1
S1	.05000	.04735	-.003	-5.30	.04002	.000	1
S2	.62500	.61065	-.014	-2.30	.54221	.001	1
S3	1.2500	1.2423	-.008	-.617	1.1037	.002	1
S4	2.5000	2.4693	-.031	-1.23	2.1954	.007	1
S5	5.0000	5.0553	.055	1.11	4.4930	.011	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



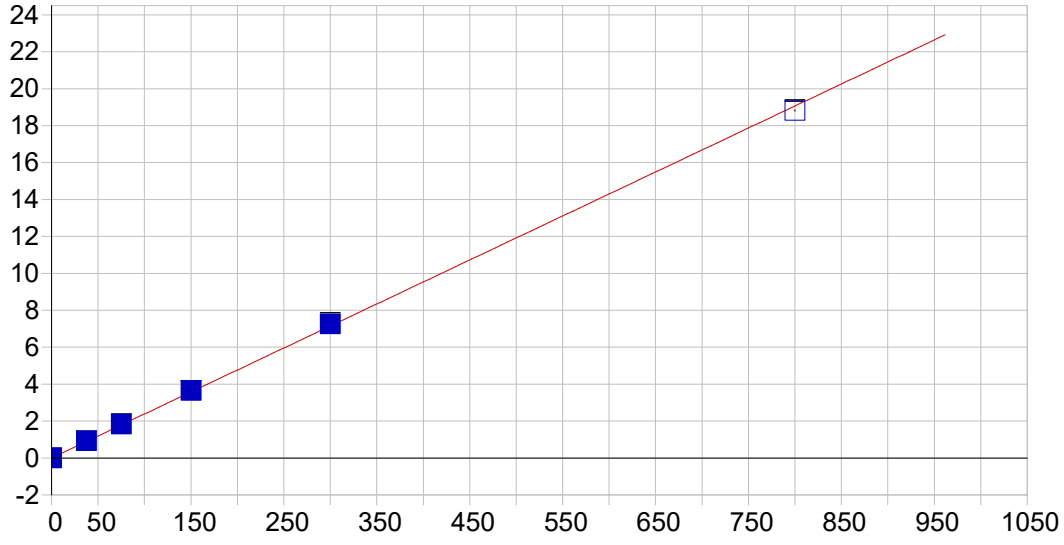
Cu 324.754 {104}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.093578	Re-Slope:	1.000000
A1 (Gain):	9.125342	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999592	Status:	OK.
Std Error of Est:	0.011976		
Predicted MDL:	0.000899		
Predicted MQL:	0.002998		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.09352	.013	1
S1	.02500	.02854	.004	14.2	.35369	.018	1
S2	3.7500	4.0582	.308	8.22	37.123	.284	1
S3	7.5000	7.7454	.245	3.27	70.765	1.01	1
S4	15.000	15.043	.043	.284	137.35	.619	1
S5	30.000	29.400	-.600	-2.00	268.35	3.26	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



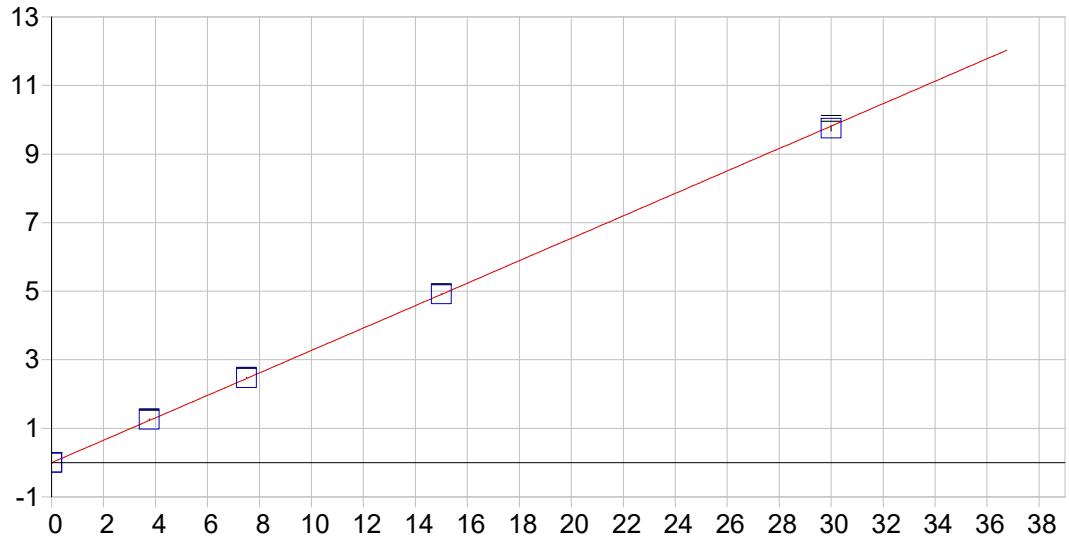
Fe 259.837 {130}

Date of Fit:	01/09/2025 15:52:00	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000686	Re-Slope:	1.000000
A1 (Gain):	0.023830	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999878	Status:	OK.
Std Error of Est:	0.000163		
Predicted MDL:	0.053955		
Predicted MQL:	0.179850		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00069	.001	1
S1	.10000	.08504	-.015	-15.0	.00271	.002	1
S2	37.500	38.739	1.24	3.31	.92404	.012	1
S3	75.000	76.874	1.87	2.50	1.8330	.008	1
S4	150.00	152.99	2.99	1.99	3.6472	.003	1
S5	300.00	304.07	4.07	1.36	7.2483	.076	1
S6	800.00	789.84	-10.2	-1.27	18.823	.048	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



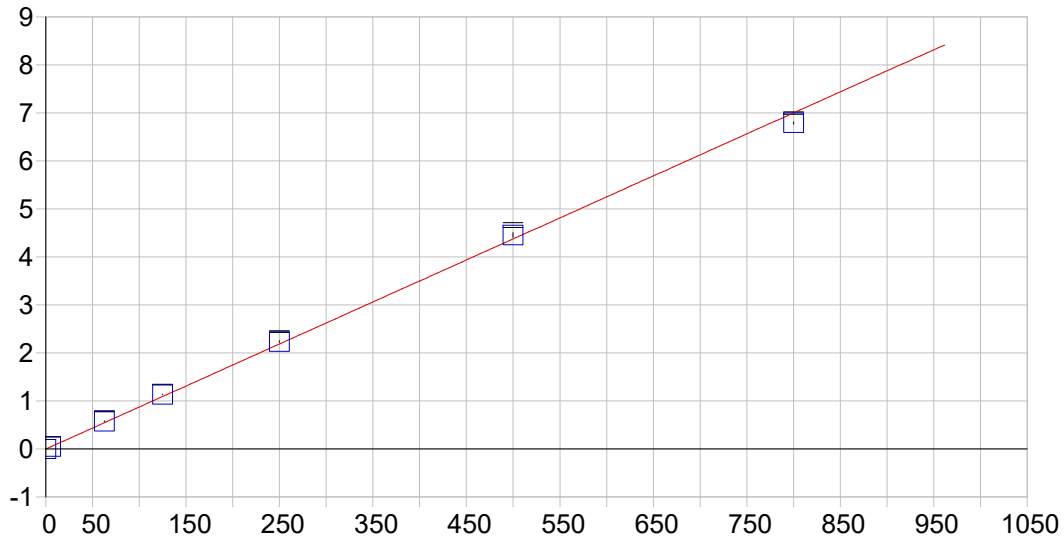
Mn 257.610 {131}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001680	Re-Slope:	1.000000
A1 (Gain):	0.327219	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000102		
Predicted MDL:	0.003714		
Predicted MQL:	0.012379		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00168	.002	1
S1	.01500	.01632	.001	8.83	.00366	.001	1
S2	3.7500	3.8465	.097	2.57	1.2570	.021	1
S3	7.5000	7.5652	.065	.869	2.4738	.015	1
S4	15.000	15.022	.022	.149	4.9139	.016	1
S5	30.000	29.815	-.185	-.618	9.7542	.085	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



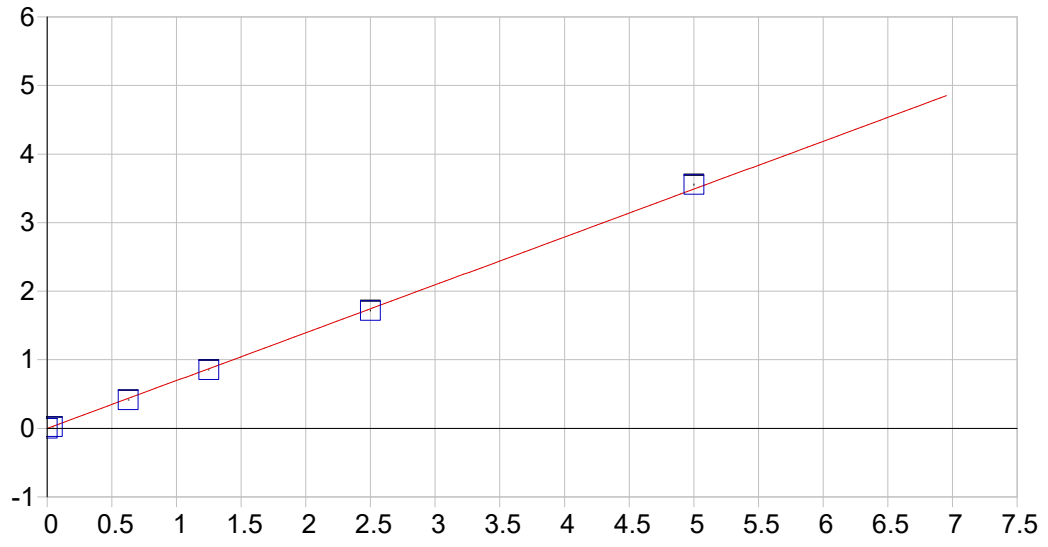
Mg 279.079 {121}

Date of Fit:	01/09/2025 15:52:00	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002794	Re-Slope:	1.000000
A1 (Gain):	0.008755	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999570	Status:	OK.
Std Error of Est:	0.000897		
Predicted MDL:	0.171566		
Predicted MQL:	0.571888		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00112	-.001	.000	-.00280	.001	1
S1	5.0000	5.5756	.576	11.5	.04602	.001	1
S2	62.500	66.176	3.68	5.88	.57656	.011	1
S3	125.00	129.95	4.95	3.96	1.1349	.008	1
S4	250.00	255.74	5.74	2.30	2.2362	.014	1
S5	500.00	509.11	9.11	1.82	4.4544	.050	1
S6	800.00	775.94	-24.1	-3.01	6.7904	.024	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



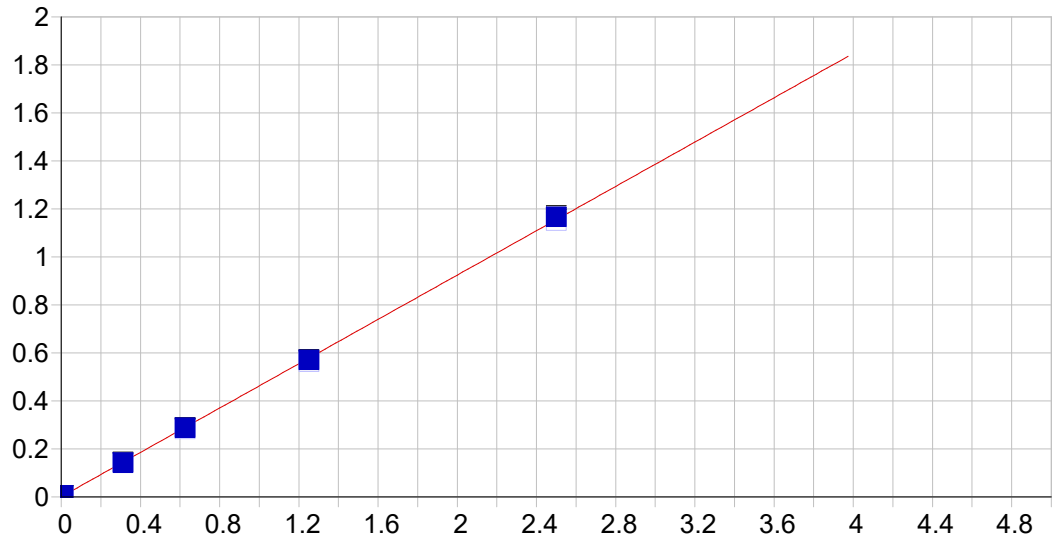
Ni 231.604 {446}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001474	Re-Slope:	1.000000
A1 (Gain):	0.697881	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999738	Status:	OK.
Std Error of Est:	0.000379		
Predicted MDL:	0.000893		
Predicted MQL:	0.002976		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00147	.000	1
S1	.04000	.03573	-.004	-10.7	.02346	.000	1
S2	.62500	.59359	-.031	-5.03	.41278	.001	1
S3	1.2500	1.2247	-.025	-2.03	.85319	.003	1
S4	2.5000	2.4643	-.036	-1.43	1.7183	.006	1
S5	5.0000	5.0967	.097	1.93	3.5554	.008	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



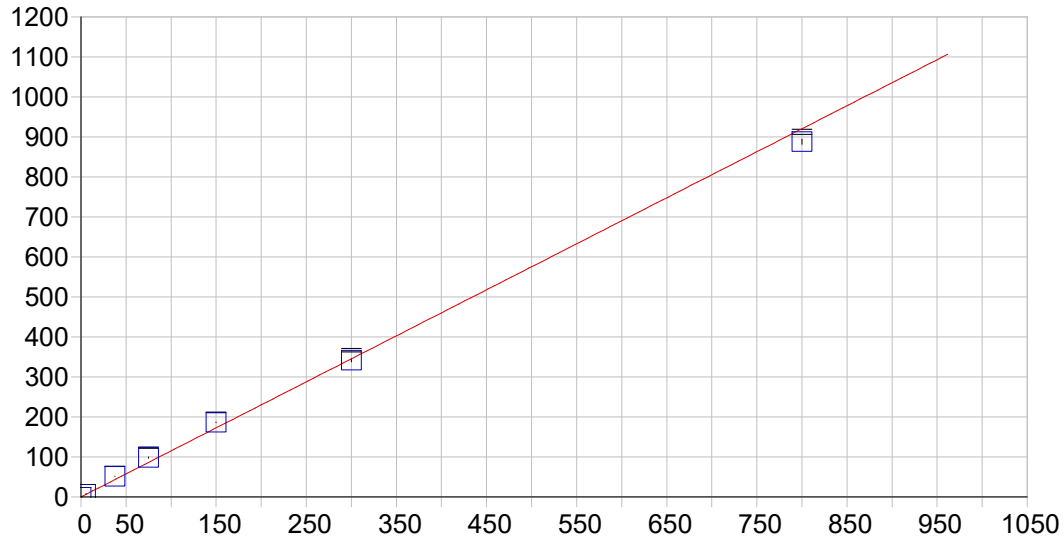
Ag 328.068 {103}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000921	Re-Slope:	1.000000
A1 (Gain):	0.461754	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.000045		
Predicted MDL:	0.001398		
Predicted MQL:	0.004660		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00092	.000	1
S1	.01000	.00919	-.001	-8.09	.00516	.000	1
S2	.31250	.30839	-.004	-1.32	.14124	.002	1
S3	.62500	.62050	-.004	-.720	.28328	.001	1
S4	1.2500	1.2337	-.016	-1.30	.56228	.002	1
S5	2.5000	2.5257	.026	1.03	1.1506	.005	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



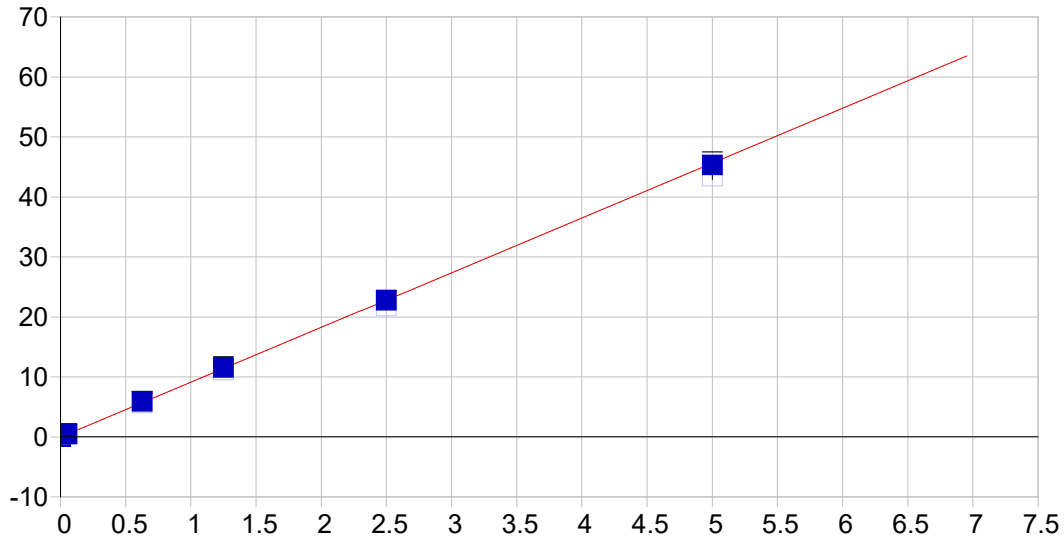
Na 818.326 { 41}

Date of Fit:	01/09/2025 15:52:00	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.062961	Re-Slope:	1.000000
A1 (Gain):	1.150446	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998150	Status:	OK.
Std Error of Est:	0.216636		
Predicted MDL:	0.022000		
Predicted MQL:	0.073335		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00300	-.003	.000	.05951	.017	1
S1	5.0000	6.1676	1.17	23.4	7.1585	.141	1
S2	37.500	44.618	7.12	19.0	51.393	.433	1
S3	75.000	85.568	10.6	14.1	98.504	1.39	1
S4	150.00	161.95	12.0	7.97	186.38	.523	1
S5	300.00	297.17	-2.83	-.942	341.95	4.10	1
S6	800.00	772.02	-28.0	-3.50	888.23	6.54	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



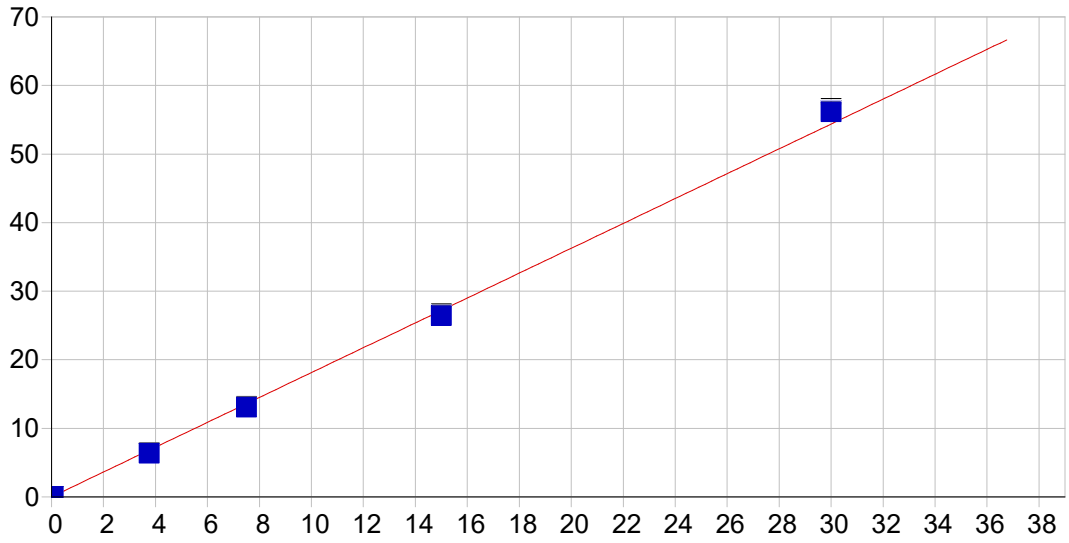
V 292.402 {115}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.032569	Re-Slope:	1.000000
A1 (Gain):	9.133842	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999884	Status:	OK.
Std Error of Est:	0.003546		
Predicted MDL:	0.000829		
Predicted MQL:	0.002762		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.03264	.009	1
S1	.05000	.05552	.006	11.0	.47330	.008	1
S2	.62500	.64732	.022	3.57	5.6512	.040	1
S3	1.2500	1.2688	.019	1.50	11.099	.171	1
S4	2.5000	2.4914	-.009	-.344	21.808	.070	1
S5	5.0000	4.9618	-.038	-.765	43.457	.567	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



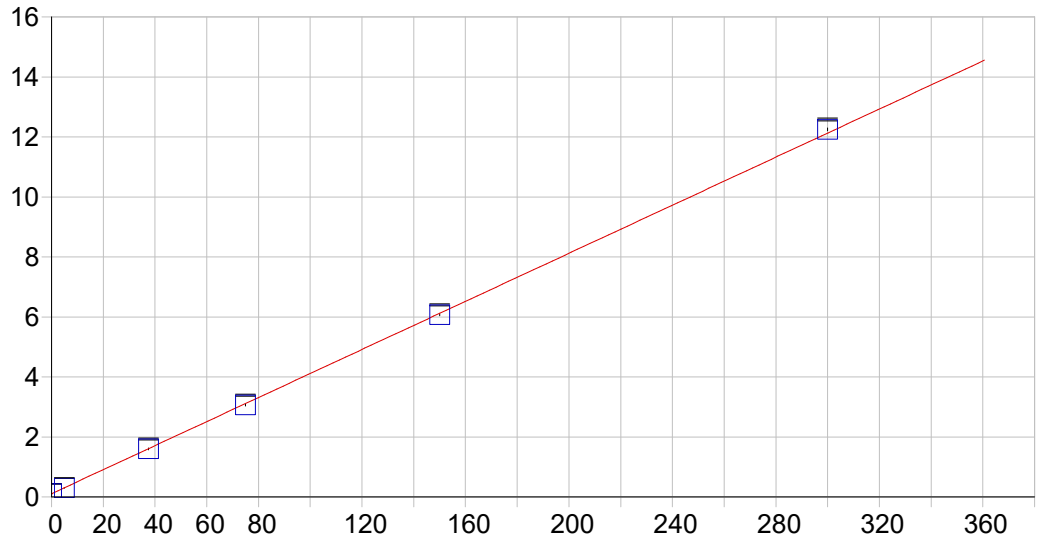
Zn 213.856 {158}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002260	Re-Slope:	1.000000
A1 (Gain):	1.812826	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999385	Status:	OK.
Std Error of Est:	0.004549		
Predicted MDL:	0.000877		
Predicted MQL:	0.002923		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00228	.000	1
S1	.06000	.05723	-.003	-4.61	.10635	.002	1
S2	3.7500	3.5075	-.243	-6.47	6.3939	.013	1
S3	7.5000	7.2045	-.296	-3.94	13.129	.069	1
S4	15.000	14.580	-.420	-2.80	26.566	.129	1
S5	30.000	30.961	.961	3.20	56.396	.255	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



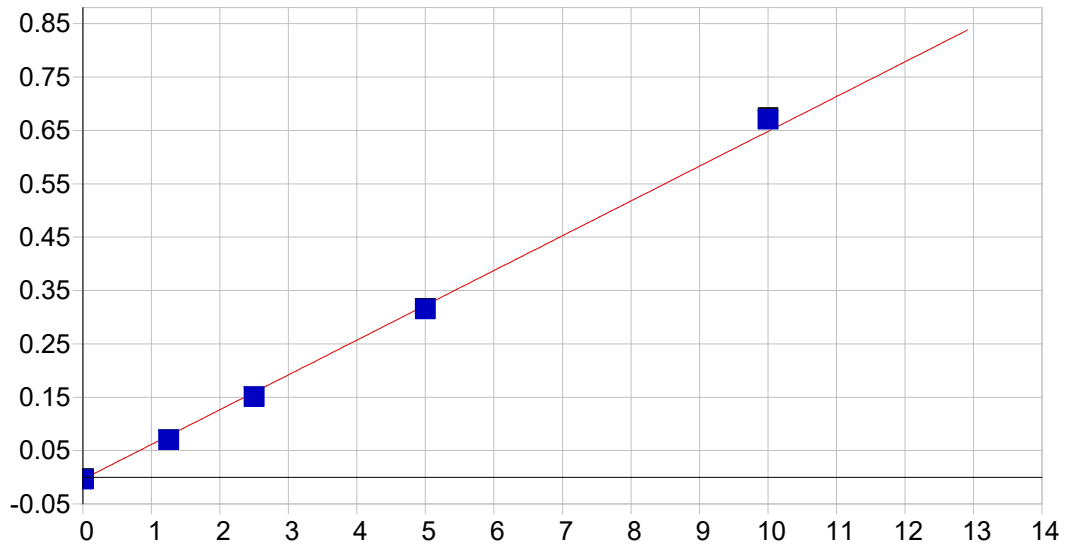
K 769.896 { 44}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.107172	Re-Slope:	1.000000
A1 (Gain):	0.040069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000945		
Predicted MDL:	0.240187		
Predicted MQL:	0.800622		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00035	.000	.000	.10719	.010	1
S1	5.0000	4.7618	-.238	-4.76	.29797	.014	1
S2	37.500	37.257	-.243	-.647	1.6000	.030	1
S3	75.000	73.786	-1.21	-1.62	3.0637	.029	1
S4	150.00	148.69	-1.31	-.876	6.0648	.032	1
S5	300.00	303.01	3.01	1.00	12.248	.046	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



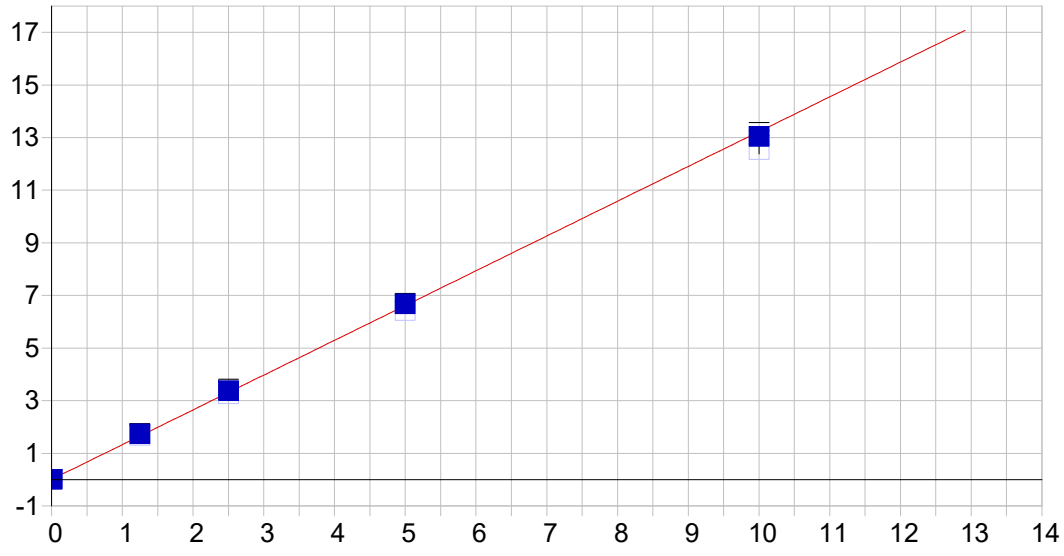
P 177.495 {490}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003792	Re-Slope:	1.000000
A1 (Gain):	0.065196	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999121	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.003702		
Predicted MQL:	0.012342		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00379	.000	1
S1	.01000	.00935	-.001	-6.49	-.00318	.000	1
S2	1.2500	1.1271	-.123	-9.83	.06957	.001	1
S3	2.5000	2.3757	-.124	-4.97	.15086	.001	1
S4	5.0000	4.8953	-.105	-2.09	.31489	.001	1
S5	10.000	10.353	.353	3.53	.67020	.002	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



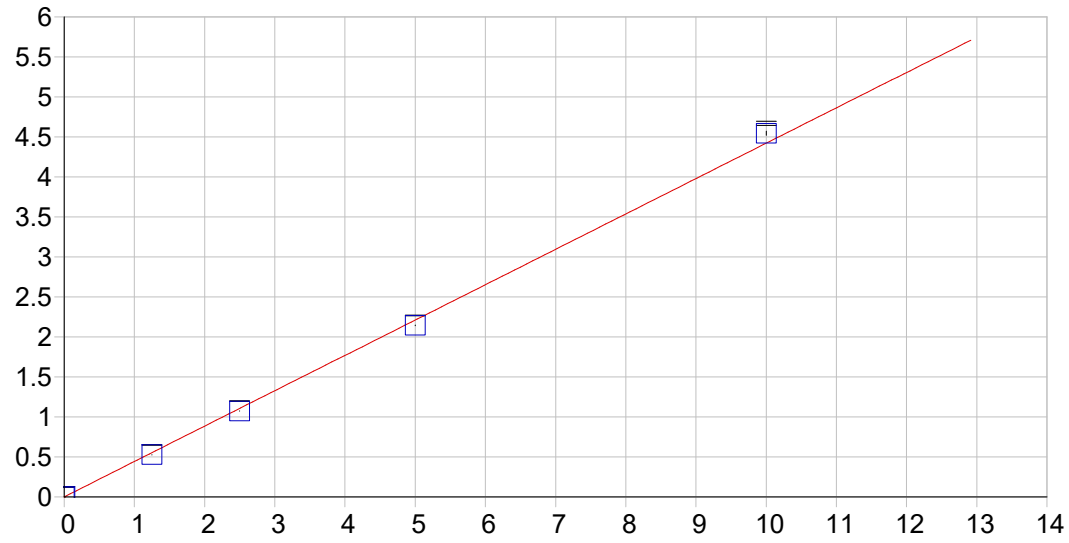
B 249.678 {135}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005845	Re-Slope:	1.000000
A1 (Gain):	1.322003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999583	Status:	OK.
Std Error of Est:	0.000616		
Predicted MDL:	0.003508		
Predicted MQL:	0.011694		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00586	.002	1
S1	.01000	.00093	-.009	-90.7	.00701	.008	1
S2	1.2500	1.3089	.059	4.71	1.6734	.011	1
S3	2.5000	2.5524	.052	2.10	3.2545	.055	1
S4	5.0000	5.0413	.041	.826	6.4191	.029	1
S5	10.000	9.8567	-.143	-1.43	12.534	.158	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



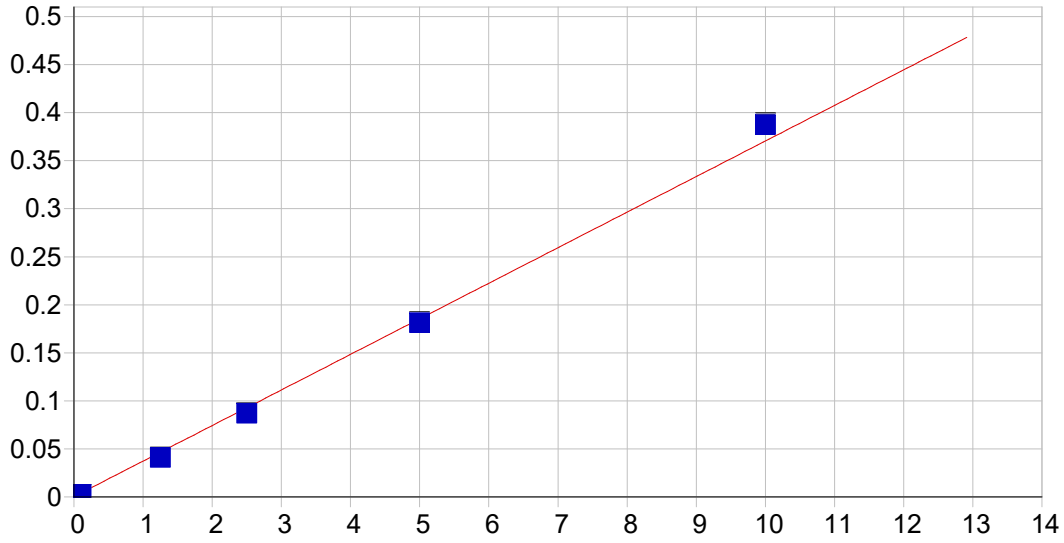
Mo 202.030 {467}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000761	Re-Slope:	1.000000
A1 (Gain):	0.442021	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999535	Status:	OK.
Std Error of Est:	0.000226		
Predicted MDL:	0.001012		
Predicted MQL:	0.003373		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00076	.000	1
S1	.01000	.00924	-.001	-7.58	.00485	.000	1
S2	1.2500	1.1890	-.061	-4.88	.52633	.001	1
S3	2.5000	2.4274	-.073	-2.90	1.0737	.002	1
S4	5.0000	4.8522	-.148	-2.96	2.1455	.004	1
S5	10.000	10.282	.282	2.82	4.5457	.025	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



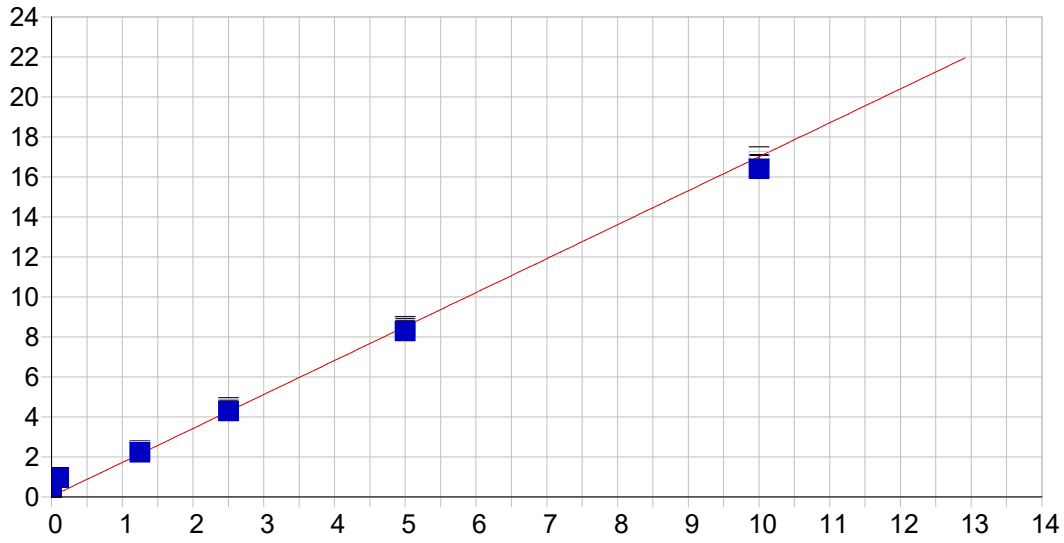
S 182.034 {485}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000273	Re-Slope:	1.000000
A1 (Gain):	0.037023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998435	Status:	OK.
Std Error of Est:	0.000111		
Predicted MDL:	0.005909		
Predicted MQL:	0.019696		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00004	.000	.000	.00027	.000	1
S1	.10000	.07264	-.027	-27.4	.00296	.000	1
S2	1.2500	1.0964	-.154	-12.3	.04101	.000	1
S3	2.5000	2.3438	-.156	-6.25	.08734	.000	1
S4	5.0000	4.8832	-.117	-2.34	.18166	.001	1
S5	10.000	10.454	.454	4.54	.38850	.001	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



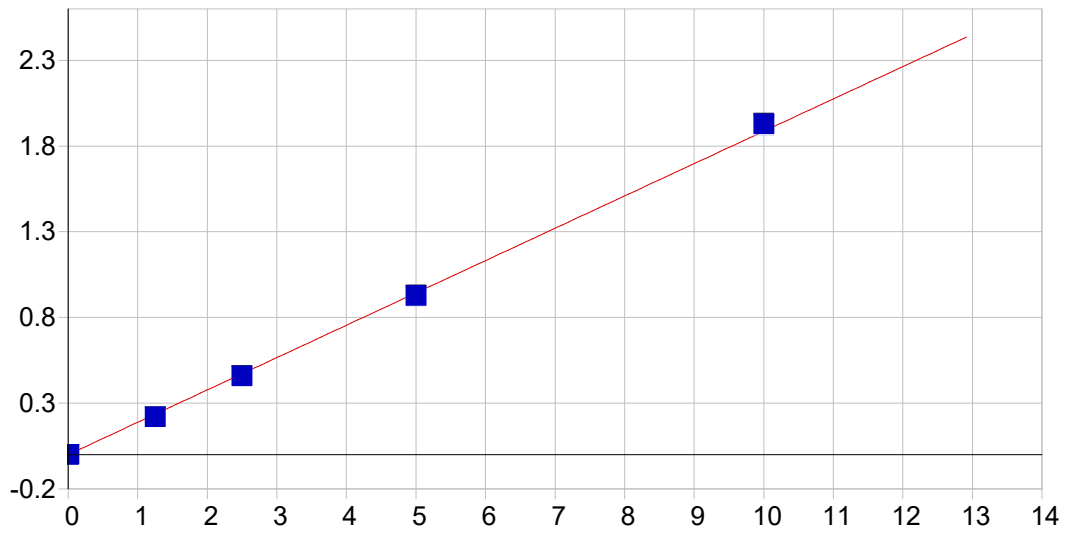
Si 251.611 {134}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.027521	Re-Slope:	1.000000
A1 (Gain):	1.697910	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.954167	Status:	OK.
Std Error of Est:	0.028941		
Predicted MDL:	0.002803		
Predicted MQL:	0.009342		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00044	-.000	.000	.02678	.003	1
S1	.10000	.53808	.438	438.	.94354	.023	1
S2	1.2500	1.2972	.047	3.78	2.2782	.024	1
S3	2.5000	2.5081	.008	.325	4.3825	.074	1
S4	5.0000	4.8645	-.136	-2.71	8.4797	.043	1
S5	10.000	9.6458	-.354	-3.54	16.791	.220	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



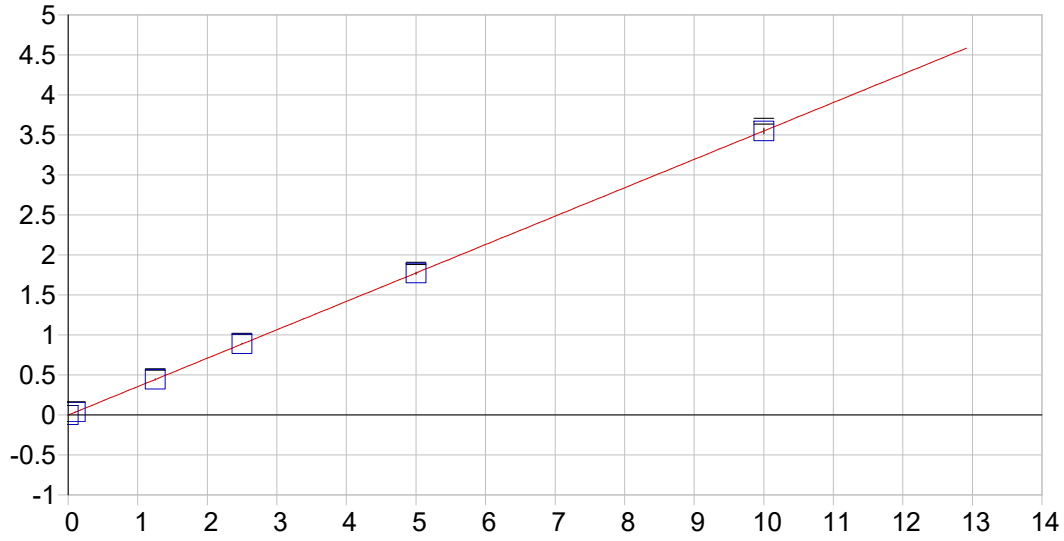
Sn 189.989 {478}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000092	Re-Slope:	1.000000
A1 (Gain):	0.188613	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999621	Status:	OK.
Std Error of Est:	0.000072		
Predicted MDL:	0.001285		
Predicted MQL:	0.004284		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.00700	.00558	-.001	-20.4	.00109	.000	1
S2	1.2500	1.1691	-.081	-6.48	.21941	.000	1
S3	2.5000	2.4321	-.068	-2.72	.45646	.001	1
S4	5.0000	4.9186	-.081	-1.63	.92307	.004	1
S5	10.000	10.232	.232	2.32	1.9205	.004	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



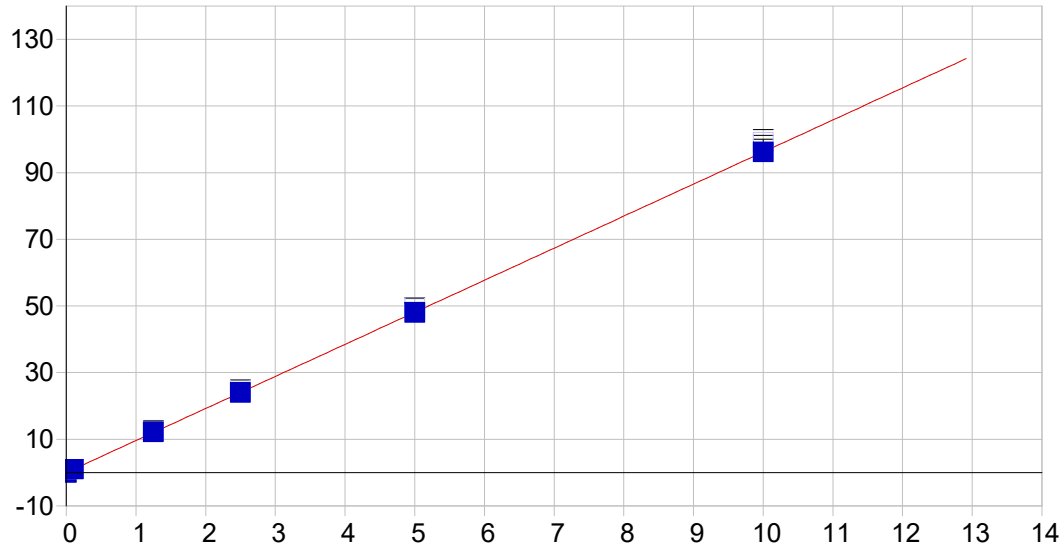
Ti 336.121 {100}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001337	Re-Slope:	1.000000
A1 (Gain):	0.355081	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000090		
Predicted MDL:	0.008006		
Predicted MQL:	0.026688		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00134	.003	1
S1	.10000	.10595	.006	5.95	.03628	.002	1
S2	1.2500	1.2521	.002	.168	.44326	.008	1
S3	2.5000	2.5102	.010	.408	.88998	.007	1
S4	5.0000	4.9890	-.011	-.220	1.7702	.014	1
S5	10.000	9.9927	-.007	-.073	3.5469	.036	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5



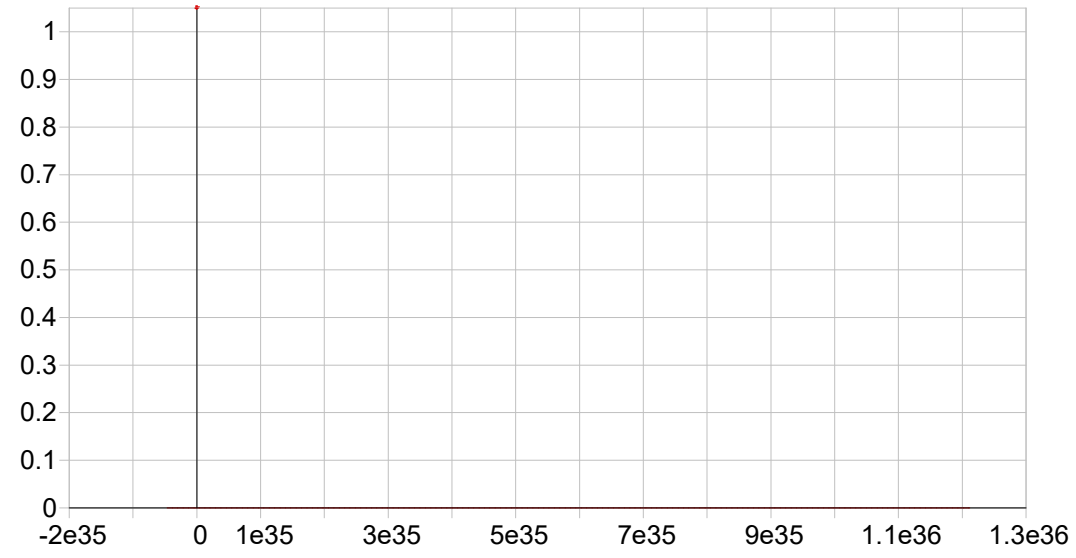
Sr 407.771 { 83}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.008466	Re-Slope:	1.000000
A1 (Gain):	9.620771	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.002690		
Predicted MDL:	0.000440		
Predicted MQL:	0.001465		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00853	.005	1
S1	.10000	.10596	.006	5.96	1.0119	.014	1
S2	1.2500	1.2627	.013	1.02	12.501	.167	1
S3	2.5000	2.4981	-.002	-.078	24.746	.104	1
S4	5.0000	4.9869	-.013	-.262	49.413	.132	1
S5	10.000	9.9965	-.003	-.035	99.052	.862	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

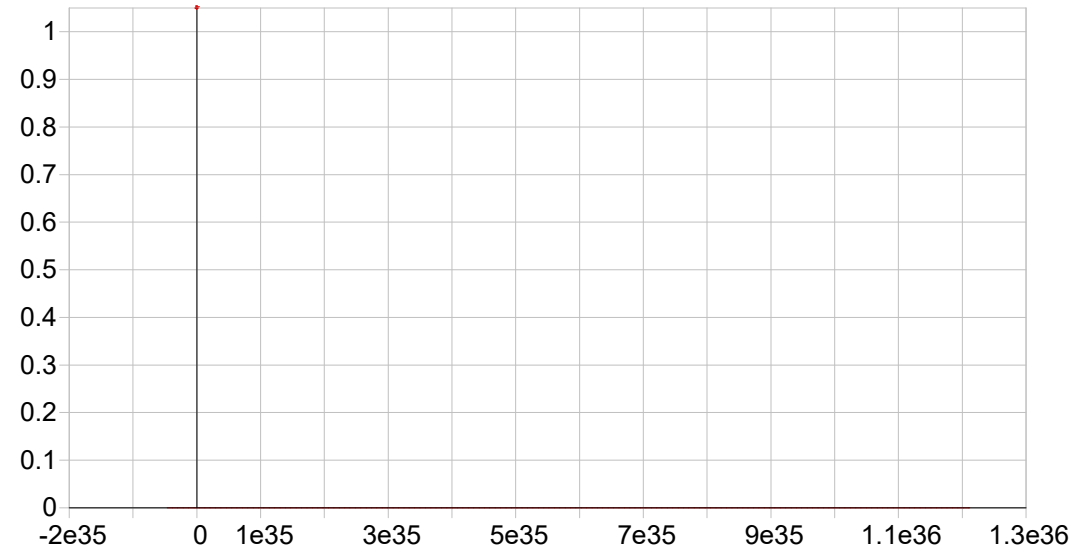


Y 224.306 {450}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 360.073 { 94}*

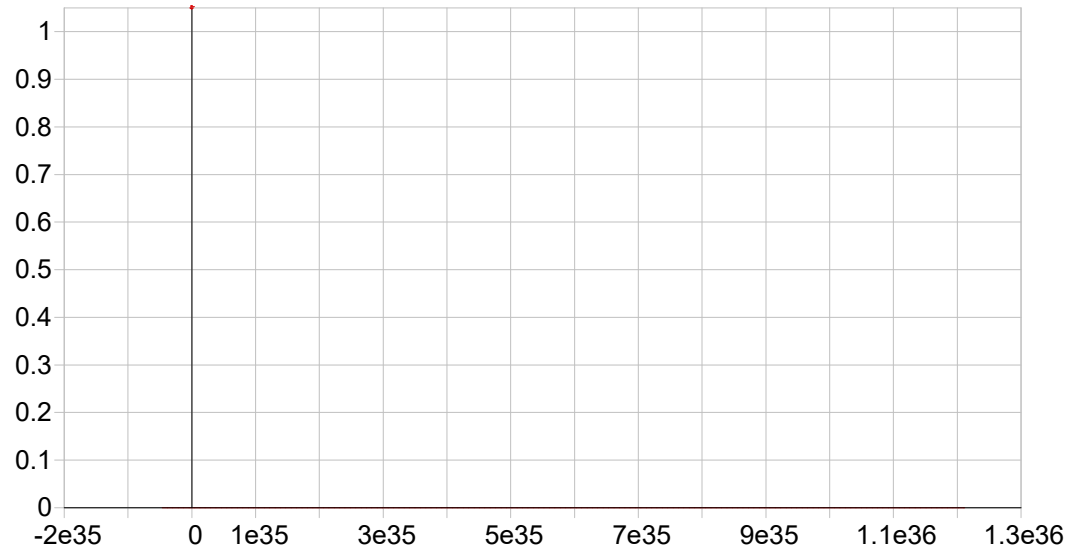
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



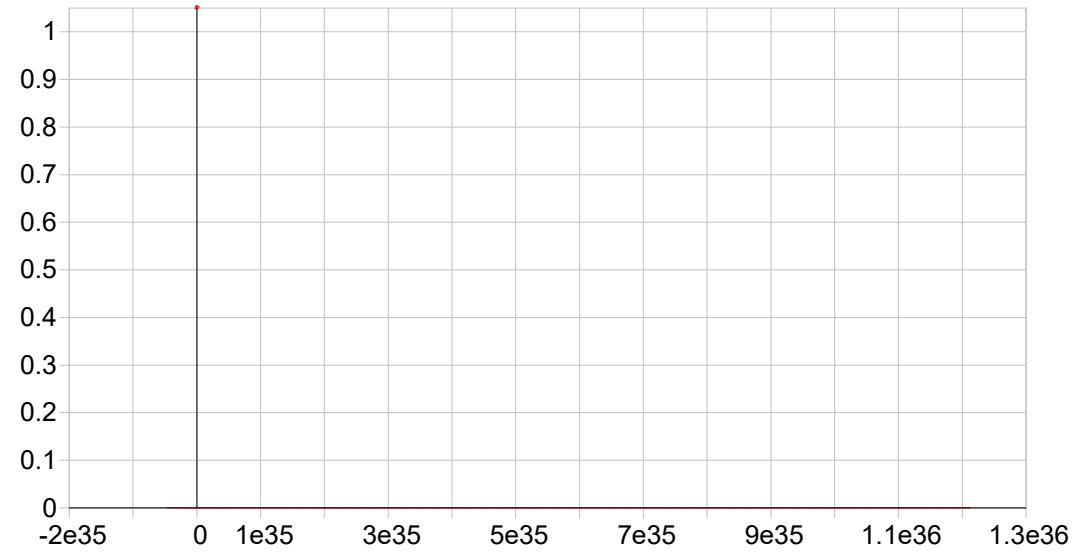
Y 371.030 { 91}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

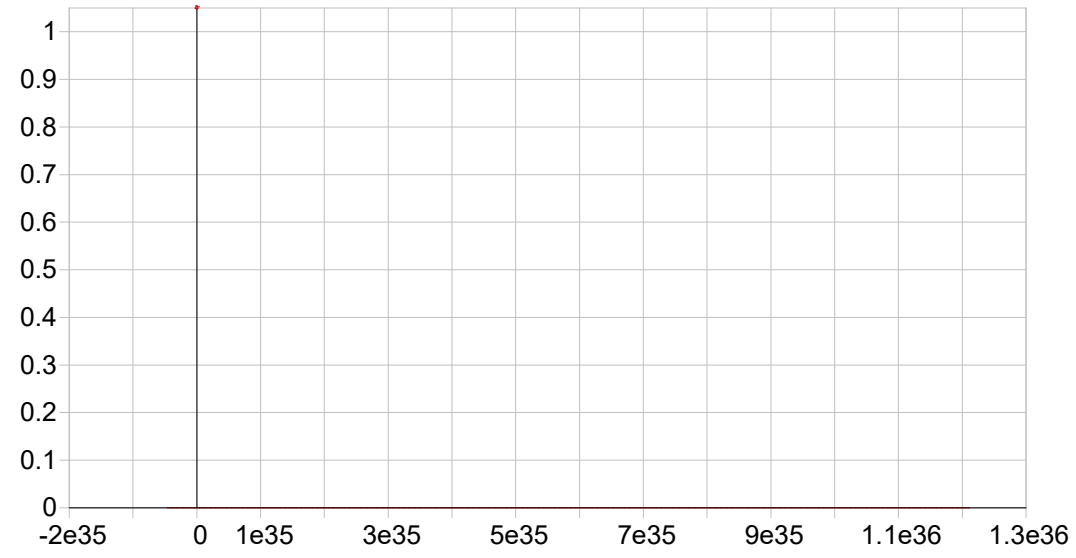


Y 224.306 {150}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



In 230.606 {446}*

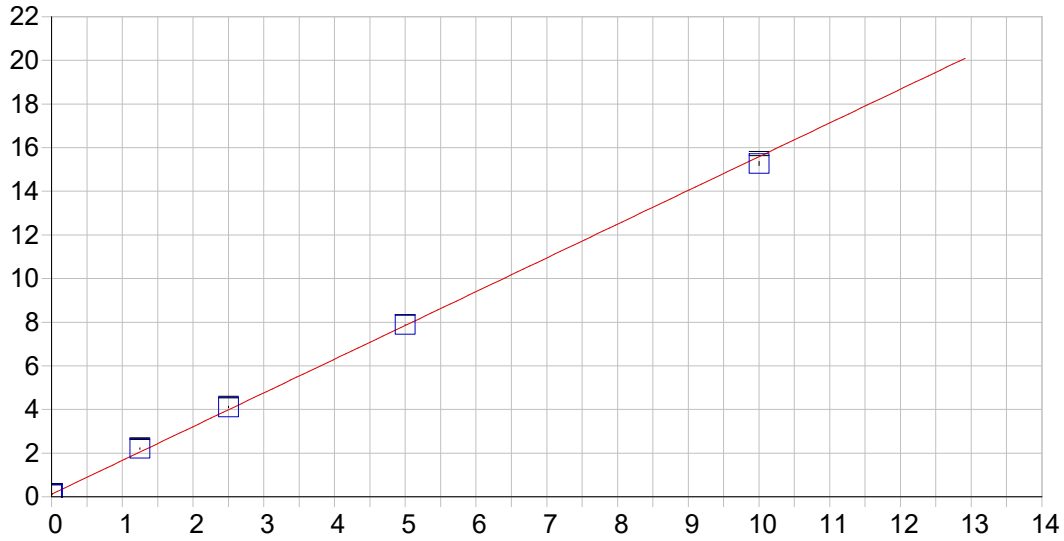
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Li 670.784 { 50}

Date of Fit:	01/09/2025 15:47:48	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.117355	Re-Slope:	1.000000
A1 (Gain):	1.546938	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999585	Status:	OK.
Std Error of Est:	0.000915		
Predicted MDL:	0.005871		
Predicted MQL:	0.019570		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.11736	.024	1
S5	10.000	9.7960	-.204	-2.04	15.271	.095	1
S4	5.0000	5.0208	.021	.415	7.8842	.008	1
S3	2.5000	2.5829	.083	3.32	4.1130	.040	1
S2	1.2500	1.3522	.102	8.18	2.2091	.032	1
S1	.01500	.01315	-.002	-12.3	.13770	.008	1

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S0 Acquired: 01/09/2025 15:24:22 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.6009	-.00048	-.00118	.00050	-.00008	.00010	.18742	.02269
Stddev	.3514	.00043	.00058	.00027	.00038	.00257	.01570	.00603
%RSD	21.949	89.328	48.978	53.233	487.44	2572.8	8.3785	26.596
#1	1.1960	-.00089	-.00070	.00072	-.00039	.00218	.19996	.02561
#2	1.8253	-.00052	-.00102	.00021	.00034	-.00277	.19250	.02670
#3	1.7814	-.00003	-.00183	.00057	-.00018	.00088	.16981	.01575

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00022	.01405	.00000	-.00114	.09352	.00069	-.00168	-.00280
Stddev	.00034	.00337	.00026	.00012	.01285	.00087	.00199	.00123
%RSD	154.32	23.974	5551.7	10.388	13.742	126.46	118.15	43.810
#1	.00035	.01349	.00005	-.00109	.10813	.00166	-.00005	-.00309
#2	-.00016	.01766	.00024	-.00105	.08848	.00000	-.00389	-.00386
#3	.00047	.01099	-.00028	-.00127	.08396	.00040	-.00111	-.00146

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00147	.00092	.05951	-.03264	.00228	.10719	-.00379	.00586
Stddev	.00038	.00028	.01730	.00854	.00038	.01022	.00018	.00213
%RSD	26.149	30.626	29.070	26.153	16.651	9.5323	4.8170	36.373
#1	-.00103	.00124	.07738	-.03429	.00256	.11863	-.00392	.00410
#2	-.00163	.00070	.04284	-.04023	.00242	.09897	-.00358	.00524
#3	-.00175	.00083	.05831	-.02340	.00185	.10396	-.00388	.00823

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00076	.00027	.02678	.00009	-.00134	-.00853	.11736
Stddev	.00019	.00020	.00293	.00023	.00258	.00450	.02399
%RSD	24.835	74.582	10.943	249.35	192.88	52.773	20.440
#1	.00097	.00033	.02397	.00035	-.00047	-.00578	.09700
#2	.00072	.00044	.02655	.00004	.00070	-.01372	.14380
#3	.00059	.00005	.02982	-.00010	-.00425	-.00608	.11127

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S0 Acquired: 01/09/2025 15:24:22 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2149.8	19880.	878.06	1626.7	2529.7
Stddev	10.6	105.	4.83	6.7	12.8
%RSD	.49144	.52784	.54981	.41092	.50561
#1	2161.8	19794.	872.56	1619.6	2542.8
#2	2145.6	19996.	880.05	1632.8	2529.2
#3	2142.0	19849.	881.58	1627.8	2517.2

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S1 Acquired: 01/09/2025 15:28:27 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.7973	.00188	.00106	.00188	.00557	.02145	1.0075	.12131
Stddev	.4222	.00011	.00111	.00025	.00080	.00327	.0097	.00428
%RSD	11.119	5.6817	104.11	13.016	14.359	15.241	.96376	3.5263
#1	3.3686	.00188	.00005	.00161	.00565	.02496	1.0167	.11773
#2	4.2128	.00198	.00224	.00196	.00633	.01849	1.0085	.12016
#3	3.8104	.00177	.00089	.00208	.00473	.02092	.99738	.12605

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01570	.44086	.00252	.04002	.35369	.00271	.00366	.04602
Stddev	.00015	.00225	.00034	.00047	.01777	.00222	.00144	.00121
%RSD	.96807	.51059	13.424	1.1850	5.0234	81.665	39.354	2.6275
#1	.01552	.44302	.00234	.04029	.37391	.00269	.00341	.04509
#2	.01577	.44104	.00291	.04031	.34059	.00494	.00236	.04558
#3	.01580	.43853	.00231	.03948	.34657	.00051	.00521	.04739

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02346	.00516	7.1585	.47330	.10635	.29797	-.00318	.00701
Stddev	.00041	.00037	.1405	.00755	.00238	.01448	.00026	.00810
%RSD	1.7317	7.2166	1.9629	1.5951	2.2378	4.8586	8.1846	115.54
#1	.02302	.00495	7.3208	.47906	.10627	.31386	-.00340	.01542
#2	.02355	.00559	7.0786	.46475	.10876	.29453	-.00324	-.00073
#3	.02382	.00494	7.0762	.47608	.10401	.28553	-.00289	.00634

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00485	.00296	.94354	.00109	.03628	1.0119	.13770
Stddev	.00005	.00004	.02269	.00011	.00191	.0136	.00790
%RSD	1.0502	1.3814	2.4049	10.462	5.2600	1.3455	5.7364
#1	.00488	.00299	.96870	.00121	.03576	1.0276	.13752
#2	.00486	.00298	.92464	.00098	.03840	1.0034	.14569
#3	.00479	.00292	.93727	.00107	.03469	1.0047	.12990

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S1 Acquired: 01/09/2025 15:28:27 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2139.6	19583.	871.91	1609.8	2468.5
Stddev	6.3	40.	13.30	1.3	3.7
%RSD	.29312	.20356	1.5254	.07825	.14892
#1	2133.8	19629.	856.56	1609.9	2467.1
#2	2138.6	19563.	879.95	1608.4	2465.7
#3	2146.2	19557.	879.22	1610.9	2472.7

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S2 Acquired: 01/09/2025 15:32:31 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	220.06	.12303	1.7418	.06335	.12503	3.6890	10.673	2.7130
Stddev	.99	.00063	.0043	.00042	.00060	.0377	.153	.0257
%RSD	.45069	.51328	.24698	.66463	.48321	1.0227	1.4369	.94907
#1	219.18	.12240	1.7399	.06324	.12567	3.7320	10.849	2.7424
#2	219.87	.12366	1.7389	.06300	.12496	3.6617	10.564	2.6943
#3	221.13	.12303	1.7468	.06382	.12446	3.6731	10.607	2.7024

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.1628	5.3899	1.1190	.54221	37.123	.92404	1.2570	.57656
Stddev	.0067	.0626	.0045	.00059	.284	.01231	.0213	.01055
%RSD	.30825	1.1621	.40114	.10890	.76380	1.3326	1.6948	1.8307
#1	2.1587	5.4611	1.1226	.54201	37.449	.93806	1.2815	.58873
#2	2.1591	5.3658	1.1205	.54174	36.938	.91909	1.2431	.56989
#3	2.1705	5.3430	1.1140	.54287	36.980	.91498	1.2463	.57107

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.41278	.14124	51.393	5.6512	6.3939	1.6000	.06957	1.6734
Stddev	.00061	.00153	.433	.0402	.0133	.0302	.00055	.0109
%RSD	.14690	1.0798	.84290	.71196	.20816	1.8861	.78645	.65239
#1	.41348	.14266	51.892	5.6947	6.3836	1.6344	.07001	1.6829
#2	.41244	.14144	51.175	5.6153	6.3893	1.5780	.06896	1.6614
#3	.41242	.13963	51.113	5.6434	6.4090	1.5876	.06974	1.6758

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.52633	.04101	2.2782	.21941	.44326	12.501	2.2091
Stddev	.00125	.00044	.0240	.00039	.00824	.167	.0317
%RSD	.23841	1.0626	1.0525	.17568	1.8598	1.3363	1.4357
#1	.52590	.04064	2.3058	.21946	.45241	12.693	2.2457
#2	.52534	.04090	2.2621	.21900	.44094	12.414	2.1929
#3	.52774	.04149	2.2668	.21977	.43642	12.394	2.1888

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S2 Acquired: 01/09/2025 15:32:31 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2049.5	18776.	850.80	1550.0	2118.3
Stddev	2.8	197.	10.80	8.9	2.7
%RSD	.13857	1.0516	1.2690	.57304	.12586
#1	2046.2	18629.	838.95	1542.6	2116.1
#2	2050.8	18698.	853.39	1547.7	2117.6
#3	2051.4	19001.	860.08	1559.8	2121.3

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S3 Acquired: 01/09/2025 15:36:24 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	432.24	.24975	3.5851	.12955	.25606	7.2491	20.797	5.2474
Stddev	1.76	.00092	.0078	.00106	.00111	.0198	.217	.1122
%RSD	.40742	.36819	.21702	.81541	.43332	.27251	1.0443	2.1389
#1	433.91	.24906	3.5768	.12842	.25482	7.2328	20.552	5.2107
#2	432.40	.24941	3.5865	.13052	.25695	7.2711	20.874	5.3733
#3	430.40	.25079	3.5921	.12971	.25643	7.2434	20.966	5.1580

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.4762	10.577	2.2355	1.1037	70.765	1.8330	2.4738	1.1349
Stddev	.0109	.090	.0011	.0020	1.012	.0082	.0146	.0082
%RSD	.24278	.85178	.04900	.17926	1.4298	.44809	.59008	.72151
#1	4.4683	10.473	2.2360	1.1023	70.374	1.8265	2.4608	1.1281
#2	4.4718	10.639	2.2363	1.1029	71.914	1.8422	2.4896	1.1440
#3	4.4886	10.618	2.2343	1.1060	70.007	1.8302	2.4710	1.1326

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.85319	.28328	98.504	11.099	13.129	3.0637	.15086	3.2545
Stddev	.00295	.00112	1.388	.171	.069	.0293	.00065	.0551
%RSD	.34532	.39453	1.4093	1.5425	.52416	.95523	.43031	1.6947
#1	.85159	.28434	97.655	11.005	13.190	3.0304	.15011	3.2232
#2	.85140	.28212	100.11	11.296	13.054	3.0854	.15117	3.3182
#3	.85659	.28340	97.751	10.995	13.143	3.0753	.15130	3.2221

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.0737	.08734	4.3825	.45646	.88998	24.746	4.1130
Stddev	.0023	.00038	.0743	.00139	.00671	.104	.0400
%RSD	.21146	.43659	1.6950	.30444	.75420	.42184	.97349
#1	1.0711	.08690	4.3632	.45589	.88248	24.626	4.0689
#2	1.0746	.08760	4.4645	.45545	.89207	24.804	4.1470
#3	1.0754	.08753	4.3197	.45804	.89541	24.809	4.1231

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S3 Acquired: 01/09/2025 15:36:24 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1958.4	18075.	852.78	1470.2	1976.3
Stddev	9.0	113.	7.51	14.5	12.4
%RSD	.45771	.62447	.88045	.98892	.62507
#1	1965.0	18072.	857.91	1466.0	1981.4
#2	1962.0	18189.	844.16	1486.3	1985.3
#3	1948.2	17963.	856.27	1458.2	1962.2

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S4 Acquired: 01/09/2025 15:40:13 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	842.48	.48991	7.2566	.26246	.51533	14.396	41.045	10.359
Stddev	2.60	.00206	.0253	.00062	.00172	.097	.217	.053
%RSD	.30872	.42131	.34814	.23652	.33309	.67232	.52869	.50950
#1	842.44	.48849	7.2327	.26202	.51505	14.502	40.800	10.352
#2	839.89	.48897	7.2542	.26218	.51376	14.372	41.122	10.415
#3	845.09	.49228	7.2830	.26317	.51716	14.313	41.214	10.311

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.0434	20.745	4.4009	2.1954	137.35	3.6472	4.9139	2.2362
Stddev	.0317	.038	.0120	.0069	.62	.0034	.0155	.0144
%RSD	.35070	.18128	.27327	.31424	.45061	.09327	.31581	.64271
#1	9.0182	20.702	4.3922	2.1903	137.40	3.6477	4.9239	2.2359
#2	9.0331	20.760	4.4146	2.1926	137.94	3.6503	4.9218	2.2507
#3	9.0790	20.772	4.3958	2.2032	136.71	3.6436	4.8960	2.2219

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.7183	.56228	186.38	21.808	26.566	6.0648	.31489	6.4191
Stddev	.0059	.00154	.52	.070	.129	.0321	.00082	.0285
%RSD	.34355	.27312	.28067	.32326	.48654	.52877	.26022	.44405
#1	1.7140	.56213	186.31	21.869	26.583	6.0333	.31413	6.4199
#2	1.7158	.56389	186.93	21.826	26.685	6.0638	.31479	6.4472
#3	1.7250	.56083	185.89	21.731	26.429	6.0974	.31576	6.3902

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.1455	.18166	8.4797	.92307	1.7702	49.413	7.8842
Stddev	.0038	.00069	.0434	.00375	.0140	.132	.0077
%RSD	.17786	.38092	.51222	.40608	.78971	.26778	.09714
#1	2.1442	.18093	8.4816	.92001	1.7808	49.521	7.8767
#2	2.1426	.18173	8.5221	.92195	1.7753	49.452	7.8839
#3	2.1499	.18231	8.4353	.92725	1.7543	49.265	7.8920

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S4 Acquired: 01/09/2025 15:40:13 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1870.6	17441.	832.68	1399.6	1862.8
Stddev	3.1	16.	2.24	3.0	1.4
%RSD	.16704	.09397	.26926	.21166	.07362
#1	1868.0	17460.	832.49	1401.5	1863.6
#2	1869.7	17432.	830.53	1396.2	1861.3
#3	1874.1	17432.	835.00	1401.0	1863.7

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S5 Acquired: 01/09/2025 15:43:59 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1669.4	.98943	15.111	.56454	1.1081	28.952	82.879	20.596
Stddev	4.8	.00281	.046	.00222	.0053	.325	.383	.243
%RSD	.28462	.28449	.30423	.39320	.48297	1.1238	.46200	1.1813
#1	1666.1	.98937	15.088	.56256	1.1060	29.267	83.306	20.876
#2	1667.2	.98664	15.080	.56412	1.1040	28.972	82.764	20.457
#3	1674.8	.99227	15.163	.56694	1.1141	28.617	82.566	20.453

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	18.718	41.078	8.8853	4.4930	268.35	7.2483	9.7542	4.4544
Stddev	.056	.298	.0236	.0115	3.26	.0760	.0852	.0504
%RSD	.29667	.72547	.26502	.25526	1.2131	1.0487	.87318	1.1322
#1	18.688	41.350	8.8605	4.4867	272.11	7.3199	9.8452	4.5008
#2	18.683	41.124	8.9073	4.4860	266.36	7.2564	9.7412	4.4616
#3	18.782	40.759	8.8881	4.5062	266.58	7.1685	9.6763	4.4007

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.5554	1.1506	341.95	43.457	56.396	12.248	.67020	12.534
Stddev	.0079	.0051	4.10	.567	.255	.046	.00249	.158
%RSD	.22338	.44608	1.1998	1.3037	.45206	.37617	.37112	1.2640
#1	3.5531	1.1474	346.42	44.109	56.484	12.276	.66970	12.713
#2	3.5489	1.1565	341.06	43.080	56.595	12.274	.66801	12.412
#3	3.5643	1.1478	338.36	43.182	56.108	12.195	.67290	12.476

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.5457	.38850	16.791	1.9205	3.5469	99.052	15.271
Stddev	.0245	.00097	.220	.0040	.0360	.862	.095
%RSD	.53963	.25024	1.3113	.20765	1.0160	.86983	.62130
#1	4.5340	.38819	17.043	1.9180	3.5820	99.914	15.339
#2	4.5291	.38772	16.639	1.9183	3.5488	99.051	15.312
#3	4.5739	.38959	16.690	1.9251	3.5100	98.191	15.163

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S5 Acquired: 01/09/2025 15:43:59 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1714.5	16779.	826.00	1288.7	1730.7
Stddev	4.3	135.	6.91	11.1	2.1
%RSD	.24953	.80263	.83620	.85830	.12121
#1	1718.0	16899.	818.92	1295.1	1733.0
#2	1715.7	16633.	826.36	1275.9	1728.9
#3	1709.7	16804.	832.72	1294.9	1730.2

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: S6 Acquired: 01/09/2025 15:47:53 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	76.783	65.032	18.823	6.7904	888.23
Stddev	.258	.278	.048	.0235	6.54
%RSD	.33658	.42711	.25524	.34673	.73632
#1	76.546	65.140	18.790	6.7763	893.47
#2	77.059	65.239	18.878	6.8176	890.33
#3	76.744	64.716	18.800	6.7774	880.90

Int. Std.	Y_3710
Units	Cts/S
Avg	805.77
Stddev	3.86
%RSD	.47954
#1	806.26
#2	801.69
#3	809.37

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICV056 Acquired: 01/09/2025 16:16:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV056 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.054501	.9644973	.9399848	.9609912	.9652180	2.406449
Stddev	.004371	.0021937	.0094935	.0064532	.0021387	.078885
%RSD	.4145087	.2274411	1.009963	.6715203	.2215756	3.278054
#1	1.051735	.9633307	.9347068	.9535840	.9635682	2.324824
#2	1.052227	.9631335	.9343030	.9639915	.9644516	2.412251
#3	1.059540	.9670278	.9509444	.9653980	.9676343	2.482273

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4985257	.5062102	.4988889	10.11829	.5214994	.5179747
Stddev	.0072790	.0059574	.0017889	.05153	.0015121	.0017033
%RSD	1.460103	1.176872	.3585816	.5092511	.2899519	.3288308
#1	.5006706	.5092014	.4979747	10.14354	.5197827	.5160951
#2	.4904152	.4993498	.4977418	10.05901	.5220819	.5184130
#3	.5044912	.5100793	.5009502	10.15233	.5226336	.5194159

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5444407	9.933638	.4928219	6.001199	.5244319	.2424891
Stddev	.0050498	.068424	.0043134	.119937	.0009170	.0010418
%RSD	.9275244	.6888157	.8752525	1.998553	.1748483	.4296380
#1	.5464939	9.913452	.4918864	5.866351	.5235052	.2414427
#2	.5386876	9.877578	.4890530	6.095951	.5244516	.2424983
#3	.5481404	10.00989	.4975264	6.041297	.5253388	.2435263

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.476341	.5107611	.9405983	9.279590	F .0036569	F -.031037
Stddev	.076904	.0029913	.0014751	.182437	.0027153	.001955
%RSD	.8115332	.5856654	.1568215	1.966008	74.25039	6.298174
#1	9.491648	.5122375	.9394900	9.087260	.0024514	-.031578
#2	9.392935	.5073186	.9422725	9.301322	.0067662	-.028869
#3	9.544441	.5127273	.9400323	9.450188	.0017532	-.032664

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICV056 Acquired: 01/09/2025 16:16:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV056 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0013690	F .0029603	F .0027703	F .0004639	F .0062892	F -.008295
Stddev	.0007786	.0022109	.0035628	.0007546	.0150613	.000807
%RSD	56.87129	74.68628	128.6067	162.6655	239.4791	9.722463
#1	.0021475	.0039417	-.000372	.0003874	.0197342	-.007448
#2	.0005904	.0045106	.002042	.0012538	.0091200	-.009054
#3	.0013691	.0004285	.006641	-.000250	-.009987	-.008384

Elem	Li6707
Units	ppm
Avg	F .0031599
Stddev	.0049378
%RSD	156.2631
#1	.0079375
#2	.0034662
#3	-.001924

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2129.369	19567.78	891.2232	1619.879	2379.022
Stddev	5.274	93.89	4.0943	11.472	5.909
%RSD	.2476749	.4798090	.4594031	.7082194	.2483778
#1	2134.481	19657.34	889.8515	1624.974	2385.810
#2	2123.947	19470.09	895.8273	1606.741	2376.231
#3	2129.680	19575.91	887.9909	1627.921	2375.026

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICB056 Acquired: 01/09/2025 16:20:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB056 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026722	.0017708	-.005674	-.001957	-.002304	-.007159	-.001528
Stddev	.0010964	.0023547	.002158	.004819	.000918	.099825	.003742
%RSD	41.02923	132.9739	38.03632	246.2217	39.83492	1394.346	244.9324
#1	.0037720	-.000932	-.006458	-.006364	-.001937	.054050	.002273
#2	.0015792	.002867	-.007330	-.002696	-.001626	.046824	-.001648
#3	.0026655	.003378	-.003233	.003188	-.003348	-.122352	-.005209

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000154	.0001402	.1204065	-.000326	.0000471	-.000494	-.013883
Stddev	.000313	.0000355	.0553096	.001224	.0002563	.001076	.026092
%RSD	203.5386	25.30251	45.93571	375.6700	544.7299	217.8924	187.9422
#1	.000108	.0000995	.1528976	-.001479	-.000053	.000729	-.016907
#2	-.000069	.0001645	.1517781	-.000456	.000338	-.000916	.013589
#3	-.000500	.0001565	.0565438	.000958	-.000144	-.001295	-.038332

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051486	.1002956	-.000313	-.000704	.0427680	.0011502	.0002976
Stddev	.0046079	.1326721	.000782	.001358	.0255167	.0005495	.0010263
%RSD	89.49820	132.2811	249.9887	193.0502	59.66315	47.77680	344.8272
#1	.0072785	.2457234	-.001125	-.002177	.0205928	.0017696	-.000887
#2	.0083063	.0692940	-.000249	.000498	.0370537	.0007213	.000858
#3	-.000139	-.014131	.000435	-.000431	.0706574	.0009595	.000922

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.148743	-.000372	.0008255	.0000575	.0057700	-.002277	-.001634
Stddev	.042659	.001112	.0046451	.0008763	.0009150	.003799	.000554
%RSD	28.67976	298.7115	562.7113	1524.140	15.85800	166.7972	33.90643
#1	-.099515	-.000535	.0059574	-.000934	.0065701	-.003713	-.002222
#2	-.174866	-.001394	-.003091	.000727	.0047724	-.005149	-.001556
#3	-.171847	.000813	-.000390	.000380	.0059675	.002030	-.001123

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICB056 Acquired: 01/09/2025 16:20:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB056 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0026428	.0003797	.0008655
Stddev	.0085962	.0003148	.0062799
%RSD	325.2754	82.91910	725.5709
#1	.0114722	.0007421	.0028459
#2	-.005700	.0002232	-.006166
#3	.002156	.0001737	.005917

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2162.514	19803.66	883.9889	1628.096	2539.654
Stddev	10.729	135.54	5.9463	9.247	15.595
%RSD	.4961282	.6844358	.6726666	.5679654	.6140742
#1	2151.094	19796.95	881.5333	1623.612	2523.732
#2	2164.065	19942.43	890.7697	1638.730	2540.331
#3	2172.383	19671.59	879.6636	1621.945	2554.901

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICSA056 Acquired: 01/09/2025 16:24:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA056 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065711	.0032985	-.007006	.0043113	.0119283	244.4054
Stddev	.0047051	.0041706	.002800	.0020784	.0054716	1.6030
%RSD	71.60246	126.4386	39.96972	48.20715	45.87106	.6558659
#1	.0118194	.0061536	-.005424	.0048963	.0091393	246.0226
#2	.0051635	-.001488	-.005355	.0020031	.0182325	242.8171
#3	.0027305	.005230	-.010239	.0060345	.0084132	244.3765

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000363	.0013166	.0005669	253.1261	.0493590	.0024519
Stddev	.003120	.0001551	.0001697	.8106	.0008715	.0004505
%RSD	858.7917	11.77802	29.93823	.3202540	1.765666	18.37391
#1	.003238	.0012016	.0004783	253.3823	.0483667	.0021722
#2	-.002090	.0012552	.0004598	252.2183	.0497100	.0029715
#3	-.002238	.0014929	.0007625	253.7777	.0500002	.0022118

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.016820	100.5131	.0072834	259.8343	.0003882	.0033932
Stddev	.001674	.6993	.0009460	2.2596	.0009946	.0004989
%RSD	9.952101	.6957093	12.98886	.8696349	256.1999	14.70253
#1	-.018669	101.1787	.0077208	260.7954	-.000517	.0039523
#2	-.016382	99.7844	.0079316	257.2530	.000229	.0029933
#3	-.015408	100.5762	.0061979	261.4544	.001453	.0032340

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2420162	.0017881	-.032685	-.696309	-.000073	F -.312394
Stddev	.0345129	.0006063	.000393	.579944	.002316	.001297
%RSD	14.26056	33.90772	1.201375	83.28836	3180.741	.4150810
#1	.2350539	.0015317	-.032554	-1.25244	-.002368	-.313326
#2	.2115153	.0013520	-.032375	-.74131	-.000113	-.312943
#3	.2794795	.0024804	-.033127	-.09517	.002262	-.310913

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICSA056 Acquired: 01/09/2025 16:24:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA056 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073825	.0166499	-.007504	F .0123032	.0098124	.0059599
Stddev	.0012894	.0023193	.003874	.0007583	.0055604	.0007240
%RSD	17.46637	13.93006	51.61723	6.163869	56.66713	12.14765
#1	.0086683	.0172034	-.005718	.0125273	.0033964	.0067549
#2	.0060894	.0141038	-.011949	.0114580	.0128102	.0057862
#3	.0073898	.0186423	-.004847	.0129242	.0132306	.0053385

Elem	Li6707
Units	ppm
Avg	F .0213720
Stddev	.0033067
%RSD	15.47202
#1	.0246079
#2	.0215093
#3	.0179988

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1997.188	17777.16	836.5965	1471.309	2011.791
Stddev	11.380	74.22	6.0828	6.647	9.313
%RSD	.5697876	.4174746	.7270920	.4518026	.4629053
#1	1987.773	17691.94	830.5078	1473.775	2004.232
#2	1993.956	17827.62	842.6734	1463.781	2008.947
#3	2009.834	17811.90	836.6084	1476.370	2022.194

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICSAB056 Acquired: 01/09/2025 16:28:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB056 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1057474	.0953406	.0450677	.0556819	.5703733	250.0213
Stddev	.0043569	.0030533	.0040363	.0074066	.0040609	6.4749
%RSD	4.120112	3.202538	8.956022	13.30167	.7119722	2.589755
#1	.1015607	.0970508	.0492433	.0640464	.5746411	257.4852
#2	.1102566	.0918155	.0411869	.0530436	.5665570	246.6668
#3	.1054248	.0971555	.0447728	.0499556	.5699219	245.9119

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5356720	.5336053	.9572904	258.5413	.5754660	.4794380
Stddev	.0153252	.0114617	.0020668	6.3483	.0017017	.0021721
%RSD	2.860925	2.147977	.2158992	2.455417	.2957066	.4530597
#1	.5526567	.5468279	.9576094	265.8670	.5735592	.4769377
#2	.5228782	.5274869	.9550827	255.1042	.5760085	.4805156
#3	.5314812	.5265010	.9591792	254.6526	.5768303	.4808605

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5100925	103.2154	.5176293	264.1130	.9531618	.2048530
Stddev	.0125637	2.5203	.0133596	6.0830	.0022969	.0019010
%RSD	2.463029	2.441742	2.580918	2.303171	.2409712	.9280010
#1	.5245440	106.1253	.5319853	271.1260	.9523775	.2030031
#2	.5017661	101.7905	.5153408	260.9459	.9513599	.2068013
#3	.5039673	101.7303	.5055617	260.2669	.9557481	.2047547

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2575899	.5286163	.9119540	-.327334	.0002730	F -.324806
Stddev	.0219008	.0114744	.0023820	.191926	.0063192	.010002
%RSD	8.502207	2.170648	.2611943	58.63323	2314.627	3.079333
#1	.2785544	.5418046	.9138462	-.247223	.0063683	-.335323
#2	.2593555	.5209205	.9127366	-.188441	-.006249	-.315415
#3	.2348596	.5231239	.9092792	-.546337	.000699	-.323679

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: ICSAB056 Acquired: 01/09/2025 16:28:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB056 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077877	.0274310	-.007075	F .0131289	-.000724	.0063052
Stddev	.0007698	.0064024	.003858	.0012608	.010900	.0011895
%RSD	9.885036	23.33998	54.53223	9.603506	1506.359	18.86596
#1	.0083339	.0348154	-.005281	.0124603	-.009334	.0065152
#2	.0069072	.0240447	-.011504	.0145833	.011532	.0073757
#3	.0081219	.0234328	-.004441	.0123433	-.004369	.0050246

Elem	Li6707
Units	ppm
Avg	.0020669
Stddev	.0024706
%RSD	119.5303
#1	.0015783
#2	-.000123
#3	.004745

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1982.175	17878.37	825.9091	1492.681	2006.742
Stddev	4.469	44.76	19.7996	3.815	6.903
%RSD	.2254800	.2503564	2.397313	.2555706	.3440036
#1	1981.072	17843.65	803.1030	1489.346	2007.424
#2	1987.093	17928.89	838.7037	1496.841	2013.279
#3	1978.361	17862.58	835.9206	1491.855	1999.523

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV138 Acquired: 01/09/2025 16:32:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV138 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.926010	4.793179	24.53606	5.024024	4.900037	399.7188
Stddev	.030011	.017705	.06763	.012729	.004755	3.8709
%RSD	.6092378	.3693882	.2756421	.2533613	.0970442	.9684091
#1	4.932932	4.792148	24.54307	5.020074	4.905254	404.1091
#2	4.951956	4.776012	24.46520	5.013737	4.895946	396.7970
#3	4.893143	4.811378	24.59992	5.038259	4.898912	398.2504

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.06798	.5087858	2.473136	404.0253	15.37743	2.376531
Stddev	.07588	.0025271	.004977	2.6441	.05340	.008305
%RSD	.7536492	.4966983	.2012289	.6544275	.3472776	.3494525
#1	10.11148	.5097609	2.473560	406.7686	15.31780	2.374293
#2	9.98037	.5059164	2.467961	401.4931	15.42085	2.369574
#3	10.11210	.5106802	2.477887	403.8143	15.39364	2.385725

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.93146	406.9898	15.04400	410.8687	2.487054	1.260868
Stddev	.10242	2.1409	.05606	1.5042	.002085	.004828
%RSD	.6859345	.5260320	.3726690	.3660982	.0838216	.3829377
#1	15.02326	409.1054	15.08945	411.9153	2.488772	1.256302
#2	14.82099	404.8245	14.98135	409.1450	2.484735	1.265922
#3	14.95013	407.0396	15.06120	411.5460	2.487656	1.260380

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	419.9493	2.496373	14.70857	154.9430	4.906097	F 4.150595
Stddev	4.7978	.022647	.01386	1.1202	.004694	.031523
%RSD	1.142471	.9071968	.0942570	.7229865	.0956774	.7594925
#1	425.4306	2.518079	14.71921	155.7098	4.906323	4.174276
#2	416.5118	2.472890	14.71360	153.6575	4.901294	4.114814
#3	417.9054	2.498149	14.69289	155.4619	4.910674	4.162694

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV138 Acquired: 01/09/2025 16:32:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV138 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.842420	4.973875	4.847152	4.965872	5.048343	4.771459
Stddev	.014754	.023757	.030250	.013571	.025436	.038057
%RSD	.3046912	.4776372	.6240868	.2732933	.5038533	.7975932
#1	4.844969	4.954884	4.870717	4.960902	5.077080	4.814403
#2	4.826557	4.966227	4.813040	4.955485	5.028715	4.741911
#3	4.855734	5.000514	4.857698	4.981227	5.039235	4.758064

Elem	Li6707
Units	ppm
Avg	5.060383
Stddev	.037064
%RSD	.7324365
#1	5.076629
#2	5.017970
#3	5.086550

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1813.285	16917.16	817.2165	1368.121	1792.412
Stddev	10.383	12.78	7.0262	1.564	12.824
%RSD	.5725879	.0755161	.8597716	.1143313	.7154448
#1	1814.156	16922.95	810.4002	1366.326	1794.775
#2	1823.204	16902.51	824.4353	1368.838	1803.890
#3	1802.494	16926.01	816.8140	1369.197	1778.571

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCB138 Acquired: 01/09/2025 16:36:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB138 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001932	-.012040	.0020230	-.008503	-.004146	.0378221
Stddev	.002577	.019661	.0023936	.003001	.002685	.0191363
%RSD	133.4086	163.2944	118.3204	35.29538	64.75786	50.59547
#1	-.001463	.000843	.0035999	-.005279	-.002691	.0376041
#2	.000379	-.002294	.0032003	-.009012	-.002502	.0187958
#3	-.004711	-.034670	-.000731	-.011216	-.007244	.0570664

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005051	-.000273	.0001065	-.009872	-.000873	.0001869
Stddev	.002669	.000100	.0001585	.075404	.000632	.0005514
%RSD	52.83975	36.57252	148.7950	763.8519	72.38726	295.0214
#1	-.003635	-.000382	.0000392	.075061	-.000143	.0006850
#2	-.003389	-.000187	-.000007	-.068940	-.001247	.0002812
#3	-.008130	-.000248	.000288	-.035736	-.001230	-.000406

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012442	-.075075	.0086902	.0685832	-.000468	-.000566
Stddev	.0014680	.021675	.0049022	.2271095	.001031	.001203
%RSD	117.9829	28.87126	56.41110	331.1443	220.3991	212.6989
#1	.0029117	-.083727	.0105939	.2486479	-.000572	-.000330
#2	.0001467	-.091087	.0123550	-.186559	-.001443	-.001870
#3	.0006743	-.050410	.0031217	.143661	.000611	.000502

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0676876	.0011149	.0012546	.1672786	-.000421	.0199236
Stddev	.0548188	.0008805	.0004854	.2722503	.001707	.0023099
%RSD	80.98797	78.97589	38.69002	162.7526	405.3930	11.59404
#1	.0421782	.0004456	.0018149	.2345731	-.002272	.0179279
#2	.1306125	.0021124	.0009883	-.132308	.001091	.0193888
#3	.0302720	.0007868	.0009606	.399571	-.000082	.0224540

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCB138 Acquired: 01/09/2025 16:36:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB138 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009007	-.002969	-.002520	.0000538	.0122039	-.000066
Stddev	.0005416	.000732	.003131	.0007842	.0043833	.000579
%RSD	60.12922	24.66761	124.2199	1456.814	35.91703	879.6475
#1	.0012958	-.003151	-.006071	.0002967	.0072329	.000599
#2	.0002833	-.002162	-.000157	-.000823	.0155138	-.000338
#3	.0011230	-.003593	-.001333	.000688	.0138651	-.000458

Elem	Li6707
Units	ppm
Avg	F .0296918
Stddev	.0030778
%RSD	10.36575
#1	.0327682
#2	.0296944
#3	.0266127

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2141.090	19665.53	876.2313	1601.612	2515.407
Stddev	4.310	78.62	2.5284	7.021	5.655
%RSD	.2013197	.3998081	.2885580	.4383586	.2248260
#1	2141.458	19608.23	878.8242	1593.695	2519.824
#2	2145.204	19755.16	876.0970	1604.059	2517.364
#3	2136.607	19633.19	873.7727	1607.082	2509.033

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165190BL Acquired: 01/09/2025 16:40:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW190 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003566	-.002235	-.005288	-.000499	-.001889	.0212349	-.003624
Stddev	.002394	.002925	.000837	.009471	.003366	.0659352	.004692
%RSD	67.13319	130.8699	15.82438	1897.587	178.1525	310.5041	129.4797
#1	-.005209	-.001284	-.006252	.005066	-.005015	-.047640	-.006279
#2	-.004671	-.005517	-.004750	-.011434	-.002327	.083772	.001794
#3	-.000819	.000096	-.004862	.004871	.001674	.027573	-.006386

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000101	.0000323	.0025358	-.000923	-.000472	-.001084	-.015287
Stddev	.000115	.0000980	.0393498	.000951	.000393	.001024	.023880
%RSD	113.5503	303.0913	1551.760	102.9976	83.18694	94.50833	156.2100
#1	-.000215	.0001383	.0398217	-.002007	-.000300	-.000065	.011741
#2	-.000102	-.000055	.0063813	-.000538	-.000922	-.002113	-.024069
#3	.000014	.000013	-.038596	-.000225	-.000195	-.001073	-.033533

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000649	.1223125	.0002567	-.001095	.0342793	.0007052	-.000767
Stddev	.005844	.1732867	.0001037	.000672	.0211216	.0002633	.000817
%RSD	900.5360	141.6754	40.37381	61.36773	61.61617	37.33561	106.5142
#1	.005862	.3002632	.0003626	-.000442	.0152132	.0009912	-.000415
#2	-.002369	.1125735	.0002521	-.001784	.0306411	.0006515	-.000185
#3	-.005439	-.045899	.0001555	-.001058	.0569838	.0004729	-.001701

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.073507	.0021648	.0070534	.0004603	.0019879	-.001167	-.000330
Stddev	.291201	.0020052	.0016180	.0009799	.0067681	.001706	.000335
%RSD	396.1562	92.62585	22.93894	212.9089	340.4567	146.1712	101.4477
#1	-.397841	.0002255	.0053752	.0015135	-.005717	-.000839	-.000091
#2	.011826	.0020391	.0071817	.0002917	.004710	-.003012	-.000186
#3	.165495	.0042300	.0086035	-.000424	.006972	.000351	-.000713

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165190BL Acquired: 01/09/2025 16:40:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW190 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0097752	-.000117	-.000558
Stddev	.0101531	.000835	.002381
%RSD	103.8668	716.2173	426.3905
#1	.0029124	-.000825	-.002921
#2	.0049747	.000804	-.000594
#3	.0214384	-.000329	.001840

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2169.751	19830.51	884.0798	1631.578	2550.308
Stddev	8.258	68.89	5.1191	12.401	7.599
%RSD	.3806054	.3473983	.5790322	.7600718	.2979591
#1	2161.534	19881.06	879.7515	1645.891	2543.386
#2	2169.670	19752.04	889.7303	1624.045	2549.098
#3	2178.050	19858.42	882.7576	1624.798	2558.439

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165190BS Acquired: 01/09/2025 16:44:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS190 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0239835	.0518567	.0147327	.0510652	.1072379	.4526138
Stddev	.0019289	.0034921	.0001912	.0048891	.0037412	.0484578
%RSD	8.042395	6.734077	1.298113	9.574217	3.488690	10.70621
#1	.0224052	.0550762	.0145149	.0513608	.1102573	.4810427
#2	.0234117	.0523496	.0148099	.0460350	.1030526	.3966621
#3	.0261336	.0481444	.0148733	.0557997	.1084038	.4801368

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4056733	.0101725	.0089031	10.45463	.0194814	.0962777
Stddev	.0021586	.0002274	.0000716	.13151	.0018740	.0004301
%RSD	.5320981	2.235196	.8043938	1.257864	9.619309	.4467511
#1	.4078226	.0101113	.0089517	10.30463	.0205860	.0967738
#2	.4035056	.0099820	.0088209	10.50921	.0205406	.0960514
#3	.4056917	.0104242	.0089367	10.55006	.0173177	.0960081

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0581090	.1807624	.0336836	10.59930	.0732376	.0200442
Stddev	.0003406	.0839402	.0027122	.33570	.0002925	.0004146
%RSD	.5861890	46.43676	8.051897	3.167220	.3994158	2.068189
#1	.0583757	.1687614	.0311240	10.76952	.0734285	.0199360
#2	.0577253	.1034686	.0334008	10.81580	.0729008	.0205021
#3	.0582259	.2700573	.0365261	10.21259	.0733833	.0196945

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.23187	.1073666	.1143011	9.367460	.0146438	F .0023803
Stddev	.06339	.0010961	.0006128	.065386	.0030979	.0048008
%RSD	.5182559	1.020865	.5361380	.6980108	21.15531	201.6867
#1	12.17557	.1067577	.1136364	9.324623	.0141579	.0068792
#2	12.21951	.1067102	.1148436	9.335035	.0179560	.0029359
#3	12.30053	.1086319	.1144234	9.442721	.0118175	-.002674

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165190BS Acquired: 01/09/2025 16:44:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS190 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0203482	.1656855	F 1.071626	.0117485	.2043677	.2093093
Stddev	.0007521	.0036579	.007317	.0020202	.0104652	.0012214
%RSD	3.696154	2.207752	.6828073	17.19559	5.120783	.5835419
#1	.0194908	.1622216	1.074729	.0133522	.2148938	.2083420
#2	.0208962	.1653244	1.063269	.0124138	.2042448	.2089040
#3	.0206578	.1695106	1.076880	.0094795	.1939644	.2106818

Elem	Li6707
Units	ppm
Avg	F .0396115
Stddev	.0036380
%RSD	9.184260
#1	.0437978
#2	.0372163
#3	.0378204

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2131.716	19468.29	882.1687	1613.836	2396.010
Stddev	4.470	60.99	5.3215	10.099	5.621
%RSD	.2096781	.3132662	.6032304	.6257485	.2345907
#1	2127.956	19398.47	881.2303	1622.807	2391.330
#2	2130.534	19511.13	887.8970	1602.899	2394.455
#3	2136.658	19495.28	877.3788	1615.801	2402.244

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165909BL Acquired: 01/09/2025 16:48:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS909 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001605	.0004529	-.005560	-.009768	.0017259	-.016263	-.004111
Stddev	.003556	.0026886	.002397	.004016	.0070938	.025337	.003082
%RSD	221.5159	593.6995	43.11348	41.11392	411.0250	155.7953	74.96819
#1	-.002997	-.002643	-.006241	-.007380	.0094665	-.039277	-.002567
#2	-.004255	.002197	-.007542	-.007520	.0001761	.010888	-.007659
#3	.002436	.001805	-.002896	-.014405	-.004465	-.020399	-.002105

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000175	.0000520	.0145096	-.000803	.0000526	-.000247	-.065391
Stddev	.000269	.0000910	.0312275	.000548	.0005275	.001159	.067292
%RSD	153.8781	175.2299	215.2201	68.28231	1003.088	469.2858	102.9060
#1	-.000102	-.000033	.0354578	-.000282	-.000552	.000593	-.056962
#2	-.000472	.000148	.0294526	-.000751	.000422	-.001569	-.002711
#3	.000050	.000041	-.021382	-.001375	.000288	.000235	-.136500

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035479	-.053180	.0001876	-.001430	.0467273	.0012472	-.001420
Stddev	.0041967	.116231	.0011735	.000576	.0041949	.0005346	.000823
%RSD	118.2856	218.5627	625.6461	40.30933	8.977433	42.86209	57.93261
#1	-.001238	.079790	.0000403	-.001498	.0420260	.0007176	-.001153
#2	.006601	-.103888	.0014277	-.001969	.0480677	.0017866	-.002343
#3	.005280	-.135441	-.000905	-.000822	.0500882	.0012374	-.000764

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.136526	-.000924	-.000216	.0010574	.0007806	-.003174	-.000308
Stddev	.109588	.003468	.000823	.0008259	.0032096	.001872	.001051
%RSD	80.26948	375.2730	381.3310	78.10246	411.1688	58.97834	341.3002
#1	-.045487	-.002008	.000164	.0018845	.0016745	-.005334	-.000283
#2	-.258161	-.003721	-.001160	.0010549	-.002781	-.002026	-.001371
#3	-.105929	.002956	.000349	.0002328	.003448	-.002161	.000730

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165909BL Acquired: 01/09/2025 16:48:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS909 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0021551	.0003057	-.010304
Stddev	.0009883	.0002565	.001933
%RSD	45.85723	83.90503	18.75819
#1	.0014838	.0004288	-.008098
#2	.0016916	.0000109	-.011114
#3	.0032900	.0004775	-.011700

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2192.768	20075.71	891.4495	1645.683	2572.124
Stddev	4.518	92.20	6.1632	5.863	6.105
%RSD	.2060339	.4592847	.6913706	.3562486	.2373690
#1	2188.547	20143.13	893.6788	1650.130	2565.738
#2	2192.223	19970.64	884.4818	1639.039	2572.729
#3	2197.534	20113.37	896.1879	1647.879	2577.904

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165909BS Acquired: 01/09/2025 16:52:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS909 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0201727	.0484723	.0168962	.0596797	.1062029	.4268540
Stddev	.0019415	.0036060	.0010884	.0105032	.0012568	.0567408
%RSD	9.624486	7.439188	6.441567	17.59926	1.183401	13.29279
#1	.0218224	.0444425	.0157776	.0715164	.1073399	.3777070
#2	.0206626	.0513945	.0179516	.0514731	.1064153	.4139049
#3	.0180332	.0495800	.0169593	.0560497	.1048534	.4889502

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3988148	.0099067	.0086457	10.40457	.0194988	.0930702
Stddev	.0017942	.0002341	.0001774	.03095	.0006417	.0003556
%RSD	.4498908	2.362636	2.052134	.2974990	3.291192	.3820954
#1	.3999997	.0101626	.0086594	10.41910	.0188989	.0933937
#2	.3996942	.0098542	.0088158	10.42559	.0194220	.0931274
#3	.3967505	.0097034	.0084618	10.36903	.0201754	.0926894

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0580692	.1533972	.0351313	10.45923	.0709480	.0177438
Stddev	.0006243	.0888096	.0084350	.22256	.0013593	.0014730
%RSD	1.075079	57.89519	24.00997	2.127853	1.915866	8.301606
#1	.0573706	.0572624	.0328220	10.35867	.0722944	.0184988
#2	.0582648	.2323794	.0444804	10.71432	.0695762	.0160463
#3	.0585723	.1705498	.0280915	10.30470	.0709734	.0186862

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.18845	.1068773	.1131159	9.688018	F .0120156	F -.000328
Stddev	.12903	.0022483	.0003795	.251417	.0027781	.004191
%RSD	1.058598	2.103653	.3355230	2.595132	23.12082	1277.266
#1	12.22382	.1074514	.1133907	9.602147	.0090546	-.003058
#2	12.29610	.1087829	.1132742	9.490786	.0124272	.004497
#3	12.04542	.1043976	.1126829	9.971120	.0145649	-.002423

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165909BS Acquired: 01/09/2025 16:52:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS909 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0211942	.1634484	F 1.071073	.0115993	.2068504	.2100131
Stddev	.0006179	.0036203	.015293	.0005867	.0141135	.0011825
%RSD	2.915210	2.214930	1.427841	5.057677	6.823033	.5630734
#1	.0219061	.1595632	1.063028	.0110168	.1981477	.2103334
#2	.0208791	.1667272	1.088709	.0121900	.1992691	.2110025
#3	.0207974	.1640549	1.061480	.0115913	.2231344	.2087035

Elem	Li6707
Units	ppm
Avg	.0254467
Stddev	.0052585
%RSD	20.66479
#1	.0193810
#2	.0287193
#3	.0282397

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2169.899	19822.96	878.7525	1627.126	2431.698
Stddev	4.881	57.48	4.5173	6.251	2.091
%RSD	.2249492	.2899591	.5140570	.3841989	.0859703
#1	2165.352	19806.94	877.0242	1624.303	2432.409
#2	2175.057	19886.76	875.3545	1634.291	2433.341
#3	2169.289	19775.20	883.8788	1622.785	2429.345

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165921BL Acquired: 01/09/2025 16:57:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS921 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003882	.0017381	-.004877	-.000583	.0010360	.0044804	-.003032
Stddev	.002465	.0004361	.002423	.005320	.0026236	.0485810	.003537
%RSD	63.51138	25.08771	49.67834	912.9301	253.2457	1084.312	116.6559
#1	-.004848	.0013403	-.004502	-.006165	.0020613	-.013830	-.004035
#2	-.001080	.0016697	-.002664	-.000012	.0029921	-.032285	-.005960
#3	-.005718	.0022044	-.007467	.004429	-.001945	.059556	.000898

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000104	.0000880	.0089798	-.000075	.0002012	-.000570	.0412723
Stddev	.000163	.0001334	.0426853	.000538	.0001145	.000473	.0777781
%RSD	156.9853	151.6782	475.3471	714.7911	56.93652	83.05175	188.4509
#1	.000014	.0002419	.0297028	.000264	.0000941	-.000595	.0568737
#2	-.000290	.0000174	-.040111	-.000696	.0001874	-.000084	.1100672
#3	-.000035	.0000047	.037348	.000206	.0003220	-.001030	-.043124

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038069	.3097780	.0003570	-.001575	.0259026	.0005727	-.000418
Stddev	.0037149	.1873982	.0006572	.001453	.0258599	.0009572	.000293
%RSD	97.58125	60.49437	184.0874	92.25028	99.83509	167.1490	70.12578
#1	.0041900	.0965480	-.000170	-.003220	-.000706	.0014368	-.000628
#2	-.000085	.4482963	.000148	-.000469	.027471	.0007375	-.000083
#3	.007315	.3844897	.001093	-.001035	.050943	-.000456	-.000544

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.406246	-.002067	.0012164	-.000073	-.000310	.0011470	-.000774
Stddev	.093780	.002721	.0053716	.000743	.003086	.0044531	.000683
%RSD	23.08448	131.6578	441.6028	1021.163	995.8342	388.2451	88.23435
#1	-.423256	-.001963	-.003361	-.000930	.003130	.0044469	.000014
#2	-.490356	.000601	.007130	.000314	-.002834	.0029120	-.001151
#3	-.305125	-.004839	-.000119	.000397	-.001226	-.003918	-.001187

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165921BL Acquired: 01/09/2025 16:57:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS921 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0023647	.0002541	-.005152
Stddev	.0018923	.0002416	.010925
%RSD	80.02146	95.09007	212.0603
#1	.0001846	.0000051	.007460
#2	.0033279	.0004876	-.011212
#3	.0035817	.0002697	-.011702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2193.596	19978.56	879.1354	1637.653	2573.629
Stddev	13.811	117.88	2.6339	12.760	12.033
%RSD	.6295914	.5900196	.2996050	.7791661	.4675393
#1	2206.581	20005.63	881.6546	1645.714	2581.690
#2	2195.120	19849.50	876.4000	1622.942	2579.400
#3	2179.086	20080.54	879.3515	1644.305	2559.798

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165920BL Acquired: 01/09/2025 17:05:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS920 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001522	-.000061	-.001453	-.007319	-.000200	-.037556	-.008279
Stddev	.000970	.001082	.002731	.004612	.002568	.048317	.001255
%RSD	63.75799	1761.798	187.9576	63.01807	1285.667	128.6525	15.16354
#1	-.002639	-.001233	-.002737	-.002217	-.001320	-.012742	-.009183
#2	-.000897	.000899	-.003304	-.011193	.002738	-.093238	-.008809
#3	-.001029	.000150	.001683	-.008547	-.002017	-.006688	-.006846

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000326	-.000005	.0414232	-.001627	.0002109	-.001517	-.029643
Stddev	.000038	.000064	.0617222	.001406	.0004266	.001363	.054418
%RSD	11.55728	1380.645	149.0039	86.41142	202.2611	89.81019	183.5815
#1	-.000367	.000046	.0813780	-.000507	.0004767	-.001282	-.035831
#2	-.000319	.000017	-.029665	-.003204	-.000281	-.000288	.027606
#3	-.000293	-.000077	.072557	-.001169	.000437	-.002983	-.080702

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023162	-.187986	-.000183	-.001265	.0125779	.0014521	-.000307
Stddev	.0092178	.248527	.000188	.000878	.0128653	.0007127	.000946
%RSD	397.9710	132.2053	103.0145	69.44989	102.2854	49.08347	308.0034
#1	-.007677	-.045248	-.000366	-.002119	.0095118	.0016545	.000339
#2	.004140	-.043750	.000010	-.001310	.0266992	.0020417	-.001393
#3	.010486	-.474959	-.000192	-.000365	.0015226	.0006600	.000133

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.227611	-.000285	.0030045	.0010147	-.001246	-.003212	-.001878
Stddev	.305982	.001335	.0015780	.0005116	.006035	.003542	.001921
%RSD	134.4321	467.8985	52.51940	50.41924	484.3282	110.2583	102.3018
#1	-.279028	-.000749	.0047299	.0009392	.002250	.000686	-.001676
#2	.100822	-.001326	.0026489	.0005451	-.008214	-.004091	-.003893
#3	-.504626	.001219	.0016347	.0015599	.002226	-.006231	-.000066

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165920BL Acquired: 01/09/2025 17:05:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS920 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0148009	-.000231	-.014092
Stddev	.0072972	.000390	.002533
%RSD	49.30260	168.7990	17.97436
#1	.0074115	.000192	-.012538
#2	.0149887	-.000577	-.017015
#3	.0220023	-.000308	-.012723

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2174.860	19774.51	891.4364	1639.754	2560.570
Stddev	3.974	85.00	1.6247	7.748	7.910
%RSD	.1827398	.4298247	.1822574	.4724976	.3089051
#1	2171.838	19843.61	891.9333	1641.034	2551.763
#2	2179.362	19679.60	892.7545	1631.446	2567.070
#3	2173.379	19800.32	889.6212	1646.783	2562.876

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165920BS Acquired: 01/09/2025 17:17:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS920 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0232061	.0485544	.0157605	.0548394	.1099297	.3634271
Stddev	.0068468	.0019989	.0015118	.0044506	.0039988	.0249457
%RSD	29.50415	4.116772	9.592172	8.115709	3.637625	6.864030
#1	.0289203	.0462563	.0172227	.0598942	.1055372	.3360798
#2	.0156173	.0495173	.0158552	.0515088	.1133589	.3849356
#3	.0250807	.0498895	.0142036	.0531154	.1108930	.3692659

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4069631	.0102164	.0089096	10.54239	.0200036	.0962355
Stddev	.0021729	.0002893	.0000616	.07477	.0013317	.0003211
%RSD	.5339438	2.831949	.6912646	.7091851	6.657490	.3336715
#1	.4055480	.0105158	.0088541	10.62566	.0215328	.0958808
#2	.4094650	.0101952	.0088990	10.52051	.0193789	.0963194
#3	.4058763	.0099383	.0089759	10.48101	.0190990	.0965063

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0577238	.2397426	.0333567	10.65237	.0732035	.0180644
Stddev	.0018265	.0551615	.0014092	.10279	.0009973	.0011443
%RSD	3.164282	23.00862	4.224681	.9649608	1.362330	6.334276
#1	.0592462	.3034105	.0331900	10.71770	.0737595	.0174501
#2	.0582267	.2095165	.0320384	10.70553	.0737988	.0173585
#3	.0556985	.2063009	.0348419	10.53389	.0720522	.0193846

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.22323	.1082698	.1153596	9.471389	.0154037	F .0004020
Stddev	.12050	.0019250	.0004758	.181029	.0014627	.0020718
%RSD	.9858008	1.777989	.4124309	1.911320	9.496021	515.4012
#1	12.30055	.1098195	.1149937	9.531140	.0164243	-.001543
#2	12.28474	.1088750	.1158975	9.268038	.0137279	.000167
#3	12.08439	.1061149	.1151877	9.614988	.0160589	.002581

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165920BS Acquired: 01/09/2025 17:17:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS920 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0203920	.1633843	F 1.081690	.0115222	.1998532	.2115214
Stddev	.0007444	.0060784	.017899	.0022857	.0029092	.0008896
%RSD	3.650402	3.720284	1.654715	19.83763	1.455666	.4205622
#1	.0199654	.1569499	1.087839	.0100733	.1968239	.2112372
#2	.0199590	.1690295	1.095704	.0103362	.2026252	.2125184
#3	.0212515	.1641735	1.061527	.0141572	.2001105	.2108087

Elem	Li6707
Units	ppm
Avg	F .0169982
Stddev	.0093444
%RSD	54.97293
#1	.0072827
#2	.0177907
#3	.0259210

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2157.894	19634.19	883.3778	1612.302	2417.055
Stddev	7.708	80.51	7.7439	7.081	6.404
%RSD	.3571991	.4100427	.8766208	.4391566	.2649605
#1	2163.527	19643.11	877.7333	1617.500	2421.271
#2	2161.045	19709.86	880.1939	1615.168	2420.209
#3	2149.110	19549.59	892.2061	1604.237	2409.686

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-13 Acquired: 01/09/2025 17:25:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1405368	-.040496	.1798083	.0943624	.0740198	96.82663	.6030966
Stddev	.0019130	.005489	.0036601	.0096456	.0035416	.10028	.0061855
%RSD	1.361237	13.55570	2.035561	10.22186	4.784596	.1035650	1.025624
#1	.1424791	-.041617	.1829367	.0845435	.0709723	96.90058	.5994729
#2	.1386544	-.034532	.1807051	.1038248	.0779052	96.86683	.6102388
#3	.1404769	-.045338	.1757832	.0947188	.0731821	96.71249	.5995783

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053050	.0023735	752.0198	.4182517	.1265238	.9104722	258.3248
Stddev	.0001921	.0003398	3.9120	.0011543	.0021714	.0004341	.6577
%RSD	3.620920	14.31478	.5201933	.2759818	1.716212	.0476799	.2546065
#1	.0052768	.0026087	747.5045	.4195671	.1290026	.9102801	257.5819
#2	.0051286	.0019840	754.3894	.4177805	.1256115	.9109692	258.5595
#3	.0055096	.0025280	754.1655	.4174075	.1249574	.9101672	258.8329

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.396641	256.5107	.2266410	.0070523	1.273974	.4567224	.7133744
Stddev	.029950	.4471	.0011086	.0011046	.017281	.0025805	.0003010
%RSD	.4682173	.1742981	.4891373	15.66263	1.356434	.5650019	.0421944
#1	6.362983	256.2798	.2272617	.0083274	1.256711	.4549919	.7132334
#2	6.420354	257.0261	.2273002	.0063869	1.273938	.4596884	.7131698
#3	6.406585	256.2263	.2253611	.0064428	1.291272	.4554869	.7137201

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.58864	7.153682	-.739494	.0071161	1.697728	9.620147	.0876103
Stddev	.49649	.036338	.006154	.0007724	.008489	.034480	.0022409
%RSD	.9624077	.5079690	.8321959	10.85400	.4999929	.3584141	2.557833
#1	51.01660	7.192421	-.746592	.0079977	1.707234	9.642179	.0851390
#2	51.90758	7.148275	-.735659	.0065587	1.690904	9.637850	.0881819
#3	51.84174	7.120350	-.736230	.0067919	1.695047	9.580411	.0895101

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-13 Acquired: 01/09/2025 17:25:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	24.90940	.2473194	.1059794
Stddev	.04611	.0006895	.0048104
%RSD	.1851008	.2788028	4.538987
#1	24.85773	.2467882	.1038311
#2	24.94637	.2480987	.1114896
#3	24.92408	.2470713	.1026175

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2257.382	20395.83	977.5412	1697.595	1877.109
Stddev	3.702	61.05	4.4119	7.960	7.656
%RSD	.1640088	.2993498	.4513298	.4688925	.4078474
#1	2253.140	20436.50	976.9930	1700.256	1868.528
#2	2259.038	20325.62	973.4289	1688.646	1879.558
#3	2259.967	20425.36	982.2016	1703.883	1883.240

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165921BS Acquired: 01/09/2025 17:29:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS921 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0206465	.0505926	.0146884	.0562970	.1044248	.3608336
Stddev	.0056645	.0022349	.0007359	.0039098	.0037413	.0246911
%RSD	27.43574	4.417534	5.010392	6.944986	3.582784	6.842789
#1	.0152497	.0529262	.0154402	.0553437	.1040692	.3491239
#2	.0265453	.0503803	.0146557	.0605953	.1008740	.3441759
#3	.0201444	.0484715	.0139694	.0529519	.1083313	.3892009

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3972624	.0100177	.0084749	10.40639	.0198104	.0937702
Stddev	.0037612	.0001247	.0000434	.11330	.0005493	.0007224
%RSD	.9467755	1.244481	.5118324	1.088726	2.772519	.7703461
#1	.4013846	.0101075	.0084477	10.53630	.0204044	.0929406
#2	.3940171	.0098753	.0084520	10.32808	.0193209	.0942599
#3	.3963854	.0100702	.0085249	10.35480	.0197058	.0941101

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0566352	.1925721	.0297282	10.46160	.0702786	.0185417
Stddev	.0014853	.0680476	.0014576	.31701	.0008350	.0007850
%RSD	2.622645	35.33615	4.903215	3.030244	1.188106	4.233724
#1	.0556644	.2626770	.0285753	10.32288	.0694066	.0191778
#2	.0583451	.1267878	.0292425	10.23760	.0703586	.0187830
#3	.0558962	.1882515	.0313666	10.82433	.0710708	.0176644

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.16062	.1059323	.1116625	9.473978	.0168639	F -.004053
Stddev	.18664	.0025370	.0021037	.155042	.0016616	.008662
%RSD	1.534752	2.394907	1.884020	1.636503	9.853027	213.7051
#1	12.37607	.1088392	.1132338	9.544165	.0149676	.002271
#2	12.04860	.1041644	.1124811	9.581514	.0180650	-.000505
#3	12.05720	.1047933	.1092724	9.296254	.0175591	-.013927

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: PB165921BS Acquired: 01/09/2025 17:29:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS921 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198371	.1604543	F 1.062199	.0099435	.2052998	.2069717
Stddev	.0008847	.0068870	.017760	.0011737	.0040091	.0028355
%RSD	4.459798	4.292179	1.671959	11.80341	1.952805	1.370004
#1	.0191053	.1667013	1.082378	.0105892	.2032509	.2101843
#2	.0195858	.1530691	1.048947	.0106526	.2099194	.2059126
#3	.0208203	.1615927	1.055272	.0085888	.2027293	.2048181

Elem	Li6707
Units	ppm
Avg	.0252589
Stddev	.0033128
%RSD	13.11552
#1	.0274611
#2	.0268666
#3	.0214490

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2145.652	19526.72	873.1131	1612.164	2420.647
Stddev	9.446	154.60	8.3421	9.089	9.047
%RSD	.4402475	.7917388	.9554489	.5637740	.3737494
#1	2134.760	19684.59	863.6576	1610.558	2410.261
#2	2151.597	19375.61	876.2485	1603.985	2424.868
#3	2150.599	19519.96	879.4333	1621.949	2426.812

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-14 Acquired: 01/09/2025 17:33:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1421386	-.039334	.1829495	.0901336	.0737400	98.61835	.6200739
Stddev	.0060424	.003692	.0038555	.0106302	.0023328	.66854	.0058647
%RSD	4.251082	9.385706	2.107401	11.79379	3.163581	.6779036	.9458017
#1	.1399432	-.042544	.1793628	.0803972	.0715153	98.42184	.6170726
#2	.1375007	-.035300	.1870268	.0885287	.0761677	99.36312	.6268318
#3	.1489718	-.040160	.1824589	.1014750	.0735372	98.07009	.6163173

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054713	.0024688	769.6416	.4236967	.1323826	.9242676	260.9179
Stddev	.0001321	.0000826	5.5180	.0011367	.0026329	.0051519	1.4695
%RSD	2.414736	3.347368	.7169521	.2682855	1.988824	.5574053	.5631936
#1	.0054380	.0025060	766.7872	.4235785	.1296836	.9276999	260.2868
#2	.0053591	.0023741	776.0021	.4248879	.1325205	.9267593	262.5975
#3	.0056170	.0025263	766.1355	.4226237	.1349439	.9183435	259.8694

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.507775	261.0476	.2324976	.0058273	1.257863	.4604029	.7229731
Stddev	.030352	1.6932	.0022534	.0015575	.018799	.0022792	.0013092
%RSD	.4663929	.6486137	.9692245	26.72816	1.494550	.4950368	.1810878
#1	6.489473	260.1053	.2307210	.0040604	1.236784	.4626311	.7244434
#2	6.542810	263.0023	.2317395	.0064205	1.263909	.4605017	.7225427
#3	6.491041	260.0351	.2350323	.0070012	1.272895	.4580760	.7219333

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.61663	7.346747	-.736000	.0063929	1.732708	10.32593	.0871264
Stddev	.41539	.060469	.009877	.0006192	.015411	.04198	.0015561
%RSD	.7894735	.8230730	1.341967	9.685734	.8893954	.4065416	1.786041
#1	52.38916	7.281146	-.745464	.0071037	1.723610	10.36313	.0880301
#2	53.09608	7.358838	-.725757	.0059708	1.724011	10.33424	.0853295
#3	52.36466	7.400257	-.736778	.0061041	1.750501	10.28042	.0880194

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-14 Acquired: 01/09/2025 17:33:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	25.28914	.2532890	.1113226
Stddev	.12666	.0015109	.0053978
%RSD	.5008354	.5965257	4.848769
#1	25.20134	.2532786	.1157202
#2	25.43434	.2548051	.1052987
#3	25.23176	.2517833	.1129490

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2243.995	20312.22	977.5042	1693.296	1860.734
Stddev	13.978	63.04	5.0912	4.562	15.808
%RSD	.6229053	.3103314	.5208340	.2694329	.8495762
#1	2255.380	20384.94	979.2577	1698.415	1874.140
#2	2248.211	20273.30	971.7680	1689.659	1864.760
#3	2228.395	20278.40	981.4869	1691.813	1843.302

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-13LX5 Acquired: 01/09/2025 17:37:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0237578	.0062923	.0411525	-.010931	.0136929	22.95482	.1397038
Stddev	.0019186	.0025008	.0020213	.001194	.0028630	.11160	.0051691
%RSD	8.075753	39.74391	4.911607	10.92407	20.90867	.4861656	3.700059
#1	.0259437	.0082476	.0419235	-.011800	.0169975	22.99803	.1445298
#2	.0223526	.0034744	.0388592	-.011424	.0121219	23.03835	.1342490
#3	.0229770	.0071550	.0426747	-.009570	.0119594	22.82807	.1403325

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013252	.0003398	180.3248	.0982012	.0459176	.2297641	61.48963
Stddev	.0002414	.0000917	.7564	.0010890	.0013311	.0017404	.04097
%RSD	18.21313	26.98357	.4194862	1.108971	2.898836	.7574789	.0666318
#1	.0014998	.0003032	180.9041	.0971893	.0468303	.2317621	61.52592
#2	.0010498	.0002721	180.6012	.0980606	.0443903	.2285775	61.44520
#3	.0014261	.0004441	179.4690	.0993537	.0465323	.2289528	61.49777

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.551432	62.98605	.0434478	.0021544	.3411417	.1091802	.1653096
Stddev	.018005	.73192	.0012319	.0002569	.0125214	.0015993	.0027962
%RSD	1.160548	1.162029	2.835292	11.92383	3.670428	1.464804	1.691473
#1	1.559494	63.28137	.0448467	.0024289	.3409720	.1104902	.1640446
#2	1.563997	63.52417	.0425251	.0019199	.3287060	.1073980	.1685147
#3	1.530804	62.15261	.0429717	.0021144	.3537470	.1096525	.1633695

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.15796	1.355524	-.192177	.0064537	.3327019	2.337203	.0222775
Stddev	.29410	.010167	.002259	.0006004	.0058212	.011632	.0008066
%RSD	2.635743	.7500178	1.175511	9.303238	1.749679	.4976966	3.620788
#1	11.47555	1.365603	-.191827	.0070666	.3388358	2.347285	.0228076
#2	11.10329	1.355696	-.190113	.0058667	.3320158	2.324476	.0213492
#3	10.89503	1.345272	-.194591	.0064276	.3272542	2.339847	.0226757

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-13LX5 Acquired: 01/09/2025 17:37:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	5.799054	.0580862	.0205785
Stddev	.017926	.0009873	.0015413
%RSD	.3091159	1.699708	7.490111
#1	5.804837	.0585945	.0202483
#2	5.813375	.0587158	.0192290
#3	5.778951	.0569484	.0222582

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2131.054	19441.04	883.5206	1589.125	2148.526
Stddev	15.296	23.97	5.6688	11.097	16.537
%RSD	.7177437	.1233103	.6416200	.6982796	.7697114
#1	2115.659	19417.22	877.0442	1592.408	2130.307
#2	2146.248	19440.73	885.9353	1576.757	2162.590
#3	2131.253	19465.16	887.5822	1598.210	2152.679

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-15 Acquired: 01/09/2025 17:41:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2349120	.0487766	.2249754	.2521197	.2379424	103.2652	4.031375
Stddev	.0068834	.0010176	.0023222	.0060939	.0039358	.2366	.007425
%RSD	2.930193	2.086353	1.032220	2.417071	1.654102	.2291007	.1841765
#1	.2389868	.0478336	.2268942	.2530902	.2349027	103.3949	4.039123
#2	.2269646	.0498553	.2256382	.2576702	.2365364	102.9921	4.030680
#3	.2387846	.0486408	.2223938	.2455988	.2423881	103.4085	4.024323

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0916918	.0986765	765.5121	.7694984	1.114025	1.348883	266.2765
Stddev	.0005919	.0000507	1.7381	.0013972	.001760	.010199	.7973
%RSD	.6455465	.0513710	.2270446	.1815762	.1579403	.7560731	.2994431
#1	.0922133	.0986564	766.9440	.7681882	1.114823	1.360657	266.1515
#2	.0910485	.0986389	763.5784	.7693382	1.112008	1.343173	265.5490
#3	.0918137	.0987341	766.0140	.7709689	1.115245	1.342818	267.1289

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.423697	263.7494	1.214054	.0710227	1.248012	1.358181	1.523638
Stddev	.021779	.6386	.000437	.0013198	.012925	.008171	.008011
%RSD	.2933743	.2421129	.0360166	1.858231	1.035612	.6016455	.5257608
#1	7.419072	263.1626	1.213641	.0696883	1.262437	1.365880	1.521844
#2	7.404602	263.6562	1.214009	.0723273	1.237486	1.349608	1.516676
#3	7.447417	264.4295	1.214512	.0710524	1.244113	1.359055	1.532393

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	52.57973	7.360100	-.759282	.0069700	1.767296	10.78377	.0903314
Stddev	.33376	.010762	.008725	.0001126	.011395	.07869	.0005827
%RSD	.6347601	.1462161	1.149172	1.614761	.6447980	.7296764	.6450523
#1	52.43786	7.348618	-.763992	.0070399	1.761404	10.87386	.0906236
#2	52.96098	7.361725	-.749214	.0068402	1.760053	10.74895	.0896604
#3	52.34034	7.369957	-.764642	.0070300	1.780431	10.72851	.0907101

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-15 Acquired: 01/09/2025 17:41:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN39S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	25.63230	.2541240	.1092324
Stddev	.04769	.0006144	.0020551
%RSD	.1860435	.2417760	1.881434
#1	25.62682	.2538347	.1115783
#2	25.58759	.2537077	.1083690
#3	25.68249	.2548297	.1077498

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2262.020	20684.82	975.3992	1701.104	1874.626
Stddev	1.300	36.58	8.9533	12.156	1.733
%RSD	.0574723	.1768469	.9179111	.7145781	.0924244
#1	2263.456	20691.76	965.4345	1699.557	1873.665
#2	2260.923	20717.43	982.7668	1713.960	1876.626
#3	2261.680	20645.27	977.9963	1689.797	1873.588

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-05 Acquired: 01/09/2025 17:44:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1642387	-.026182	1.400433	.1155399	.0450051	97.15752	1.904022
Stddev	.0064575	.000295	.003645	.0078383	.0023648	.33465	.007877
%RSD	3.931767	1.125914	.2602577	6.784072	5.254520	.3444440	.4137136
#1	.1677343	-.025884	1.404179	.1231485	.0425753	97.45842	1.895119
#2	.1681949	-.026188	1.396898	.1159808	.0451410	97.21704	1.906863
#3	.1567870	-.026474	1.400224	.1074905	.0472990	96.79710	1.910085

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0090078	.0102150	73.11051	.1348605	.0570252	.2270216	214.7577
Stddev	.0005263	.0001716	.06378	.0005621	.0008140	.0031793	.5032
%RSD	5.842687	1.679637	.0872373	.4168096	1.427535	1.400447	.2343039
#1	.0087302	.0103308	73.07809	.1354358	.0563114	.2258752	215.2705
#2	.0096148	.0100179	73.06946	.1348331	.0568524	.2306152	214.7378
#3	.0086784	.0102964	73.18399	.1343126	.0579118	.2245746	214.2647

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.73151	28.84547	.1826160	.0076266	.6623428	.2041708	1.467487
Stddev	.01259	.50940	.0004634	.0007914	.0225171	.0018151	.007980
%RSD	.0752457	1.765964	.2537797	10.37718	3.399614	.8889985	.5438066
#1	16.72903	29.17423	.1822209	.0069716	.6509691	.2025154	1.462615
#2	16.72035	29.10350	.1831261	.0085060	.6882781	.2061117	1.476697
#3	16.74516	28.25869	.1825011	.0074023	.6477812	.2038852	1.463150

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.040927	5.945387	-.683737	.0100615	1.849213	13.94962	.0750139
Stddev	.301737	.009625	.010163	.0001162	.006339	.14281	.0019697
%RSD	4.994885	.1618870	1.486390	1.154527	.3427704	1.023727	2.625733
#1	5.709150	5.941123	-.683333	.0101043	1.841922	13.85782	.0735380
#2	6.114684	5.956407	-.694096	.0099300	1.853407	14.11415	.0772505
#3	6.298948	5.938630	-.673782	.0101501	1.852311	13.87688	.0742533

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-05 Acquired: 01/09/2025 17:44:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5704119	-.034298	.0866733
Stddev	.0118020	.000489	.0068398
%RSD	2.069024	1.424917	7.891498
#1	.5644916	-.033740	.0792718
#2	.5840021	-.034646	.0879872
#3	.5627419	-.034509	.0927608

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2966.596	26776.18	1216.082	2219.721	2305.568
Stddev	6.132	91.66	7.838	3.536	3.046
%RSD	.2067037	.3423062	.6445424	.1592795	.1321181
#1	2972.344	26670.36	1216.973	2216.586	2308.698
#2	2960.141	26827.43	1207.836	2219.025	2302.614
#3	2967.303	26830.75	1223.436	2223.553	2305.391

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-06 Acquired: 01/09/2025 17:48:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1651318	-.022885	1.395006	.1180786	.0434176	96.25190	1.908956
Stddev	.0053833	.003737	.001351	.0031832	.0057830	.30887	.002067
%RSD	3.260003	16.33016	.0968755	2.695861	13.31937	.3209002	.1082658
#1	.1677186	-.024901	1.395430	.1210719	.0456978	96.22013	1.906744
#2	.1687334	-.025181	1.396096	.1184294	.0368421	96.57543	1.910838
#3	.1589434	-.018573	1.393494	.1147345	.0477129	95.96015	1.909286

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089539	.0101837	72.83534	.1340253	.0558886	.2258180	213.3060
Stddev	.0003873	.0000861	.12719	.0008596	.0008811	.0022368	1.2188
%RSD	4.325147	.8459786	.1746263	.6413860	1.576516	.9905228	.5714012
#1	.0093795	.0102694	72.86387	.1335024	.0553257	.2283647	213.9890
#2	.0086222	.0100971	72.94584	.1350175	.0554361	.2249176	214.0302
#3	.0088601	.0101845	72.69631	.1335562	.0569040	.2241717	211.8988

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.59819	28.53026	.1814875	.0097925	.6562807	.2053459	1.454911
Stddev	.03542	.17235	.0010706	.0004522	.0039333	.0012029	.003763
%RSD	.2133765	.6041004	.5898737	4.617301	.5993324	.5858105	.2586627
#1	16.58997	28.33155	.1806287	.0099597	.6607238	.2066805	1.455449
#2	16.63699	28.63918	.1826869	.0101371	.6532435	.2050122	1.450907
#3	16.56761	28.62005	.1811468	.0092805	.6548749	.2043451	1.458376

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.952891	5.908843	-.691915	.0095622	1.836911	14.01162	.0737072
Stddev	.061281	.005955	.012009	.0017186	.008233	.09511	.0013572
%RSD	1.029437	.1007891	1.735572	17.97301	.4481962	.6787714	1.841412
#1	5.959780	5.914022	-.705643	.0102099	1.844072	14.11607	.0743215
#2	5.888456	5.910171	-.683360	.0076139	1.827915	13.98878	.0746487
#3	6.010436	5.902335	-.686741	.0108629	1.838745	13.93002	.0721514

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-06 Acquired: 01/09/2025 17:48:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5718507	-.034450	.0864203
Stddev	.0064953	.000672	.0091696
%RSD	1.135834	1.950135	10.61042
#1	.5675794	-.034908	.0771910
#2	.5793254	-.034763	.0865410
#3	.5686473	-.033678	.0955289

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2963.517	26830.92	1217.633	2239.689	2305.385
Stddev	.346	69.10	5.674	10.109	.877
%RSD	.0116679	.2575565	.4660044	.4513712	.0380603
#1	2963.887	26906.56	1213.090	2251.356	2306.273
#2	2963.460	26771.08	1215.817	2234.170	2304.519
#3	2963.203	26815.14	1223.993	2233.540	2305.363

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-05LX5 Acquired: 01/09/2025 17:52:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0347352	-.005499	.2801995	.0237493	.0078294	25.29570	.4923912
Stddev	.0085122	.002145	.0033463	.0028385	.0015022	.36590	.0036280
%RSD	24.50598	38.99553	1.194267	11.95182	19.18662	1.446507	.7368132
#1	.0281905	-.007925	.2839023	.0254233	.0089124	24.87427	.4883333
#2	.0443584	-.003856	.2773916	.0253526	.0061145	25.48022	.4953215
#3	.0316567	-.004716	.2793045	.0204720	.0084613	25.53260	.4935187

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023172	.0018608	19.10487	.0339558	.0108501	.0618833	55.44451
Stddev	.0002458	.0001409	.12468	.0019607	.0003260	.0020358	.67029
%RSD	10.60715	7.574030	.6526122	5.774345	3.004796	3.289694	1.208934
#1	.0025890	.0020091	18.96091	.0337160	.0110870	.0602281	54.67796
#2	.0021107	.0017287	19.17611	.0360254	.0104783	.0641564	55.73509
#3	.0022518	.0018445	19.17761	.0321260	.0109849	.0612654	55.92048

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.381239	7.831958	.0350386	.0016044	.1443822	.0538724	.3756883
Stddev	.052027	.061470	.0018878	.0006175	.0168977	.0008044	.0004287
%RSD	1.187501	.7848672	5.387650	38.48740	11.70343	1.493226	.1141057
#1	4.321863	7.885813	.0370972	.0015127	.1623747	.0530120	.3760881
#2	4.403007	7.845073	.0333886	.0010378	.1288488	.0546058	.3757413
#3	4.418847	7.764988	.0346299	.0022625	.1419231	.0539994	.3752357

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.111280	1.131833	-.191971	.0019968	.3506116	3.705681	.0285534
Stddev	.252500	.007617	.004068	.0002574	.0090634	.026855	.0021077
%RSD	22.72155	.6729630	2.119042	12.88976	2.585027	.7246904	7.381556
#1	1.191285	1.129887	-.194617	.0019109	.3450808	3.674719	.0305877
#2	1.314085	1.140234	-.194008	.0022862	.3610713	3.722639	.0286933
#3	.828469	1.125379	-.187287	.0017934	.3456826	3.719685	.0263793

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-05LX5 Acquired: 01/09/2025 17:52:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.1492344	-.007895	.0063619
Stddev	.0112517	.000505	.0040084
%RSD	7.539612	6.401897	63.00612
#1	.1421603	-.007336	.0096139
#2	.1622090	-.008318	.0075883
#3	.1433338	-.008032	.0018836

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2353.293	21279.84	953.6960	1767.545	2443.785
Stddev	3.973	70.89	6.8140	2.447	3.219
%RSD	.1688093	.3331452	.7144798	.1384614	.1317224
#1	2355.361	21332.46	961.5455	1769.893	2447.477
#2	2355.804	21199.23	950.2394	1767.732	2441.568
#3	2348.713	21307.84	949.3030	1765.009	2442.309

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-07 Acquired: 01/09/2025 17:56:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2477609	.0633621	1.414343	.2454329	.1831502	98.24755	4.914152
Stddev	.0046193	.0007356	.000553	.0077486	.0015583	.00660	.027633
%RSD	1.864397	1.160890	.0390869	3.157105	.8508479	.0067188	.5623096
#1	.2470994	.0637785	1.414731	.2379234	.1849340	98.24525	4.885717
#2	.2435081	.0625128	1.413710	.2534002	.1824629	98.25499	4.915833
#3	.2526753	.0637950	1.414587	.2449750	.1820537	98.24240	4.940906

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0837831	.1011820	72.06328	.4473919	1.014237	.6278683	212.7464
Stddev	.0004122	.0004727	.20911	.0012352	.001756	.0042856	.5081
%RSD	.4919467	.4671247	.2901749	.2760944	.1730999	.6825595	.2388213
#1	.0841957	.1017195	71.83962	.4486166	1.015900	.6323806	212.4561
#2	.0833714	.1008313	72.09631	.4461465	1.014410	.6238527	212.4501
#3	.0837823	.1009951	72.25391	.4474125	1.012402	.6273715	213.3331

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.13918	28.20488	1.143193	.0655275	.6657575	.9827188	2.118825
Stddev	.01043	.38460	.002777	.0010391	.0103333	.0061540	.010981
%RSD	.0608580	1.363592	.2429088	1.585791	1.552112	.6262181	.5182458
#1	17.14702	27.85477	1.146201	.0656584	.6725058	.9888410	2.128458
#2	17.12734	28.61655	1.140727	.0664950	.6538615	.9765336	2.106869
#3	17.14318	28.14331	1.142651	.0644292	.6709053	.9827819	2.121150

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.975700	5.780239	-.682202	.0088027	1.790541	13.70511	.0732960
Stddev	.194711	.020746	.012638	.0006333	.000968	.10205	.0003149
%RSD	3.258385	.3589192	1.852474	7.194005	.0540859	.7446151	.4296694
#1	6.031868	5.803438	-.695279	.0091035	1.791644	13.80458	.0731812
#2	5.759079	5.773814	-.670055	.0080751	1.789827	13.60066	.0736522
#3	6.136154	5.763466	-.681273	.0092295	1.790153	13.71009	.0730545

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-07 Acquired: 01/09/2025 17:56:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP0S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5688385	-.035493	.0891726
Stddev	.0058657	.000625	.0052609
%RSD	1.031167	1.762047	5.899722
#1	.5750487	-.035557	.0890550
#2	.5633921	-.034838	.0944913
#3	.5680745	-.036084	.0839714

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2907.512	26395.77	1214.685	2208.494	2278.058
Stddev	4.220	129.69	2.231	8.805	6.497
%RSD	.1451473	.4913189	.1836352	.3986987	.2852133
#1	2904.267	26534.32	1215.332	2218.656	2271.111
#2	2905.985	26277.28	1216.521	2203.697	2279.078
#3	2912.283	26375.73	1212.203	2203.129	2283.985

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-10 Acquired: 01/09/2025 18:00:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0886052	.0088446	3.067077	.0182320	.0274410	43.07192
Stddev	.0046703	.0043540	.007864	.0081541	.0016195	.13471
%RSD	5.270890	49.22774	.2564028	44.72391	5.901688	.3127454
#1	.0911531	.0038772	3.068870	.0238272	.0293015	43.01740
#2	.0914474	.0106568	3.073890	.0219926	.0266738	42.97302
#3	.0832151	.0119998	3.058472	.0088763	.0263477	43.22534

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.760611	.0046358	.0136394	F 999.1472	.1572366	.0627290
Stddev	.009957	.0003049	.0001376	3.5715	.0011416	.0001619
%RSD	.5655648	6.577735	1.008672	.3574598	.7260659	.2581091
#1	1.770130	.0048166	.0135584	1002.726	.1559210	.0629160
#2	1.750266	.0042838	.0137983	995.583	.1579674	.0626390
#3	1.761437	.0048071	.0135616	999.132	.1578213	.0626322

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4019241	136.6099	9.105885	139.9891	.1911337	.0055236
Stddev	.0041763	.4478	.021963	.2932	.0024223	.0006722
%RSD	1.039084	.3277867	.2411952	.2094357	1.267317	12.16900
#1	.4064662	137.0801	9.131242	140.3110	.1938038	.0059661
#2	.3982498	136.1885	9.093542	139.9189	.1905197	.0047501
#3	.4010564	136.5611	9.092870	139.7374	.1890774	.0058546

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.584957	.1149381	2.757520	5.040376	8.646428	-.346268
Stddev	.017773	.0022263	.013158	.241642	.020406	.004372
%RSD	1.121378	1.936976	.4771543	4.794130	.2360016	1.262479
#1	1.598015	.1168242	2.752749	5.306100	8.669044	-.349730
#2	1.564716	.1124823	2.772398	4.833799	8.629394	-.341356
#3	1.592140	.1155080	2.747414	4.981230	8.640846	-.347718

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-10 Acquired: 01/09/2025 18:00:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0142154	6.919465	8.425493	.1428336	.5595319	.8805182
Stddev	.0007717	.015906	.098416	.0010724	.0085920	.0029806
%RSD	5.428977	.2298736	1.168079	.7508253	1.535568	.3385084
#1	.0150925	6.933760	8.518594	.1419598	.5510397	.8801545
#2	.0139129	6.902330	8.322508	.1440304	.5593356	.8777360
#3	.0136407	6.922305	8.435378	.1425106	.5682204	.8836639

Elem	Li6707
Units	ppm
Avg	.0364268
Stddev	.0082558
%RSD	22.66408
#1	.0376388
#2	.0440096
#3	.0276320

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2200.283	19907.03	947.6892	1658.316	1919.439
Stddev	4.725	60.96	9.7156	7.045	4.564
%RSD	.2147271	.3062408	1.025191	.4248544	.2377585
#1	2195.081	19960.60	937.4188	1662.819	1915.926
#2	2201.460	19840.70	956.7337	1650.197	1917.792
#3	2204.307	19919.80	948.9150	1661.932	1924.597

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-11 Acquired: 01/09/2025 18:03:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0881235	.0070772	3.079141	.0119055	.0274557	42.06735
Stddev	.0024979	.0036392	.042467	.0051069	.0024699	.61130
%RSD	2.834494	51.42107	1.379191	42.89497	8.995899	1.453141
#1	.0885063	.0073618	3.076509	.0175835	.0278232	41.40734
#2	.0904079	.0033041	3.122863	.0104451	.0297213	42.18064
#3	.0854564	.0105658	3.038052	.0076879	.0248227	42.61409

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.733593	.0046863	.0138766	F 981.2836	.1575956	.0641252
Stddev	.022863	.0000733	.0003624	13.8067	.0009232	.0023453
%RSD	1.318845	1.564060	2.611816	1.407008	.5858288	3.657417
#1	1.708596	.0046893	.0139053	966.6069	.1571896	.0643201
#2	1.738736	.0047580	.0142238	983.2304	.1586522	.0663670
#3	1.753447	.0046115	.0135006	994.0137	.1569449	.0616885

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3943390	133.2340	8.863753	136.9925	.1923685	.0056888
Stddev	.0046874	1.5595	.128544	2.6272	.0038976	.0010826
%RSD	1.188668	1.170531	1.450220	1.917802	2.026139	19.02960
#1	.3895824	131.6024	8.718875	134.0118	.1921635	.0050239
#2	.3944806	133.3899	8.908242	137.9942	.1963646	.0069380
#3	.3989539	134.7097	8.964143	138.9716	.1885773	.0051046

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.544417	.1143698	2.757865	5.001011	8.672028	-.333712
Stddev	.027798	.0022538	.016247	.164175	.128520	.009812
%RSD	1.799927	1.970604	.5891176	3.282832	1.482012	2.940408
#1	1.522607	.1120019	2.739105	4.879577	8.672114	-.322431
#2	1.575718	.1146185	2.767079	4.935659	8.800505	-.338438
#3	1.534926	.1164888	2.767411	5.187798	8.543464	-.340267

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-11 Acquired: 01/09/2025 18:03:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0131205	6.990709	8.327422	.1430722	.5334215	.8606774
Stddev	.0010624	.102244	.114902	.0022848	.0094991	.0118523
%RSD	8.097656	1.462566	1.379801	1.596952	1.780789	1.377088
#1	.0136639	6.976646	8.204213	.1425288	.5241556	.8481510
#2	.0138014	7.099257	8.346400	.1455797	.5329712	.8621663
#3	.0118963	6.896225	8.431654	.1411081	.5431378	.8717149

Elem	Li6707
Units	ppm
Avg	.0347696
Stddev	.0100040
%RSD	28.77233
#1	.0240974
#2	.0362770
#3	.0439344

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2181.651	19727.08	959.9069	1644.060	1901.435
Stddev	28.765	122.89	13.7828	11.612	28.399
%RSD	1.318478	.6229616	1.435846	.7063125	1.493556
#1	2188.067	19868.56	975.4193	1657.104	1904.802
#2	2150.220	19646.81	955.2311	1634.850	1871.503
#3	2206.666	19665.88	949.0702	1640.226	1928.001

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-10LX5 Acquired: 01/09/2025 18:07:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0172958	.0172856	.6023024	-.026690	.0021401	9.468699	.3751710
Stddev	.0029580	.0028156	.0014110	.008673	.0005300	.035318	.0032783
%RSD	17.10239	16.28856	.2342680	32.49526	24.76717	.3729984	.8738223
#1	.0139708	.0162422	.6037256	-.034545	.0023254	9.499691	.3715015
#2	.0196351	.0151407	.6022778	-.028143	.0025525	9.430247	.3778111
#3	.0182814	.0204740	.6009039	-.017382	.0015423	9.476160	.3762005

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007420	.0024992	219.7518	.0337105	.0370873	.0946964	29.93386
Stddev	.0002560	.0001793	.7334	.0011881	.0010077	.0016011	.13798
%RSD	34.50183	7.172913	.3337378	3.524353	2.717020	1.690796	.4609581
#1	.0009480	.0026453	218.9097	.0339942	.0381622	.0948603	29.80950
#2	.0008225	.0025531	220.0953	.0347311	.0369357	.0930196	29.90980
#3	.0004554	.0022991	220.2504	.0324063	.0361640	.0962093	30.08229

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.019164	31.78047	.0346260	.0010100	.3904944	.0267076	.6007617
Stddev	.004472	.26653	.0013354	.0006155	.0030494	.0012885	.0033087
%RSD	.2214978	.8386582	3.856743	60.94059	.7809040	4.824636	.5507485
#1	2.015334	31.95069	.0358105	.0015873	.3936747	.0255170	.5995662
#2	2.018079	31.47331	.0348887	.0003623	.3902130	.0265300	.6045020
#3	2.024079	31.91742	.0331787	.0010803	.3875955	.0280757	.5982169

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6451036	1.566724	-.083796	.0087913	1.265749	1.947379	.0291649
Stddev	.2050072	.001242	.002153	.0007236	.006974	.010526	.0005520
%RSD	31.77895	.0792877	2.569846	8.230719	.5509723	.5405391	1.892525
#1	.4352430	1.565511	-.084166	.0091294	1.269482	1.945166	.0286773
#2	.8448855	1.567994	-.081482	.0092840	1.257703	1.938135	.0297641
#3	.6551822	1.566667	-.085741	.0079606	1.270061	1.958836	.0290534

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-10LX5 Acquired: 01/09/2025 18:07:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.1204508	.1928608	-.000399
Stddev	.0089073	.0004871	.006231
%RSD	7.394956	.2525665	1562.181
#1	.1257148	.1926542	-.007285
#2	.1101665	.1925110	.004850
#3	.1254710	.1934171	.001238

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2150.322	19722.56	901.0564	1613.770	2210.218
Stddev	2.540	105.03	.7953	8.898	3.005
%RSD	.1180990	.5325244	.0882668	.5513923	.1359489
#1	2147.392	19701.75	900.5759	1611.070	2207.277
#2	2151.673	19629.50	901.9745	1606.535	2213.283
#3	2151.900	19836.44	900.6189	1623.706	2210.095

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-12 Acquired: 01/09/2025 18:11:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1719410	.0969765	3.093360	.1796653	.1888683	46.62521
Stddev	.0021468	.0024644	.013681	.0067205	.0033102	.66809
%RSD	1.248570	2.541227	.4422662	3.740588	1.752666	1.432898
#1	.1701826	.0997885	3.085906	.1852644	.1871729	47.18693
#2	.1743334	.0959483	3.109149	.1722124	.1926828	45.88642
#3	.1713069	.0951927	3.085026	.1815190	.1867492	46.80229

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.272392	.0938776	.1072200	F 989.0864	.5191638	1.025803
Stddev	.050659	.0020057	.0004184	11.2442	.0032779	.005079
%RSD	.9608327	2.136477	.3902529	1.136828	.6313741	.4951090
#1	5.305740	.0953264	.1071553	998.5205	.5171963	1.023742
#2	5.214098	.0915884	.1076670	976.6440	.5173473	1.031588
#3	5.297340	.0947180	.1068377	992.0946	.5229477	1.022079

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8199525	138.3156	9.926609	139.7797	1.146620	.0711243
Stddev	.0152818	1.6809	.127820	1.1850	.005157	.0013246
%RSD	1.863736	1.215262	1.287650	.8477581	.4497679	1.862313
#1	.8338448	139.9274	10.02075	140.8408	1.145682	.0713863
#2	.8035838	136.5732	9.78109	138.5010	1.152182	.0696882
#3	.8224290	138.4463	9.97799	139.9971	1.141996	.0722982

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.530670	1.036288	3.558316	5.224282	8.592638	-.339868
Stddev	.031279	.018982	.016558	.427688	.043219	.007796
%RSD	2.043474	1.831748	.4653219	8.186531	.5029741	2.293866
#1	1.558471	1.053361	3.570691	5.488705	8.574231	-.348857
#2	1.496802	1.015847	3.564750	4.730855	8.642012	-.335803
#3	1.536736	1.039655	3.539507	5.453287	8.561669	-.334945

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-12 Acquired: 01/09/2025 18:11:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNG5S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0133533	6.940410	8.476252	.1393841	.5543356	.8822704
Stddev	.0007347	.019589	.149006	.0013826	.0149328	.0104056
%RSD	5.502336	.2822491	1.757921	.9919178	2.693813	1.179413
#1	.0125582	6.943861	8.619576	.1404520	.5634815	.8892869
#2	.0140073	6.958044	8.322150	.1398779	.5371036	.8703151
#3	.0134944	6.919324	8.487031	.1378224	.5624218	.8872092

Elem	Li6707
Units	ppm
Avg	.0317438
Stddev	.0022648
%RSD	7.134566
#1	.0341025
#2	.0295864
#3	.0315426

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2213.609	20151.16	953.9260	1666.470	1933.178
Stddev	8.880	99.11	14.3385	2.651	10.428
%RSD	.4011510	.4918477	1.503102	.1590982	.5394348
#1	2218.650	20254.19	941.9358	1667.705	1937.518
#2	2203.356	20142.81	969.8089	1663.427	1921.281
#3	2218.821	20056.49	950.0333	1668.279	1940.736

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV139 Acquired: 01/09/2025 18:15:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV139 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.872400	4.717747	24.08548	4.939544	4.864390	398.7045
Stddev	.032332	.006823	.07755	.003921	.004955	2.8638
%RSD	.6635808	.1446331	.3219936	.0793765	.1018578	.7182866
#1	4.895197	4.713440	24.09796	4.942995	4.863719	399.1169
#2	4.886607	4.714186	24.00244	4.935281	4.859805	401.3398
#3	4.835397	4.725614	24.15604	4.940356	4.869646	395.6568

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.930493	.5040119	2.435057	399.4739	15.09200	2.352474
Stddev	.061911	.0022382	.006535	2.2159	.02735	.007104
%RSD	.6234443	.4440809	.2683653	.5547005	.1811922	.3019619
#1	9.927859	.5014746	2.436540	399.7913	15.06520	2.354872
#2	9.993679	.5057064	2.427908	401.5139	15.09093	2.344482
#3	9.869941	.5048546	2.440723	397.1164	15.11986	2.358068

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.81017	399.7716	14.78738	405.9479	2.450207	1.242162
Stddev	.07005	3.3984	.08971	4.0876	.005149	.001712
%RSD	.4730009	.8500937	.6066833	1.006917	.2101265	.1378117
#1	14.74165	400.8866	14.83410	407.1721	2.451118	1.240271
#2	14.88166	402.4725	14.84409	409.2834	2.444663	1.242608
#3	14.80720	395.9558	14.68395	401.3881	2.454839	1.243606

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	417.9408	2.469740	14.57446	152.7452	4.843843	F 4.161206
Stddev	.9756	.010012	.03770	1.4982	.008632	.012785
%RSD	.2334418	.4053899	.2586865	.9808778	.1781986	.3072420
#1	419.0472	2.462395	14.53153	152.0563	4.853412	4.151154
#2	417.2037	2.481145	14.60221	154.4640	4.836644	4.175596
#3	417.5714	2.465682	14.58963	151.7153	4.841473	4.156869

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV139 Acquired: 01/09/2025 18:15:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV139 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.798088	4.856186	4.815520	4.881259	4.954633	4.730799
Stddev	.010361	.033084	.014888	.016558	.046516	.040364
%RSD	.2159449	.6812748	.3091748	.3392083	.9388397	.8532140
#1	4.796322	4.853017	4.802902	4.885978	4.984143	4.738762
#2	4.788723	4.824801	4.831941	4.862855	4.978744	4.766588
#3	4.809219	4.890741	4.811716	4.894946	4.901011	4.687047

Elem	Li6707
Units	ppm
Avg	4.988215
Stddev	.014472
%RSD	.2901244
#1	4.991452
#2	5.000795
#3	4.972399

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1824.486	17060.58	816.4573	1366.984	1809.906
Stddev	10.765	24.07	3.3984	3.907	11.598
%RSD	.5900388	.1410623	.4162397	.2858332	.6408136
#1	1833.471	17034.16	817.6536	1367.669	1816.821
#2	1827.433	17066.33	812.6224	1362.779	1816.382
#3	1812.554	17081.24	819.0957	1370.503	1796.516

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCB139 Acquired: 01/09/2025 18:18:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB139 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021838	.0029575	.0001107	-.009222	-.002423	-.003375
Stddev	.0060413	.0018789	.0038518	.002971	.003812	.067022
%RSD	276.6378	63.52849	3481.240	32.21595	157.3137	1985.558
#1	-.002956	.0041898	.0022416	-.010886	-.005334	-.039804
#2	.008838	.0038878	.0024261	-.010988	.001892	-.044294
#3	.000670	.0007950	-.004336	-.005792	-.003827	.073971

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001024	-.000409	.0000923	-.033446	-.000577	-.000117
Stddev	.001803	.000219	.0000845	.025333	.000493	.000332
%RSD	176.0287	53.64584	91.52948	75.74213	85.35894	283.9345
#1	.001011	-.000631	.0000923	-.039061	-.000011	-.000197
#2	-.001660	-.000404	.0000078	-.005777	-.000816	.000248
#3	-.002424	-.000192	.0001769	-.055501	-.000906	-.000402

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007311	-.028582	-.001508	.0922854	-.000607	-.001701
Stddev	.0005307	.043135	.005499	.3557963	.000897	.001271
%RSD	72.58938	150.9177	364.5768	385.5391	147.7775	74.73241
#1	.0013031	.002049	-.001565	-.212642	-.001310	-.001704
#2	.0002549	-.009883	.004019	.006306	-.000914	-.000428
#3	.0006351	-.077911	-.006978	.483193	.000403	-.002970

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0457378	.0002490	.0002469	.1014570	.0012669	.0178446
Stddev	.0174353	.0004392	.0001490	.3676903	.0027470	.0034484
%RSD	38.12015	176.4003	60.35948	362.4099	216.8317	19.32481
#1	.0525845	.0001784	.0003990	-.319894	.0034154	.0170239
#2	.0587106	.0007191	.0002406	.357341	.0022135	.0216293
#3	.0259184	-.000151	.0001011	.266924	-.001828	.0148805

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCB139 Acquired: 01/09/2025 18:18:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB139 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006009	.0007861	-.000414	-.000003	-.006238	.0007313
Stddev	.0008981	.0036602	.003822	.001124	.010412	.0002047
%RSD	149.4637	465.6271	923.9946	36642.35	166.8980	27.99701
#1	.0015258	-.001805	.002582	.000523	.000611	.0008240
#2	.0005448	-.000810	-.004718	.000761	-.018220	.0008733
#3	-.000268	.004973	.000895	-.001294	-.001106	.0004966

Elem	Li6707
Units	ppm
Avg	F .0233230
Stddev	.0057291
%RSD	24.56405
#1	.0282642
#2	.0246616
#3	.0170431

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2219.564	20344.80	889.5434	1658.343	2605.924
Stddev	2.182	66.90	6.3917	8.829	7.464
%RSD	.0983220	.3288299	.7185329	.5324254	.2864109
#1	2218.834	20419.89	884.5454	1665.420	2603.140
#2	2222.017	20322.95	887.3394	1661.161	2614.379
#3	2217.840	20291.55	896.7455	1648.449	2600.252

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-18 Acquired: 01/09/2025 18:22:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0392661	.0001442	.1192629	.0289510	.0236050	50.11158	.3742960
Stddev	.0048170	.0023426	.0040687	.0084623	.0095205	.28051	.0044190
%RSD	12.26757	1625.087	3.411519	29.22955	40.33247	.5597647	1.180622
#1	.0363754	-.000348	.1153338	.0240060	.0314444	50.01621	.3740227
#2	.0365961	.002694	.1234581	.0241249	.0263597	50.42734	.3788454
#3	.0448268	-.001913	.1189968	.0387222	.0130109	49.89120	.3700200

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037374	.0011938	539.3794	.0799808	.0655379	.1885028	135.0145
Stddev	.0004600	.0002183	5.1214	.0012785	.0009447	.0012781	1.1892
%RSD	12.30886	18.28721	.9494934	1.598446	1.441469	.6780126	.8807637
#1	.0039935	.0010866	537.4431	.0795978	.0664768	.1879069	134.5427
#2	.0040123	.0010497	545.1866	.0789376	.0645875	.1899700	136.3671
#3	.0032063	.0014450	535.5085	.0814070	.0655492	.1876315	134.1336

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.508148	103.3245	.1427237	.0023704	1.163675	.1339368	.2847872
Stddev	.068442	1.0113	.0019978	.0014650	.053801	.0013767	.0025234
%RSD	1.051633	.9787476	1.399746	61.80494	4.623340	1.027876	.8860624
#1	6.470453	102.9527	.1441578	.0040621	1.166524	.1341346	.2875896
#2	6.587151	104.4690	.1404419	.0015117	1.215994	.1352039	.2826951
#3	6.466841	102.5517	.1435715	.0015375	1.108506	.1324719	.2840768

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.882888	6.527058	-.378038	.0077939	.7306721	9.455641	.0220829
Stddev	.203231	.009716	.003467	.0010192	.0125735	.123386	.0005198
%RSD	4.162108	.1488599	.9170185	13.07729	1.720813	1.304892	2.353765
#1	5.061167	6.516111	-.375659	.0088729	.7329114	9.488718	.0216467
#2	4.925904	6.534657	-.382016	.0076615	.7419754	9.559116	.0226581
#3	4.661592	6.530406	-.376440	.0068474	.7171294	9.319087	.0219440

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-18 Acquired: 01/09/2025 18:22:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8749915	.5661727	.0794331
Stddev	.0050239	.0037345	.0049587
%RSD	.5741637	.6596026	6.242627
#1	.8695797	.5651529	.0743480
#2	.8795068	.5703111	.0796963
#3	.8758879	.5630540	.0842550

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2336.497	21199.03	987.1027	1755.760	2045.679
Stddev	2.633	93.40	9.5160	4.244	2.211
%RSD	.1126874	.4405713	.9640322	.2417201	.1080853
#1	2333.978	21285.94	985.8126	1760.019	2043.152
#2	2339.231	21210.87	978.2976	1755.729	2046.627
#3	2336.282	21100.28	997.1980	1751.531	2047.258

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-19 Acquired: 01/09/2025 18:26:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0385193	-.002545	.1229974	.0243514	.0245029	50.50028	.3763104
Stddev	.0031280	.002285	.0007951	.0149675	.0081400	.00704	.0024015
%RSD	8.120713	89.76546	.6464182	61.46444	33.22034	.0139336	.6381759
#1	.0374707	-.005095	.1239058	.0084647	.0333468	50.49533	.3784559
#2	.0360503	-.001858	.1226581	.0264012	.0173244	50.50834	.3737162
#3	.0420369	-.000683	.1224282	.0381883	.0228377	50.49719	.3767592

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040732	.0012875	543.7534	.0800745	.0644259	.1908765	136.6146
Stddev	.0001778	.0001274	2.4137	.0008596	.0001501	.0008132	.6350
%RSD	4.365621	9.898692	.4438876	1.073464	.2330656	.4260357	.4648352
#1	.0041546	.0014035	544.5927	.0802189	.0644175	.1918107	136.3733
#2	.0038692	.0011511	541.0322	.0808526	.0642802	.1903271	136.1356
#3	.0041957	.0013079	545.6354	.0791518	.0645801	.1904918	137.3350

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.596138	104.2842	.1417730	.0029906	1.193205	.1375324	.2869534
Stddev	.042413	.4956	.0011281	.0013485	.003824	.0003039	.0049556
%RSD	.6429912	.4752397	.7957213	45.09238	.3205158	.2209873	1.726984
#1	6.550826	104.2507	.1418625	.0029170	1.191526	.1377900	.2867538
#2	6.602702	103.8062	.1428537	.0016803	1.190508	.1371972	.2920059
#3	6.634885	104.7957	.1406028	.0043743	1.197582	.1376099	.2821006

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.101482	6.494099	-.394546	.0071766	.7322227	9.600151	.0226649
Stddev	.064178	.015908	.004635	.0008043	.0051501	.037196	.0005704
%RSD	1.258030	.2449675	1.174891	11.20733	.7033476	.3874498	2.516486
#1	5.064547	6.490110	-.399554	.0065061	.7315664	9.640042	.0233232
#2	5.175589	6.480565	-.393680	.0080684	.7376694	9.566419	.0223529
#3	5.064312	6.511623	-.390405	.0069553	.7274322	9.593993	.0223186

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-19 Acquired: 01/09/2025 18:26:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8826534	.5698543	.0773870
Stddev	.0085637	.0026642	.0096885
%RSD	.9702163	.4675134	12.51957
#1	.8748291	.5692987	.0710973
#2	.8813291	.5675118	.0725195
#3	.8918021	.5727525	.0885441

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2356.827	21151.22	980.8574	1756.736	2066.363
Stddev	5.464	108.91	4.4919	14.681	5.864
%RSD	.2318367	.5149025	.4579559	.8356902	.2837692
#1	2351.802	21093.86	977.5070	1757.162	2063.873
#2	2362.643	21082.98	985.9616	1741.846	2073.061
#3	2356.036	21276.82	979.1037	1771.199	2062.155

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-18LX5 Acquired: 01/09/2025 18:30:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024604	.0095931	.0253019	-.017976	.0042087	11.14867	.0790346
Stddev	.0059656	.0059629	.0017679	.010619	.0032527	.18810	.0041820
%RSD	242.4647	62.15756	6.987220	59.07320	77.28470	1.687205	5.291385
#1	-.003485	.0158957	.0251738	-.029570	.0006926	10.98902	.0743895
#2	.008446	.0088427	.0236015	-.015634	.0071103	11.35603	.0825003
#3	.002420	.0040410	.0271304	-.008723	.0048234	11.10097	.0802140

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006408	.0002234	121.3476	.0187426	.0322436	.0447824	30.18061
Stddev	.0000884	.0000567	.9267	.0009079	.0008421	.0012083	.13112
%RSD	13.79652	25.38501	.7636709	4.843971	2.611515	2.698137	.4344623
#1	.0007194	.0001659	120.4832	.0186692	.0319401	.0456447	30.07259
#2	.0005451	.0002251	122.3260	.0178736	.0315953	.0434014	30.32650
#3	.0006579	.0002793	121.2336	.0196849	.0331953	.0453012	30.14274

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.478722	23.97699	.0265275	-.001679	.3289232	.0303746	.0644778
Stddev	.011390	.38196	.0008844	.000509	.0281197	.0020121	.0007430
%RSD	.7702307	1.593011	3.333855	30.34687	8.549025	6.624312	1.152320
#1	1.471670	23.86208	.0271417	-.001887	.3114599	.0297261	.0639641
#2	1.491862	24.40320	.0269270	-.001098	.3139484	.0287667	.0653298
#3	1.472634	23.66567	.0255139	-.002051	.3613613	.0326309	.0641396

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.088472	1.205744	-.090163	.0051493	.1506227	2.229686	.0059643
Stddev	.205335	.004165	.001257	.0007496	.0098898	.012178	.0019497
%RSD	18.86449	.3453973	1.394133	14.55746	6.565928	.5461855	32.68972
#1	.859517	1.210066	-.089147	.0052628	.1616677	2.225025	.0079542
#2	1.256308	1.205410	-.091568	.0043494	.1425877	2.243506	.0058812
#3	1.149591	1.201757	-.089772	.0058356	.1476126	2.220526	.0040574

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-18LX5 Acquired: 01/09/2025 18:30:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2020751	.1257729	.0156866
Stddev	.0038886	.0010622	.0042344
%RSD	1.924348	.8445484	26.99358
#1	.2065291	.1246486	.0108520
#2	.2003416	.1267596	.0174714
#3	.1993548	.1259105	.0187363

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2214.821	19890.95	913.2717	1643.847	2310.868
Stddev	5.317	28.79	5.1261	5.525	7.229
%RSD	.2400578	.1447614	.5612873	.3361106	.3128084
#1	2218.167	19870.01	915.6061	1649.808	2315.855
#2	2217.604	19879.06	907.3939	1638.898	2314.170
#3	2208.690	19923.79	916.8152	1642.834	2302.578

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-20 Acquired: 01/09/2025 18:34:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1283573	.0914937	.1593671	.1905842	.1833415	52.86040	3.947801
Stddev	.0012385	.0027448	.0027717	.0080350	.0018380	.13806	.011646
%RSD	.9648739	2.999991	1.739193	4.215967	1.002525	.2611814	.2949985
#1	.1271186	.0925967	.1625603	.1824576	.1832592	52.97048	3.955174
#2	.1295955	.0935154	.1575837	.1985243	.1815460	52.90523	3.953854
#3	.1283577	.0883689	.1579574	.1907707	.1852193	52.70550	3.934375

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0929372	.0955703	537.1478	.4495059	1.033530	.6263076	135.2674
Stddev	.0006184	.0002234	2.2641	.0026933	.002017	.0034618	.8842
%RSD	.6654133	.2337897	.4215116	.5991718	.1952032	.5527379	.6536558
#1	.0936476	.0953516	539.1745	.4483762	1.033583	.6299919	136.0964
#2	.0926451	.0955610	537.5648	.4525801	1.035521	.6258082	135.3689
#3	.0925189	.0957982	534.7042	.4475614	1.031487	.6231225	134.3368

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.279256	102.4948	1.111255	.0697822	1.164003	1.054567	1.080040
Stddev	.044669	.7705	.000962	.0012387	.007181	.006762	.003422
%RSD	.6136524	.7517863	.0865983	1.775117	.6169037	.6411775	.3168648
#1	7.274149	102.8752	1.110176	.0689667	1.172279	1.060559	1.076229
#2	7.326259	103.0011	1.111566	.0691723	1.159414	1.055905	1.082849
#3	7.237359	101.6080	1.112023	.0712076	1.160318	1.047236	1.081042

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.454974	6.472990	-.394058	.0068838	.7397067	9.437501	.0237977
Stddev	.045868	.003599	.006341	.0002595	.0121342	.036849	.0013794
%RSD	1.029597	.0555958	1.609228	3.769295	1.640405	.3904494	5.796150
#1	4.467274	6.468915	-.401014	.0066725	.7384270	9.477190	.0238763
#2	4.493437	6.475732	-.392562	.0071734	.7524300	9.430940	.0223807
#3	4.404209	6.474322	-.388599	.0068056	.7282631	9.404374	.0251360

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5203-20 Acquired: 01/09/2025 18:34:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNC1S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8689423	.5598571	.0745774
Stddev	.0144382	.0029954	.0067297
%RSD	1.661578	.5350262	9.023819
#1	.8849873	.5630009	.0685325
#2	.8648414	.5595342	.0733710
#3	.8569982	.5570363	.0818288

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2358.743	21084.67	992.3171	1765.578	2063.690
Stddev	3.400	22.48	5.7499	3.612	3.696
%RSD	.1441360	.1066294	.5794369	.2045913	.1791192
#1	2362.309	21091.62	985.7278	1767.238	2067.943
#2	2358.380	21059.54	994.9072	1768.062	2061.254
#3	2355.539	21102.86	996.3165	1761.434	2061.872

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-01 Acquired: 01/09/2025 18:38:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMZ9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1184488	-.009564	2.226829	.0377445	.0491329	61.48756
Stddev	.0028503	.004599	.012799	.0039251	.0045010	.23394
%RSD	2.406373	48.08809	.5747752	10.39905	9.160896	.3804618
#1	.1177075	-.012115	2.231004	.0407914	.0543027	61.75610
#2	.1160424	-.012323	2.237019	.0333153	.0460856	61.32797
#3	.1215966	-.004255	2.212463	.0391268	.0470104	61.37861

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.906603	.0051824	.0203894	265.3482	.1339660	.0500156
Stddev	.008604	.0002040	.0001553	.8143	.0022999	.0016106
%RSD	.4512979	3.935918	.7616863	.3068707	1.716789	3.220138
#1	1.897288	.0053941	.0202953	264.6080	.1341467	.0502228
#2	1.908267	.0051659	.0205687	265.2161	.1315810	.0515125
#3	1.914254	.0049872	.0203043	266.2204	.1361702	.0483114

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5957180	137.1539	5.085239	63.88656	.1583962	.0056579
Stddev	.0037041	.4204	.019361	.30868	.0023555	.0009469
%RSD	.6217923	.3065421	.3807295	.4831759	1.487077	16.73563
#1	.5977362	137.5385	5.104178	63.92991	.1598909	.0045650
#2	.5914430	137.2182	5.065481	63.55848	.1596166	.0061765
#3	.5979746	136.7050	5.086059	64.17127	.1556809	.0062321

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.089237	.1717981	3.379704	7.120457	F 10.93273	-.309394
Stddev	.033798	.0009734	.010117	.222816	.08840	.004532
%RSD	3.102887	.5665910	.2993392	3.129234	.8085840	1.464721
#1	1.088103	.1710824	3.386519	7.091821	10.94222	-.305629
#2	1.123587	.1714054	3.368080	6.913344	11.01600	-.308129
#3	1.056020	.1729065	3.384513	7.356207	10.83996	-.314424

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-01 Acquired: 01/09/2025 18:38:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMZ9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0213591	8.110540	11.29045	.1435565	.7364365	.2935122
Stddev	.0016235	.070642	.04943	.0009368	.0088960	.0023254
%RSD	7.601187	.8709948	.4377621	.6525697	1.207974	.7922754
#1	.0226692	8.124982	11.29452	.1438974	.7265371	.2943550
#2	.0195427	8.172846	11.23911	.1442751	.7390115	.2908829
#3	.0218653	8.033793	11.33771	.1424969	.7437609	.2952988

Elem	Li6707
Units	ppm
Avg	.0707106
Stddev	.0067679
%RSD	9.571260
#1	.0646325
#2	.0780037
#3	.0694955

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2357.797	21270.18	981.5665	1784.498	2217.824
Stddev	9.029	225.92	3.4556	3.541	13.768
%RSD	.3829345	1.062142	.3520468	.1984148	.6207721
#1	2353.981	21237.52	979.1318	1780.785	2213.776
#2	2351.302	21510.65	985.5215	1787.836	2206.535
#3	2368.107	21062.36	980.0460	1784.872	2233.162

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-02 Acquired: 01/09/2025 18:41:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN00 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1829726	-.026192	2.936552	.0974109	.0762689	73.24709
Stddev	.0062885	.004566	.025645	.0031626	.0031203	.29328
%RSD	3.436870	17.43407	.8732914	3.246682	4.091166	.4003949
#1	.1801291	-.031443	2.917432	.0984533	.0749036	72.90853
#2	.1786079	-.023147	2.926530	.0999208	.0798391	73.40963
#3	.1901806	-.023987	2.965695	.0938587	.0740639	73.42311

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.941639	.0071097	.0297234	304.0687	.1593179	.0393504
Stddev	.016654	.0001878	.0002345	1.6170	.0014426	.0007255
%RSD	.8577337	2.641132	.7889834	.5317964	.9054968	1.843787
#1	1.930440	.0068961	.0294973	302.6475	.1609803	.0387733
#2	1.933700	.0071846	.0297076	303.7306	.1583952	.0391130
#3	1.960777	.0072485	.0299655	305.8281	.1585781	.0401649

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7271976	219.0165	6.799847	52.31503	.2102602	.0091509
Stddev	.0013937	1.3867	.048669	.41821	.0019713	.0004578
%RSD	.1916572	.6331272	.7157336	.7994048	.9375675	5.002656
#1	.7259864	217.7504	6.753389	51.93431	.2093723	.0089306
#2	.7268855	218.8006	6.795691	52.24812	.2088890	.0088449
#3	.7287209	220.4984	6.850460	52.76266	.2125194	.0096772

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.711642	.2165480	4.703957	7.645819	F 14.56760	-.572606
Stddev	.022711	.0012896	.016250	.153585	.15926	.004955
%RSD	1.326838	.5955217	.3454635	2.008748	1.093263	.8652874
#1	1.687261	.2156075	4.688297	7.474527	14.41140	-.569440
#2	1.715470	.2180180	4.720740	7.691681	14.56165	-.570063
#3	1.732196	.2160183	4.702833	7.771249	14.72976	-.578316

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-02 Acquired: 01/09/2025 18:41:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN00 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0282369	7.703860	10.86786	.1507873	.8029096	.2608221
Stddev	.0011192	.063154	.02146	.0031571	.0129606	.0031555
%RSD	3.963686	.8197687	.1974928	2.093715	1.614198	1.209808
#1	.0279634	7.635635	10.84598	.1483904	.8157021	.2573240
#2	.0272798	7.715670	10.86872	.1496072	.7897873	.2616885
#3	.0294676	7.760275	10.88888	.1543645	.8032395	.2634539

Elem	Li6707
Units	ppm
Avg	.0766530
Stddev	.0017894
%RSD	2.334454
#1	.0752852
#2	.0786782
#3	.0759957

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2426.611	21558.76	1006.133	1815.912	2248.153
Stddev	11.062	61.33	4.678	8.209	11.969
%RSD	.4558558	.2844867	.4649083	.4520367	.5323996
#1	2423.204	21487.95	1011.535	1824.927	2249.853
#2	2438.976	21593.31	1003.439	1808.869	2259.181
#3	2417.653	21595.02	1003.427	1813.941	2235.424

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-03 Acquired: 01/09/2025 18:45:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2136486	-.029475	2.474408	.0919564	.0638128	79.06860	2.296849
Stddev	.0048054	.002332	.004837	.0034504	.0031914	.28628	.002532
%RSD	2.249214	7.910890	.1955007	3.752208	5.001181	.3620701	.1102193
#1	.2084329	-.026889	2.469241	.0921393	.0626348	78.79091	2.299512
#2	.2178963	-.030122	2.478830	.0953117	.0613778	79.36277	2.296561
#3	.2146168	-.031416	2.475153	.0884182	.0674257	79.05211	2.294474

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072297	.0173533	81.33975	.1662024	.0428739	.5144689	186.3963
Stddev	.0001194	.0000754	.20191	.0019913	.0001850	.0009264	.5073
%RSD	1.650898	.4343622	.2482346	1.198125	.4315358	.1800745	.2721626
#1	.0072111	.0172685	81.21165	.1641335	.0429432	.5153858	186.2421
#2	.0073573	.0173789	81.57251	.1663678	.0430143	.5144877	186.9629
#3	.0071207	.0174125	81.23510	.1681058	.0426643	.5135332	185.9840

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.619758	25.33663	.1940015	.0071916	1.058129	.2500467	3.244710
Stddev	.016635	.20730	.0010245	.0007085	.031665	.0019108	.011001
%RSD	.2960150	.8181747	.5280687	9.851458	2.992535	.7641690	.3390298
#1	5.602024	25.13636	.1950858	.0073262	1.037580	.2483613	3.232039
#2	5.635017	25.55031	.1938690	.0078231	1.094594	.2496564	3.250266
#3	5.622232	25.32322	.1930498	.0064255	1.042213	.2521226	3.251824

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.539923	9.725943	-.565815	.0199293	3.566322	11.11155	.0871354
Stddev	.501969	.019263	.002756	.0008145	.006871	.02892	.0009280
%RSD	6.657485	.1980589	.4870037	4.086982	.1926680	.2603137	1.065059
#1	7.406540	9.716638	-.568994	.0204689	3.558864	11.14431	.0871029
#2	8.095113	9.748092	-.564116	.0189924	3.567707	11.08955	.0862240
#3	7.118118	9.713099	-.564335	.0203266	3.572395	11.10080	.0880792

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-03 Acquired: 01/09/2025 18:45:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7972065	.0522432	.1218048
Stddev	.0037558	.0009024	.0050014
%RSD	.4711225	1.727388	4.106088
#1	.7953231	.0517464	.1202792
#2	.7947651	.0532849	.1177439
#3	.8015314	.0516983	.1273914

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2428.781	21812.32	996.3291	1838.128	2291.199
Stddev	3.314	11.59	1.9058	2.642	2.020
%RSD	.1364430	.0531450	.1912819	.1437214	.0881534
#1	2425.303	21804.82	994.1285	1838.290	2291.940
#2	2429.140	21806.47	997.4298	1835.409	2288.914
#3	2431.901	21825.67	997.4289	1840.686	2292.744

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-04 Acquired: 01/09/2025 18:49:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1566068	-.038361	1.220675	.0909764	.0550563	98.31591	1.148235
Stddev	.0050995	.001244	.009957	.0044809	.0044086	.74427	.010353
%RSD	3.256268	3.244061	.8156942	4.925351	8.007519	.7570196	.9016810
#1	.1551735	-.039243	1.229343	.0866528	.0499848	97.77910	1.136777
#2	.1622697	-.038901	1.222882	.0906767	.0572095	98.00310	1.151008
#3	.1523773	-.036937	1.209799	.0955996	.0579746	99.16553	1.156919

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069937	.0095129	53.06546	.1249669	.0328687	.3059930	187.2421
Stddev	.0001599	.0001893	.53864	.0002133	.0008189	.0024219	1.3754
%RSD	2.285730	1.989623	1.015051	.1706533	2.491438	.7914814	.7345323
#1	.0069123	.0096567	52.47641	.1247766	.0338141	.3033367	185.7125
#2	.0071779	.0092985	53.18705	.1251974	.0323791	.3080784	187.6368
#3	.0068909	.0095834	53.53291	.1249268	.0324130	.3065639	188.3769

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.566940	21.98584	.1433487	.0064724	.7336790	.2383017	1.724667
Stddev	.044766	.36791	.0012258	.0006583	.0418924	.0016567	.006769
%RSD	.9802247	1.673380	.8551108	10.17122	5.709915	.6952183	.3924750
#1	4.531054	22.24579	.1442752	.0057529	.7384005	.2380081	1.731794
#2	4.552662	21.56488	.1438122	.0070445	.7730106	.2400856	1.723883
#3	4.617104	22.14686	.1419588	.0066199	.6896258	.2368115	1.718324

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.412559	5.852759	-.591521	.0169609	1.929627	12.61241	.0466626
Stddev	.108521	.047938	.004258	.0003254	.024756	.04812	.0005620
%RSD	1.464018	.8190667	.7198547	1.918247	1.282955	.3815256	1.204311
#1	7.332387	5.902388	-.594503	.0173084	1.957146	12.57209	.0461324
#2	7.536048	5.849177	-.593415	.0166635	1.922565	12.66568	.0466037
#3	7.369241	5.806713	-.586645	.0169107	1.909169	12.59946	.0472517

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-04 Acquired: 01/09/2025 18:49:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN02 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7500917	-.043980	.1505075
Stddev	.0112405	.000886	.0067327
%RSD	1.498552	2.014784	4.473315
#1	.7504343	-.043419	.1522721
#2	.7611569	-.045002	.1561821
#3	.7386837	-.043520	.1430682

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2370.983	21146.25	953.2623	1787.004	2325.397
Stddev	10.989	42.07	3.0803	8.052	10.987
%RSD	.4634625	.1989454	.3231337	.4506041	.4724904
#1	2358.557	21109.41	955.9716	1780.221	2312.740
#2	2379.419	21192.09	949.9119	1784.887	2332.481
#3	2374.973	21137.25	953.9034	1795.903	2330.970

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-05 Acquired: 01/09/2025 18:53:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1231107	-.039397	.6295683	.1064166	.0567984	111.1880	.6437177
Stddev	.0019734	.001462	.0020289	.0067904	.0057165	.6422	.0031494
%RSD	1.602953	3.711945	.3222645	6.380977	10.06448	.5775678	.4892503
#1	.1252297	-.037724	.6317964	.1065726	.0507076	111.7666	.6425284
#2	.1213254	-.040031	.6290813	.1131277	.0576405	110.4971	.6472885
#3	.1227770	-.040435	.6278272	.0995495	.0620471	111.3005	.6413361

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076807	.0050137	47.97265	.1386974	.0457798	.2362160	197.5581
Stddev	.0000666	.0002172	.12500	.0023930	.0003745	.0013387	.8762
%RSD	.8665112	4.331639	.2605705	1.725317	.8180246	.5667212	.4435232
#1	.0076356	.0051971	47.92319	.1384548	.0459107	.2357610	198.5176
#2	.0076492	.0047739	47.87994	.1412024	.0453575	.2377229	196.8003
#3	.0077571	.0050701	48.11481	.1364349	.0460714	.2351642	197.3563

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.721693	23.08575	.1437723	.0049534	.7450328	.2360052	1.011927
Stddev	.034090	.30108	.0021607	.0005244	.0157303	.0019569	.023629
%RSD	.5071669	1.304185	1.502899	10.58746	2.111361	.8291887	2.335005
#1	6.749795	23.42313	.1421542	.0055474	.7623542	.2361304	1.009893
#2	6.683771	22.84437	.1462261	.0047584	.7316370	.2378966	1.036506
#3	6.731513	22.98977	.1429365	.0045543	.7411072	.2339887	.989381

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.332246	2.582327	-.648528	.0154112	.9876713	14.27392	.0279458
Stddev	.230450	.006895	.010996	.0011128	.0237646	.06022	.0026852
%RSD	3.142968	.2669928	1.695499	7.220479	2.406125	.4218926	9.608626
#1	7.096717	2.576369	-.644470	.0142897	.9670005	14.32687	.0249463
#2	7.342761	2.580733	-.660976	.0154287	1.013637	14.28648	.0301256
#3	7.557258	2.589879	-.640137	.0165151	.982377	14.20841	.0287654

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-05 Acquired: 01/09/2025 18:53:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN03 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.6296084	-.099319	.0850941
Stddev	.0076793	.000355	.0008119
%RSD	1.219693	.3572535	.9541196
#1	.6207631	-.099326	.0852277
#2	.6345708	-.099670	.0842237
#3	.6334914	-.098960	.0858309

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2348.845	20684.29	959.8966	1749.506	2305.773
Stddev	6.326	282.43	2.3625	26.885	10.168
%RSD	.2693250	1.365419	.2461242	1.536740	.4409817
#1	2354.483	20668.29	958.5574	1748.223	2316.041
#2	2342.004	20410.19	958.5079	1723.286	2295.708
#3	2350.048	20974.37	962.6244	1777.010	2305.571

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-06 Acquired: 01/09/2025 18:56:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1629701	-.041119	.4351241	.1497886	.0518080	91.09131	.9668425
Stddev	.0072076	.001095	.0019107	.0032593	.0051370	.61758	.0030755
%RSD	4.422637	2.663767	.4391041	2.175920	9.915444	.6779842	.3180935
#1	.1558594	-.042380	.4368152	.1534465	.0459474	90.58490	.9677760
#2	.1702708	-.040572	.4355058	.1471929	.0539455	91.77934	.9693431
#3	.1627800	-.040404	.4330515	.1487264	.0555312	90.90970	.9634085

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0088629	.0080969	24.54468	.1464508	.0767524	.2794523	241.9730
Stddev	.0001749	.0001781	.18074	.0007049	.0005097	.0003458	1.2093
%RSD	1.973767	2.199339	.7363646	.4813309	.6641031	.1237454	.4997614
#1	.0090590	.0079981	24.50811	.1466407	.0768764	.2797359	241.3276
#2	.0087228	.0079901	24.74091	.1456704	.0771887	.2790671	243.3681
#3	.0088071	.0083025	24.38503	.1470413	.0761921	.2795540	241.2234

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.00628	31.69338	.2547461	.0065778	.5996188	.2161743	.5885432
Stddev	.03847	.21664	.0011431	.0005905	.0131217	.0020913	.0004997
%RSD	.2563625	.6835562	.4487326	8.976619	2.188336	.9674229	.0848974
#1	14.99089	31.64271	.2559215	.0062858	.6048952	.2137706	.5886717
#2	15.05007	31.93086	.2536382	.0072574	.6092809	.2171752	.5879919
#3	14.97789	31.50656	.2546786	.0061902	.5846803	.2175771	.5889661

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.50228	4.867758	-.791784	.0110047	.8662606	11.57233	.0274538
Stddev	.13984	.006227	.007579	.0005800	.0093109	.05098	.0024032
%RSD	1.035658	.1279334	.9572064	5.270478	1.074840	.4404924	8.753502
#1	13.36462	4.865601	-.783103	.0115159	.8608904	11.51648	.0249314
#2	13.49804	4.862896	-.797081	.0111238	.8608793	11.61634	.0297166
#3	13.64420	4.874778	-.795170	.0103744	.8770119	11.58418	.0277133

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-06 Acquired: 01/09/2025 18:56:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN04 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.9078347	-.165783	.0769599
Stddev	.0141662	.001206	.0041896
%RSD	1.560434	.7273019	5.443811
#1	.8977474	-.165357	.0789487
#2	.9240302	-.167144	.0721463
#3	.9017264	-.164848	.0797846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3165.454	28361.79	1306.025	2391.551	2260.782
Stddev	3.264	19.85	3.427	1.379	4.578
%RSD	.1031065	.0699804	.2624263	.0576493	.2025039
#1	3163.120	28339.62	1309.803	2393.093	2265.763
#2	3164.059	28367.86	1303.115	2391.120	2256.758
#3	3169.184	28377.90	1305.158	2390.439	2259.823

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-07 Acquired: 01/09/2025 19:00:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0718848	-.007692	.1604842	.0456014	.0267240	57.46988
Stddev	.0047499	.001967	.0022872	.0090313	.0033999	.83029
%RSD	6.607661	25.57762	1.425193	19.80486	12.72229	1.444736
#1	.0664930	-.007617	.1620225	.0396081	.0243393	58.38622
#2	.0754513	-.009696	.1578559	.0412072	.0252156	57.25589
#3	.0737101	-.005763	.1615742	.0559889	.0306171	56.76753

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4049080	.0045882	.0034760	298.6611	.0747650	.0610843
Stddev	.0043149	.0002257	.0001418	4.2553	.0007693	.0003279
%RSD	1.065639	4.919763	4.078587	1.424778	1.028948	.5367258
#1	.4092509	.0043577	.0033124	303.5662	.0738964	.0612609
#2	.4006217	.0048088	.0035614	295.9592	.0750384	.0607060
#3	.4048514	.0045981	.0035543	296.4580	.0753603	.0612860

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2071868	156.0688	8.731136	36.61263	.1495317	.0034236
Stddev	.0017948	2.2275	.150571	.26091	.0023186	.0009244
%RSD	.8662903	1.427236	1.724526	.7126110	1.550537	27.00141
#1	.2087594	158.6382	8.903820	36.77616	.1468812	.0042102
#2	.2052315	154.8848	8.627280	36.31174	.1511836	.0024054
#3	.2075694	154.6833	8.662309	36.75000	.1505304	.0036553

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8714024	.1533335	.3613320	10.61130	F 10.30754	-.473064
Stddev	.0079467	.0019033	.0025947	.15768	.01380	.004599
%RSD	.9119444	1.241303	.7181023	1.485952	.1339288	.9722756
#1	.8623425	.1555257	.3628710	10.79316	10.29161	-.470721
#2	.8771929	.1523725	.3627887	10.51273	10.31504	-.478363
#3	.8746717	.1521023	.3583362	10.52802	10.31599	-.470107

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-07 Acquired: 01/09/2025 19:00:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN05 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064889	.5609931	9.249815	.0243708	1.807099	.1543874
Stddev	.0000796	.0041818	.073120	.0017485	.025491	.0027111
%RSD	1.226501	.7454282	.7905061	7.174635	1.410607	1.756018
#1	.0064083	.5585372	9.329777	.0248626	1.836284	.1575049
#2	.0065674	.5658216	9.186359	.0258207	1.789196	.1525821
#3	.0064911	.5586206	9.233308	.0224290	1.795816	.1530752

Elem	Li6707
Units	ppm
Avg	.0847634
Stddev	.0058231
%RSD	6.869852
#1	.0847103
#2	.0789670
#3	.0906129

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2713.743	24476.37	1127.094	2051.072	2122.675
Stddev	5.872	116.07	13.450	25.007	6.488
%RSD	.2163817	.4741989	1.193325	1.219200	.3056553
#1	2720.306	24367.54	1111.565	2030.222	2130.094
#2	2711.937	24463.05	1134.641	2044.198	2119.868
#3	2708.987	24598.53	1135.076	2078.797	2118.063

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-08 Acquired: 01/09/2025 19:04:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN34 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1785472	-.018542	1.020627	.0597121	.0271415	56.80378
Stddev	.0023314	.003716	.003326	.0031329	.0054605	.52824
%RSD	1.305761	20.04196	.3258929	5.246629	20.11849	.9299413
#1	.1800490	-.022804	1.017319	.0622063	.0307476	57.39588
#2	.1758614	-.016839	1.023971	.0561958	.0208592	56.38081
#3	.1797313	-.015982	1.020590	.0607342	.0298177	56.63466

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9283558	.0049208	.0056892	56.75103	.1420098	.0438378
Stddev	.0126311	.0004226	.0000539	.48432	.0008028	.0008285
%RSD	1.360586	8.587550	.9469775	.8534182	.5652938	1.889992
#1	.9426247	.0052568	.0056271	57.25720	.1417666	.0429483
#2	.9186056	.0044464	.0057167	56.29200	.1429060	.0445875
#3	.9238370	.0050592	.0057238	56.70389	.1413567	.0439775

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3330843	130.4855	8.328346	20.77436	.1736302	.0046017
Stddev	.0054431	.9035	.085270	.38857	.0015154	.0011881
%RSD	1.634157	.6924495	1.023856	1.870424	.8727681	25.81802
#1	.3378283	131.5090	8.424076	21.20926	.1722538	.0058257
#2	.3271418	129.7983	8.260534	20.65245	.1733827	.0034532
#3	.3342828	130.1493	8.300429	20.46136	.1752541	.0045261

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4919907	.1456661	1.110069	7.921922	F 12.41742	-.404726
Stddev	.0377607	.0014421	.005476	.357998	.04324	.011437
%RSD	7.675088	.9900042	.4932890	4.519083	.3482200	2.825819
#1	.5215124	.1468726	1.116294	7.876443	12.37095	-.415694
#2	.5050189	.1440689	1.105998	7.588836	12.42485	-.392872
#3	.4494410	.1460568	1.107914	8.300486	12.45647	-.405612

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-08 Acquired: 01/09/2025 19:04:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN34 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0135636	4.010809	9.435880	.0513857	.8279224	.0101796
Stddev	.0006224	.019389	.158205	.0022376	.0091614	.0011397
%RSD	4.588651	.4834191	1.676633	4.354456	1.106559	11.19608
#1	.0140939	3.989516	9.575942	.0539476	.8372917	.0108168
#2	.0137184	4.027446	9.264282	.0498145	.8274916	.0088638
#3	.0128784	4.015465	9.467415	.0503949	.8189840	.0108581

Elem	Li6707
Units	ppm
Avg	.0385770
Stddev	.0039503
%RSD	10.24009
#1	.0411457
#2	.0340283
#3	.0405571

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2512.307	22620.07	1031.185	1886.955	2338.686
Stddev	5.229	191.58	12.087	15.185	4.585
%RSD	.2081439	.8469571	1.172164	.8047508	.1960432
#1	2512.538	22590.95	1018.071	1881.253	2341.227
#2	2506.966	22444.72	1041.880	1875.447	2333.393
#3	2517.417	22824.55	1033.603	1904.166	2341.437

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-09 Acquired: 01/09/2025 19:08:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN35 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4233787	-.042051	1.661021	.1250608	.0584672	69.27814
Stddev	.0076419	.000649	.001707	.0023644	.0015557	.45150
%RSD	1.804990	1.543530	.1027834	1.890604	2.660793	.6517159
#1	.4145564	-.041678	1.659422	.1263358	.0602484	69.07687
#2	.4276335	-.042801	1.660822	.1223326	.0573746	68.96228
#3	.4279462	-.041675	1.662819	.1265141	.0577787	69.79527

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.309813	.0074261	.0078380	50.76043	.1433319	.0331976
Stddev	.008931	.0001692	.0001044	.40355	.0013894	.0009050
%RSD	.6818290	2.278331	1.332020	.7950130	.9693836	2.726151
#1	1.301444	.0074570	.0078403	50.36340	.1433263	.0324656
#2	1.308779	.0075777	.0077324	50.74769	.1447241	.0342095
#3	1.319216	.0072436	.0079412	51.17020	.1419453	.0329177

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5129157	232.0619	11.35430	21.74903	.2158714	.0081176
Stddev	.0073315	1.3868	.06201	.25834	.0008071	.0013660
%RSD	1.429371	.5975970	.5460959	1.187844	.3738781	16.82711
#1	.5101191	230.8518	11.30764	21.45617	.2155961	.0068254
#2	.5073941	231.7588	11.33061	21.84631	.2152380	.0079803
#3	.5212338	233.5752	11.42466	21.94461	.2167802	.0095470

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7952124	.1937758	1.434549	9.287652	F 16.70269	-.755748
Stddev	.0176358	.0032214	.007312	.236205	.06666	.018874
%RSD	2.217751	1.662422	.5096961	2.543221	.3991257	2.497414
#1	.7749605	.1916457	1.426601	9.399700	16.63510	-.750643
#2	.8071869	.1922001	1.436056	9.016275	16.70460	-.739951
#3	.8034898	.1974818	1.440989	9.446982	16.76838	-.776649

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-09 Acquired: 01/09/2025 19:08:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN35 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0133621	2.894987	7.972686	.0904736	.8713592	-.079175
Stddev	.0012431	.003683	.121146	.0019703	.0033627	.000368
%RSD	9.303313	.1272342	1.519511	2.177787	.3859199	.4649591
#1	.0119944	2.892933	7.914071	.0891814	.8718451	-.078753
#2	.0144232	2.892789	7.891996	.0894980	.8744525	-.079345
#3	.0136687	2.899240	8.111991	.0927414	.8677799	-.079427

Elem	Li6707
Units	ppm
Avg	.0515089
Stddev	.0066003
%RSD	12.81391
#1	.0446103
#2	.0577637
#3	.0521528

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2617.900	23765.97	1083.611	1981.086	2306.951
Stddev	7.220	199.59	10.801	8.857	1.933
%RSD	.2758055	.8398306	.9967467	.4470655	.0837716
#1	2613.522	23639.51	1087.229	1975.953	2305.132
#2	2626.234	23662.33	1092.138	1975.991	2308.980
#3	2613.944	23996.06	1071.465	1991.313	2306.743

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-10 Acquired: 01/09/2025 19:11:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN36 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4415159	-.021567	1.414340	.0946349	.0395428	70.56016
Stddev	.0058480	.002439	.003482	.0037327	.0050454	.08987
%RSD	1.324534	11.31068	.2462116	3.944267	12.75949	.1273619
#1	.4384097	-.024126	1.418331	.0927840	.0442315	70.50714
#2	.4482616	-.019269	1.411920	.0921894	.0401931	70.50942
#3	.4378764	-.021306	1.412770	.0989313	.0342037	70.66392

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.351464	.0067766	.0070256	52.66259	.1243460	.0598582
Stddev	.005560	.0001437	.0001351	.20493	.0015086	.0007390
%RSD	.4114314	2.119809	1.923232	.3891381	1.213200	1.234516
#1	1.347465	.0066107	.0071795	52.68663	.1255046	.0603334
#2	1.357814	.0068599	.0069710	52.85445	.1248932	.0602343
#3	1.349113	.0068591	.0069263	52.44671	.1226402	.0590068

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4602235	173.4303	12.57663	22.78592	.1793769	.0076405
Stddev	.0019601	.5675	.06501	.09190	.0014470	.0008017
%RSD	.4258968	.3272298	.5168878	.4033166	.8066752	10.49247
#1	.4605198	172.7843	12.51313	22.71209	.1800885	.0068225
#2	.4581321	173.6582	12.64304	22.75682	.1777119	.0084248
#3	.4620185	173.8485	12.57371	22.88885	.1803302	.0076741

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6476420	.1802083	1.456556	8.653630	F 14.59859	-.547029
Stddev	.0097526	.0007697	.009149	.273682	.06644	.000937
%RSD	1.505857	.4270963	.6281359	3.162630	.4550893	.1713725
#1	.6363965	.1798161	1.458461	8.716335	14.67506	-.546943
#2	.6527484	.1797137	1.464603	8.890518	14.55507	-.546137
#3	.6537810	.1810950	1.446604	8.354037	14.56563	-.548006

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-10 Acquired: 01/09/2025 19:11:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN36 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113692	2.925436	8.255123	.0637123	.8846146	.0027339
Stddev	.0007627	.020649	.041973	.0005917	.0103168	.0003738
%RSD	6.707997	.7058273	.5084536	.9287739	1.166249	13.67135
#1	.0122442	2.947892	8.233273	.0642223	.8736540	.0027543
#2	.0108450	2.907268	8.228581	.0638511	.8941367	.0030971
#3	.0110186	2.921147	8.303514	.0630635	.8860531	.0023504

Elem	Li6707
Units	ppm
Avg	.0470021
Stddev	.0094365
%RSD	20.07682
#1	.0370050
#2	.0482466
#3	.0557546

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2658.971	24292.11	1105.611	2008.514	2302.936
Stddev	11.854	137.50	1.683	17.458	14.154
%RSD	.4458226	.5660180	.1522648	.8692191	.6146084
#1	2648.815	24187.78	1105.936	1998.402	2288.974
#2	2671.997	24240.62	1107.108	1998.467	2317.274
#3	2656.102	24447.92	1103.789	2028.673	2302.560

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-11 Acquired: 01/09/2025 19:15:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN37 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4814372	-.025854	.6861354	.1182516	.0482665	81.83732
Stddev	.0061090	.001321	.0018519	.0051456	.0072666	.41908
%RSD	1.268909	5.108905	.2699079	4.351417	15.05506	.5120919
#1	.4797531	-.025091	.6840166	.1241555	.0451803	81.38834
#2	.4763469	-.027379	.6869443	.1158787	.0430524	81.90546
#3	.4882116	-.025092	.6874452	.1147206	.0565667	82.21815

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.113453	.0070480	.0063434	49.53931	.1191507	.0752749
Stddev	.009175	.0003540	.0001064	.28876	.0006669	.0017526
%RSD	.8240583	5.022244	1.677726	.5828814	.5597023	2.328286
#1	1.112242	.0072349	.0062666	49.57008	.1195733	.0771955
#2	1.104943	.0072693	.0062986	49.23640	.1183819	.0748670
#3	1.123174	.0066397	.0064649	49.81145	.1194969	.0737623

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4328608	204.1691	16.05915	29.17096	.2055590	.0075872
Stddev	.0018390	1.7658	.11735	.09714	.0000620	.0006547
%RSD	.4248392	.8648847	.7307345	.3329877	.0301584	8.629198
#1	.4349842	202.5566	15.95588	29.06039	.2056302	.0068327
#2	.4317937	203.8945	16.03480	29.20998	.2055294	.0080052
#3	.4318044	206.0561	16.18676	29.24253	.2055173	.0079237

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6122533	.2015067	.8166129	7.879487	F 12.59760	-.643384
Stddev	.0053868	.0006090	.0070160	.451739	.01893	.003374
%RSD	.8798303	.3022214	.8591636	5.733100	.1502622	.5244902
#1	.6183452	.2015927	.8211139	7.550788	12.60956	-.647000
#2	.6102952	.2020681	.8201961	7.693071	12.57578	-.640319
#3	.6081194	.2008593	.8085289	8.394601	12.60747	-.642833

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-11 Acquired: 01/09/2025 19:15:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN37 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0123288	2.051642	3.276838	.0376073	.9870498	-.055157
Stddev	.0005871	.004779	.008417	.0002087	.0090706	.001205
%RSD	4.761712	.2329297	.2568764	.5550166	.9189566	2.185545
#1	.0124977	2.051982	3.285612	.0373664	.9925733	-.054029
#2	.0128130	2.046702	3.276073	.0377214	.9765814	-.055016
#3	.0116758	2.056242	3.268829	.0377340	.9919948	-.056427

Elem	Li6707
Units	ppm
Avg	.0861560
Stddev	.0041032
%RSD	4.762547
#1	.0906536
#2	.0826167
#3	.0851978

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2790.543	25630.77	1153.339	2088.863	2269.503
Stddev	2.768	111.31	5.040	5.907	6.344
%RSD	.0991803	.4342907	.4370193	.2827974	.2795261
#1	2793.265	25600.16	1149.120	2085.021	2263.837
#2	2790.632	25754.18	1158.920	2085.903	2276.357
#3	2787.732	25537.97	1151.977	2095.665	2268.314

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-12 Acquired: 01/09/2025 19:19:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN38 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1406686	.0206650	.2454312	.0209034	.0129559	45.87882
Stddev	.0069584	.0041923	.0035025	.0089207	.0028050	.22785
%RSD	4.946685	20.28681	1.427070	42.67567	21.65001	.4966279
#1	.1424038	.0202947	.2432381	.0157239	.0158903	46.12264
#2	.1465952	.0166702	.2435850	.0157823	.0103013	45.67130
#3	.1330067	.0250301	.2494706	.0312041	.0126761	45.84252

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5011927	.0043524	.0030562	F 917.2602	.0727177	.0914097
Stddev	.0016117	.0002536	.0001065	4.2426	.0011571	.0010587
%RSD	.3215747	5.825588	3.485360	.4625330	1.591197	1.158157
#1	.5029132	.0045304	.0031791	922.1500	.0739751	.0905213
#2	.4997180	.0044648	.0029913	915.0748	.0716978	.0911267
#3	.5009471	.0040621	.0029981	914.5557	.0724801	.0925811

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2897530	131.7220	10.40106	201.8319	.1279746	.0044715
Stddev	.0034707	.8223	.05058	.9351	.0010294	.0015558
%RSD	1.197831	.6242316	.4863216	.4632850	.8044003	34.79347
#1	.2924317	132.5920	10.45927	202.8449	.1270786	.0041419
#2	.2909951	131.6164	10.37618	201.0018	.1290991	.0061657
#3	.2858321	130.9577	10.36774	201.6492	.1277462	.0031070

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.223301	.1190504	.4004979	5.675985	8.185608	-.345264
Stddev	.016372	.0013383	.0020652	.142976	.021490	.002883
%RSD	1.338339	1.124168	.5156682	2.518964	.2625309	.8348731
#1	1.223544	.1204356	.3981180	5.725635	8.168767	-.348575
#2	1.239550	.1189510	.4018192	5.514803	8.209811	-.343900
#3	1.206809	.1177645	.4015566	5.787517	8.178246	-.343317

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-12 Acquired: 01/09/2025 19:19:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN38 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079045	1.555761	5.511948	.0237322	.6128992	.5836543
Stddev	.0009068	.004360	.060105	.0007931	.0043952	.0019424
%RSD	11.47194	.2802685	1.090448	3.342062	.7171182	.3327994
#1	.0086031	1.550757	5.567692	.0231881	.6131134	.5854694
#2	.0082305	1.558743	5.519881	.0233663	.6171834	.5816057
#3	.0068797	1.557784	5.448270	.0246423	.6084008	.5838878

Elem	Li6707
Units	ppm
Avg	.0496698
Stddev	.0103886
%RSD	20.91521
#1	.0411547
#2	.0466102
#3	.0612446

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2319.033	21083.91	989.2116	1740.515	1912.201
Stddev	.971	50.07	8.2472	3.178	1.499
%RSD	.0418547	.2375008	.8337141	.1825789	.0783844
#1	2319.948	21064.81	981.2408	1743.232	1913.830
#2	2318.015	21140.72	988.6840	1741.292	1911.893
#3	2319.135	21046.20	997.7099	1737.021	1910.881

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-16 Acquired: 01/09/2025 19:23:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN54 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1792916	-.029645	3.201442	.0966751	.0471356	80.53240
Stddev	.0027028	.001889	.004783	.0049596	.0056773	.40276
%RSD	1.507512	6.373761	.1494018	5.130212	12.04468	.5001259
#1	.1820040	-.027465	3.206817	.1021716	.0442726	80.95173
#2	.1792724	-.030655	3.197654	.0953193	.0536744	80.49690
#3	.1765984	-.030814	3.199854	.0925343	.0434597	80.14855

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.339765	.0083939	.0097594	61.74566	.1936916	.0391587
Stddev	.005752	.0002988	.0000777	.38379	.0008532	.0010557
%RSD	.1722222	3.559844	.7959942	.6215651	.4405047	2.695829
#1	3.345677	.0084698	.0097636	62.18749	.1941129	.0395081
#2	3.339430	.0080644	.0096797	61.49497	.1927097	.0379726
#3	3.334188	.0086473	.0098349	61.55453	.1942522	.0399953

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5580754	178.3275	5.622868	22.12057	.2289233	.0079943
Stddev	.0032189	.7308	.029230	.25678	.0009039	.0010178
%RSD	.5767817	.4098235	.5198391	1.160822	.3948625	12.73133
#1	.5611077	178.7517	5.649627	21.85627	.2288028	.0081416
#2	.5584208	178.7472	5.627301	22.36910	.2298814	.0089303
#3	.5546978	177.4836	5.591674	22.13633	.2280857	.0069108

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8940092	.2341207	3.802275	15.35159	F 18.23518	-.532746
Stddev	.0079669	.0022662	.017488	.19055	.04028	.004754
%RSD	.8911467	.9679465	.4599397	1.241261	.2208809	.8922999
#1	.9006821	.2351358	3.785621	15.15908	18.18991	-.535965
#2	.8961569	.2357019	3.820492	15.35557	18.26707	-.534986
#3	.8851885	.2315245	3.800711	15.54013	18.24854	-.527286

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-16 Acquired: 01/09/2025 19:23:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN54 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0136593	4.673786	12.84249	.2419581	.9185171	.0499764
Stddev	.0005994	.012316	.08372	.0012216	.0018341	.0003118
%RSD	4.388244	.2635093	.6518919	.5048742	.1996816	.6239398
#1	.0138621	4.663723	12.91810	.2421439	.9187564	.0502679
#2	.0141310	4.670115	12.85686	.2430761	.9202198	.0496476
#3	.0129848	4.687520	12.75252	.2406543	.9165751	.0500135

Elem	Li6707
Units	ppm
Avg	.0885283
Stddev	.0079039
%RSD	8.928064
#1	.0941998
#2	.0918849
#3	.0795001

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2682.516	24592.86	1094.630	2001.637	2308.503
Stddev	1.853	95.20	4.862	11.679	4.275
%RSD	.0690718	.3870884	.4441336	.5834972	.1851815
#1	2684.649	24553.89	1089.270	2010.743	2313.087
#2	2681.304	24701.35	1098.755	2005.700	2307.797
#3	2681.596	24523.32	1095.865	1988.469	2304.626

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-17 Acquired: 01/09/2025 19:27:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN55 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1938625	-.035253	3.127937	.1004512	.0474556	81.36863
Stddev	.0062722	.001018	.013484	.0063108	.0034264	.18906
%RSD	3.235405	2.886473	.4310874	6.282463	7.220240	.2323552
#1	.1984669	-.034089	3.123077	.0944726	.0502806	81.57831
#2	.1867187	-.035976	3.117558	.0998324	.0436442	81.21115
#3	.1964018	-.035693	3.143178	.1070486	.0484422	81.31644

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.269938	.0086332	.0096058	41.91562	.1686885	.0326496
Stddev	.009899	.0001511	.0000406	.09274	.0004341	.0012248
%RSD	.3027226	1.750048	.4228166	.2212442	.2573577	3.751422
#1	3.261422	.0087149	.0096208	41.83368	.1688477	.0312374
#2	3.267592	.0087259	.0096368	41.89687	.1681972	.0334221
#3	3.280799	.0084589	.0095598	42.01629	.1690206	.0332894

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6550757	181.9180	6.048785	20.21655	.2118990	.0077259
Stddev	.0032935	.7191	.026334	.09997	.0018290	.0006791
%RSD	.5027716	.3953045	.4353537	.4944947	.8631465	8.789607
#1	.6584598	182.2365	6.045330	20.32396	.2137575	.0084899
#2	.6518809	181.0946	6.024350	20.19947	.2101010	.0074967
#3	.6548865	182.4229	6.076676	20.12622	.2118385	.0071911

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7691142	.2524099	4.107951	12.35695	F 11.76422	-.562806
Stddev	.0417267	.0013215	.010479	.28211	.02756	.010154
%RSD	5.425296	.5235397	.2550802	2.282976	.2342850	1.804093
#1	.8172956	.2530879	4.096456	12.09307	11.73486	-.567468
#2	.7452142	.2508870	4.110431	12.32349	11.76827	-.551159
#3	.7448328	.2532547	4.116968	12.65430	11.78953	-.569791

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-17 Acquired: 01/09/2025 19:27:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN55 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113961	3.658706	12.53772	.2756492	.9269931	.0299917
Stddev	.0015719	.010752	.06040	.0014046	.0011024	.0002450
%RSD	13.79363	.2938865	.4817622	.5095645	.1189175	.8169753
#1	.0109517	3.650125	12.59624	.2755392	.9258397	.0302697
#2	.0100943	3.670768	12.47560	.2743028	.9280361	.0298986
#3	.0131425	3.655226	12.54132	.2771056	.9271034	.0298069

Elem	Li6707
Units	ppm
Avg	.1021721
Stddev	.0050505
%RSD	4.943165
#1	.0964931
#2	.1038625
#3	.1061605

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2650.004	24283.75	1090.384	1992.228	2317.966
Stddev	12.576	90.14	5.491	7.003	8.585
%RSD	.4745761	.3711937	.5035629	.3515223	.3703875
#1	2650.625	24217.46	1084.194	1999.236	2320.413
#2	2637.129	24247.40	1094.665	1985.230	2308.423
#3	2662.259	24386.39	1092.294	1992.217	2325.063

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-18 Acquired: 01/09/2025 19:30:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN56 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1682715	-.036630	2.088077	.1023267	.0405873	74.72197	2.399941
Stddev	.0038944	.002730	.005866	.0017199	.0023324	.32102	.005533
%RSD	2.314332	7.452750	.2809077	1.680812	5.746679	.4296250	.2305364
#1	.1652094	-.038414	2.081475	.1035982	.0408032	75.00460	2.396338
#2	.1726546	-.033487	2.090072	.1030120	.0381545	74.78837	2.406311
#3	.1669506	-.037990	2.092685	.1003697	.0428043	74.37293	2.397173

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075217	.0062315	34.64894	.1343117	.0291986	.5221562	176.8526
Stddev	.0000537	.0001913	.08830	.0002945	.0002800	.0040423	1.0608
%RSD	.7138371	3.069243	.2548304	.2192751	.9588323	.7741636	.5998397
#1	.0075817	.0060119	34.61044	.1341154	.0289697	.5254712	177.6126
#2	.0075053	.0063609	34.74995	.1341694	.0295107	.5233444	177.3046
#3	.0074781	.0063218	34.58643	.1346504	.0291152	.5176529	175.6407

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.805457	19.42776	.1644058	.0057245	.6435783	.2129337	2.149115
Stddev	.017322	.23227	.0003158	.0003017	.0256694	.0017335	.007927
%RSD	.2983664	1.195536	.1921050	5.270194	3.988541	.8141280	.3688301
#1	5.818497	19.68420	.1644787	.0056335	.6609397	.2149230	2.153073
#2	5.812072	19.36757	.1640599	.0054788	.6140925	.2117455	2.154284
#3	5.785803	19.23152	.1646788	.0060612	.6557028	.2121328	2.139989

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.221102	8.542832	-.565601	.0094577	2.766296	12.49869	.1602284
Stddev	.044295	.017370	.003483	.0007547	.009541	.08440	.0026088
%RSD	.5387968	.2033277	.6157940	7.980164	.3449140	.6752509	1.628156
#1	8.203767	8.522822	-.567519	.0092755	2.757254	12.58039	.1608075
#2	8.271443	8.551652	-.567704	.0088107	2.765364	12.50385	.1573788
#3	8.188097	8.554022	-.561581	.0102869	2.776269	12.41183	.1624990

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-18 Acquired: 01/09/2025 19:30:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN56 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7498887	-.007503	.0880067
Stddev	.0064600	.000959	.0085742
%RSD	.8614639	12.78014	9.742640
#1	.7573435	-.006972	.0927341
#2	.7459359	-.008610	.0931766
#3	.7463866	-.006927	.0781094

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2661.459	24082.79	1087.408	2001.189	2347.203
Stddev	11.452	51.68	7.779	6.620	8.695
%RSD	.4302914	.2145993	.7154148	.3308229	.3704592
#1	2674.222	24028.89	1078.795	1993.709	2356.652
#2	2658.073	24131.93	1089.506	2003.561	2345.421
#3	2652.081	24087.54	1093.923	2006.296	2339.537

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-19 Acquired: 01/09/2025 19:34:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN57 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1324706	-.030593	.5510049	.0993973	.0371083	68.51578	1.288396
Stddev	.0044741	.002083	.0016266	.0030050	.0009822	.16723	.010097
%RSD	3.377434	6.808501	.2952018	3.023187	2.646742	.2440778	.7837104
#1	.1334156	-.028362	.5503610	.0981351	.0382369	68.68311	1.295050
#2	.1363967	-.030930	.5528548	.0972294	.0364478	68.34865	1.293361
#3	.1275995	-.032486	.5497988	.1028276	.0366401	68.51559	1.276778

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065666	.0037405	28.55270	.1115856	.0264757	.2525707	176.8438
Stddev	.0003869	.0001517	.12413	.0012813	.0007923	.0039973	.3835
%RSD	5.891656	4.054807	.4347488	1.148282	2.992415	1.582631	.2168714
#1	.0069280	.0037082	28.57340	.1101685	.0267567	.2552411	177.0591
#2	.0066132	.0036076	28.66518	.1126624	.0255812	.2544957	177.0713
#3	.0061585	.0039057	28.41952	.1119260	.0270892	.2479751	176.4010

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.658558	22.49625	.1437702	.0045901	.5559563	.1811303	.7736389
Stddev	.023116	.08469	.0019796	.0009276	.0038699	.0007145	.0025403
%RSD	.2669770	.3764819	1.376881	20.20844	.6960848	.3944868	.3283632
#1	8.680923	22.57723	.1428032	.0035280	.5536843	.1808374	.7729525
#2	8.634757	22.50323	.1460474	.0050010	.5537599	.1819447	.7715123
#3	8.659994	22.40828	.1424601	.0052412	.5604247	.1806087	.7764520

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.848176	6.028739	-.569882	.0082756	1.455244	11.25375	.0485498
Stddev	.098700	.017794	.009662	.0011541	.003847	.10053	.0014686
%RSD	1.687709	.2951587	1.695464	13.94564	.2643498	.8932661	3.024955
#1	5.740694	6.015377	-.566822	.0092727	1.459633	11.26743	.0472597
#2	5.869092	6.021903	-.580704	.0085428	1.452457	11.34674	.0482417
#3	5.934741	6.048938	-.562120	.0070114	1.453642	11.14709	.0501480

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-19 Acquired: 01/09/2025 19:34:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN57 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5959506	-.066555	.0644045
Stddev	.0146733	.000134	.0087279
%RSD	2.462158	.2009947	13.55167
#1	.6119662	-.066677	.0544918
#2	.5927315	-.066576	.0709356
#3	.5831542	-.066412	.0677860

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2723.455	24834.66	1117.615	2036.602	2352.344
Stddev	7.166	24.34	8.106	8.038	4.839
%RSD	.2631075	.0980157	.7252914	.3946526	.2057263
#1	2719.427	24811.76	1114.503	2035.081	2354.016
#2	2731.728	24860.22	1111.526	2045.291	2356.126
#3	2719.210	24832.00	1126.816	2029.434	2346.890

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV140 Acquired: 01/09/2025 19:38:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV140 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.990227	4.766833	24.35267	4.975227	4.934145	393.6037
Stddev	.018652	.048255	.25349	.039214	.063596	2.3102
%RSD	.3737672	1.012303	1.040913	.7881859	1.288893	.5869355
#1	4.972178	4.745186	24.16729	4.938261	4.875931	396.0273
#2	4.989076	4.733193	24.24919	4.971064	4.924487	393.3570
#3	5.009428	4.822121	24.64153	5.016357	5.002018	391.4267

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.978037	.5015244	2.458280	400.0355	15.28550	2.380914
Stddev	.021921	.0029723	.023131	.2108	.07286	.023299
%RSD	.2196947	.5926611	.9409491	.0526862	.4766430	.9785764
#1	9.956167	.5045758	2.441974	400.2534	15.28575	2.366307
#2	9.977936	.5013595	2.448112	400.0203	15.21252	2.368652
#3	10.00001	.4986380	2.484753	399.8327	15.35824	2.407784

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.91602	394.1334	14.19833	391.1103	2.479653	1.252486
Stddev	.08595	1.7117	.04444	1.3799	.021569	.008983
%RSD	.5762474	.4342872	.3130179	.3528195	.8698549	.7171861
#1	14.99206	395.7387	14.24900	391.9415	2.463867	1.252817
#2	14.93325	394.3292	14.18003	391.8721	2.470863	1.243342
#3	14.82276	392.3322	14.16596	389.5175	2.504230	1.261298

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	416.0986	2.438314	14.39859	153.8227	4.859318	F 4.136800
Stddev	2.8574	.013696	.04890	.3159	.042974	.025117
%RSD	.6867006	.5616836	.3396339	.2053625	.8843532	.6071560
#1	417.0188	2.448930	14.35128	153.5553	4.834561	4.164406
#2	418.3825	2.443156	14.39553	153.7415	4.834454	4.130697
#3	412.8945	2.422855	14.44894	154.1713	4.908940	4.115298

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV140 Acquired: 01/09/2025 19:38:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV140 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.824634	4.917320	F 7.940407	4.936126	4.905323	4.634113
Stddev	.064978	.061840	.046354	.051764	.037251	.019271
%RSD	1.346787	1.257591	.5837769	1.048669	.7594068	.4158428
#1	4.775090	4.872909	7.980450	4.894513	4.916130	4.642065
#2	4.800608	4.891100	7.951144	4.919775	4.935975	4.648136
#3	4.898203	4.987950	7.889626	4.994091	4.863862	4.612139

Elem	Li6707
Units	ppm
Avg	4.971811
Stddev	.026694
%RSD	.5369002
#1	4.942096
#2	4.979575
#3	4.993762

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1810.002	16856.13	824.8966	1370.053	1795.735
Stddev	19.052	74.12	5.2121	6.269	14.205
%RSD	1.052596	.4397036	.6318533	.4575626	.7910165
#1	1822.489	16881.81	820.7373	1376.692	1802.374
#2	1819.444	16914.00	823.2091	1369.232	1805.404
#3	1788.073	16772.59	830.7435	1364.235	1779.427

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCB140 Acquired: 01/09/2025 19:42:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB140 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029645	-.000793	.0010762	-.007489	.0028418	-.027541
Stddev	.0076384	.005072	.0022220	.006799	.0058743	.020886
%RSD	257.6679	639.3485	206.4588	90.78303	206.7075	75.83369
#1	.0076975	-.005171	-.001041	-.014012	.0084049	-.003677
#2	-.005848	-.001974	.003390	-.008011	.0034212	-.042485
#3	.007043	.004765	.000880	-.000444	-.003301	-.036462

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005199	-.000230	.0000697	.0159780	-.000858	.0002303
Stddev	.005417	.000201	.0000097	.0233281	.001021	.0002957
%RSD	104.1883	87.78303	13.85543	146.0015	118.9402	128.3925
#1	-.010956	-.000009	.0000806	-.010187	-.000869	.0000627
#2	-.004437	-.000276	.0000667	.034604	-.001873	.0000565
#3	-.000203	-.000403	.0000619	.023517	.000168	.0005716

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004471	-.053899	.0039301	.0577196	.0000686	-.001682
Stddev	.0010221	.034141	.0045292	.0888493	.0000381	.001277
%RSD	228.5948	63.34174	115.2446	153.9328	55.46651	75.90195
#1	.0012266	-.087737	.0045527	.0337006	.0001016	-.000394
#2	.0008249	-.054497	-.000878	-.016651	.0000270	-.002947
#3	-.000710	-.019463	.008116	.156109	.0000774	-.001705

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0195553	.0003512	.0009150	.6724836	.0004870	.0191110
Stddev	.0058731	.0011768	.0011043	.4216772	.0003582	.0029186
%RSD	30.03310	335.0648	120.6827	62.70446	73.55268	15.27160
#1	.0261083	.0017018	.0008589	.5967568	.0000868	.0220810
#2	.0147666	-.000454	.0020462	1.126893	.0007776	.0190052
#3	.0177910	-.000195	-.000160	.293801	.0005967	.0162468

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCB140 Acquired: 01/09/2025 19:42:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB140 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004683	.0062640	-.000069	-.000375	.0137698	.0003942
Stddev	.0005707	.0011033	.004081	.000799	.0104437	.0004614
%RSD	121.8624	17.61321	5900.232	212.8700	75.84523	117.0554
#1	.0006851	.0050422	.001883	-.000423	.0251291	.0000976
#2	.0008988	.0071873	-.004760	.000446	.0045836	.0009257
#3	-.000179	.0065627	.002669	-.001150	.0115967	.0001591

Elem	Li6707
Units	ppm
Avg	F .0332163
Stddev	.0033188
%RSD	9.991388
#1	.0333915
#2	.0298134
#3	.0364440

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2225.896	20213.51	895.2899	1665.132	2613.106
Stddev	11.909	118.10	4.5459	12.313	15.722
%RSD	.5350069	.5842670	.5077536	.7394776	.6016596
#1	2214.913	20077.22	890.0424	1652.037	2597.806
#2	2224.221	20277.79	897.8000	1676.477	2612.293
#3	2238.553	20285.53	898.0273	1666.881	2629.219

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-20 Acquired: 01/09/2025 19:46:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN58 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1763405	-.027030	.6589169	.1320880	.0530863	71.50085
Stddev	.0036523	.001978	.0035911	.0009277	.0025827	.47395
%RSD	2.071179	7.316666	.5449985	.7023138	4.865148	.6628595
#1	.1804105	-.024790	.6599582	.1329818	.0509599	71.39733
#2	.1733484	-.028533	.6549202	.1321524	.0559604	72.01801
#3	.1752626	-.027768	.6618722	.1311298	.0523385	71.08722

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.543783	.0065121	.0060704	72.81630	.1248318	.0672388
Stddev	.016161	.0002288	.0001763	.43469	.0012469	.0012421
%RSD	1.046816	3.513930	2.904198	.5969640	.9988751	1.847309
#1	1.547616	.0065664	.0062447	72.68630	.1259410	.0675130
#2	1.557683	.0062610	.0058922	73.30115	.1250722	.0658825
#3	1.526051	.0067090	.0060743	72.46145	.1234822	.0683209

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3245642	229.6085	19.18589	33.36977	.2128547	.0084747
Stddev	.0014367	1.7054	.13865	.38995	.0026197	.0005709
%RSD	.4426452	.7427316	.7226481	1.168586	1.230754	6.736477
#1	.3255545	229.2862	19.17691	32.92543	.2155897	.0080711
#2	.3252217	231.4520	19.32881	33.65505	.2103679	.0082250
#3	.3229165	228.0872	19.05195	33.52884	.2126065	.0091279

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9203157	.1991065	.9392584	7.257420	F 11.42417	-.734185
Stddev	.0353655	.0015664	.0059844	.076494	.04915	.006216
%RSD	3.842760	.7866930	.6371376	1.054008	.4302650	.8466211
#1	.9192082	.1989817	.9323697	7.221038	11.47064	-.728204
#2	.9562219	.2007315	.9431736	7.205907	11.37271	-.740612
#3	.8855169	.1976063	.9422320	7.345314	11.42916	-.733741

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-20 Acquired: 01/09/2025 19:46:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN58 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091578	1.217257	8.199677	.0441199	.6262522	-.067923
Stddev	.0004966	.005821	.052813	.0003718	.0023549	.000151
%RSD	5.422775	.4782046	.6440860	.8425801	.3760269	.2225249
#1	.0085864	1.219751	8.190715	.0437222	.6235592	-.068021
#2	.0094019	1.221415	8.256398	.0444586	.6272723	-.067749
#3	.0094851	1.210604	8.151918	.0441789	.6279249	-.067999

Elem	Li6707
Units	ppm
Avg	.0953380
Stddev	.0022362
%RSD	2.345500
#1	.0927593
#2	.0965128
#3	.0967419

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.265	25872.75	1170.228	2134.514	2297.686
Stddev	16.384	108.51	4.810	13.653	16.047
%RSD	.5760462	.4193953	.4110012	.6396083	.6983872
#1	2832.522	25877.22	1172.297	2145.764	2287.576
#2	2862.983	25978.96	1164.730	2138.453	2316.188
#3	2837.290	25762.08	1173.656	2119.325	2289.293

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-21 Acquired: 01/09/2025 19:49:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN59 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0510860	.0076322	.1355315	.0433692	.0264827	50.57271	.6066492
Stddev	.0029168	.0023666	.0017411	.0008034	.0065650	.26733	.0034167
%RSD	5.709568	31.00781	1.284608	1.852534	24.78993	.5286097	.5632075
#1	.0490006	.0051772	.1339447	.0433866	.0192271	50.87736	.6036004
#2	.0544191	.0098991	.1352559	.0425572	.0282086	50.46348	.6103421
#3	.0498384	.0078204	.1373939	.0441638	.0320123	50.37729	.6060050

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044930	.0034101	504.7120	.0879666	.0700626	.1272199	150.0834
Stddev	.0004672	.0000943	2.1550	.0007202	.0004560	.0009086	.4300
%RSD	10.39827	2.764061	.4269684	.8187262	.6508980	.7142273	.2865082
#1	.0043648	.0033563	504.8194	.0885465	.0697454	.1275699	150.4467
#2	.0041033	.0035190	506.8112	.0871605	.0698572	.1261884	149.6087
#3	.0050109	.0033552	502.5053	.0881930	.0705852	.1279016	150.1948

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.70231	92.00393	.1723745	.0050571	.9623047	.1218223	.3884714
Stddev	.02742	.38486	.0006783	.0009087	.0332798	.0003421	.0039700
%RSD	.2158547	.4183045	.3935008	17.96834	3.458346	.2808142	1.021948
#1	12.73263	92.44775	.1729364	.0040998	.9458756	.1219974	.3858445
#2	12.69507	91.80156	.1725660	.0059077	1.000604	.1220415	.3865315
#3	12.67925	91.76249	.1716210	.0051639	.940434	.1214281	.3930384

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.873854	4.754878	-.414761	.0059302	.6148979	9.901761	.0250962
Stddev	.193231	.007312	.002377	.0008123	.0077521	.047451	.0013025
%RSD	1.957001	.1537733	.5730629	13.69861	1.260720	.4792203	5.190193
#1	9.654716	4.749601	-.412459	.0061099	.6230133	9.889987	.0245501
#2	10.01978	4.751809	-.417206	.0066376	.6075690	9.953991	.0265829
#3	9.94706	4.763224	-.414618	.0050430	.6141113	9.861306	.0241557

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-21 Acquired: 01/09/2025 19:49:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN59 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7522489	.1351145	.0919941
Stddev	.0027690	.0018085	.0070030
%RSD	.3680952	1.338484	7.612397
#1	.7490730	.1348811	.0924292
#2	.7535171	.1370283	.0987694
#3	.7541567	.1334340	.0847837

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2427.206	21795.31	1019.459	1827.202	2045.765
Stddev	9.768	113.18	5.074	9.870	9.528
%RSD	.4024206	.5192850	.4977456	.5401890	.4657250
#1	2431.037	21852.25	1020.038	1825.066	2055.299
#2	2416.103	21664.96	1014.121	1837.965	2036.244
#3	2434.477	21868.70	1024.219	1818.574	2045.752

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-22 Acquired: 01/09/2025 19:53:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN60 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0827512	.0015140	.2845443	.0703493	.0340883	70.22489
Stddev	.0045311	.0050242	.0020001	.0131111	.0023055	.31625
%RSD	5.475557	331.8522	.7029012	18.63708	6.763203	.4503404
#1	.0872874	-.001673	.2833336	.0595219	.0321543	70.56972
#2	.0827408	-.001090	.2834465	.0665991	.0366395	69.94839
#3	.0782253	.007306	.2868528	.0849268	.0334711	70.15656

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.185452	.0056595	.0063142	F 820.9292	.1274934	.0785908
Stddev	.004371	.0001017	.0000797	2.4739	.0014313	.0008047
%RSD	.3687437	1.796974	1.261610	.3013515	1.122674	1.023939
#1	1.181558	.0055988	.0062725	821.8677	.1261531	.0784829
#2	1.184619	.0056027	.0064060	818.1234	.1273260	.0778454
#3	1.190180	.0057769	.0062640	822.7965	.1290011	.0794440

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2217876	205.0117	20.87759	399.2740	.2317790	.0081766
Stddev	.0020112	.9021	.07328	1.9170	.0018797	.0015101
%RSD	.9068160	.4400187	.3509982	.4801225	.8109666	18.46882
#1	.2236640	205.0353	20.94285	400.4125	.2305053	.0068337
#2	.2196644	204.0980	20.79832	397.0608	.2308939	.0078849
#3	.2220343	205.9017	20.89160	400.3488	.2339378	.0098114

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.645526	.1553755	.6526203	11.96967	6.324385	-.549524
Stddev	.015126	.0015081	.0047515	.08934	.051804	.006231
%RSD	.9192143	.9705969	.7280630	.7464089	.8191103	1.133939
#1	1.629719	.1569733	.6563128	12.05876	6.288435	-.551531
#2	1.646996	.1551764	.6472597	11.97018	6.300956	-.554504
#3	1.659863	.1539769	.6542884	11.88008	6.383765	-.542536

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5207-22 Acquired: 01/09/2025 19:53:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHN60 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076075	1.951279	11.96653	.0393915	1.053271	.1506381
Stddev	.0008611	.020027	.06935	.0019330	.013402	.0006274
%RSD	11.31985	1.026356	.5795393	4.907038	1.272461	.4164978
#1	.0074489	1.940178	12.01507	.0371923	1.068734	.1513307
#2	.0085369	1.939261	11.88710	.0408209	1.044998	.1504760
#3	.0068366	1.974398	11.99741	.0401614	1.046080	.1501077

Elem	Li6707
Units	ppm
Avg	.1297931
Stddev	.0107973
%RSD	8.318835
#1	.1403216
#2	.1187458
#3	.1303120

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2411.464	21645.34	1044.027	1823.618	1850.600
Stddev	14.196	108.95	2.562	4.511	15.731
%RSD	.5886711	.5033383	.2453530	.2473545	.8500512
#1	2424.486	21753.27	1041.441	1822.542	1864.968
#2	2413.574	21535.40	1046.564	1828.570	1853.040
#3	2396.331	21647.37	1044.077	1819.743	1833.791

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-01 Acquired: 01/09/2025 19:57:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2087736	-.029596	5.747406	.0993627	.0452017	70.65677
Stddev	.0050283	.002118	.019599	.0057530	.0026226	.33256
%RSD	2.408506	7.157312	.3410041	5.789916	5.801889	.4706745
#1	.2082105	-.027348	5.748026	.1051397	.0472067	70.78757
#2	.2140598	-.031555	5.727504	.0936340	.0422338	70.27870
#3	.2040506	-.029884	5.766687	.0993143	.0461647	70.90405

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.070307	.0079568	.0174333	75.26557	.1687526	.0427538
Stddev	.009939	.0002356	.0000622	.43006	.0014057	.0001393
%RSD	.4800840	2.961250	.3570059	.5713921	.8330080	.3259244
#1	2.063293	.0082177	.0174106	75.15121	.1676312	.0426112
#2	2.065946	.0078931	.0175037	74.90425	.1703296	.0428896
#3	2.081681	.0077596	.0173856	75.74125	.1682970	.0427605

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4441627	196.2092	11.84303	31.14365	.2274733	.0079436
Stddev	.0010450	1.1715	.07852	.09489	.0018110	.0012918
%RSD	.2352648	.5970760	.6630272	.3046745	.7961286	16.26217
#1	.4452866	196.5921	11.81806	31.24788	.2289726	.0064520
#2	.4439811	194.8941	11.78004	31.12079	.2254613	.0086941
#3	.4432205	197.1413	11.93101	31.06228	.2279862	.0086848

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8601230	.2048580	5.179256	8.264186	F 10.04545	-.627255
Stddev	.0418154	.0005188	.023532	.164107	.00949	.010128
%RSD	4.861554	.2532514	.4543521	1.985757	.0945088	1.614660
#1	.8500488	.2052249	5.196288	8.243383	10.04974	-.638079
#2	.8242651	.2042644	5.152405	8.111473	10.03456	-.625677
#3	.9060552	.2050846	5.189076	8.437702	10.05203	-.618009

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-01 Acquired: 01/09/2025 19:57:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0108019	3.878533	12.48877	.1680551	.8108013	-.004504
Stddev	.0006607	.004501	.04358	.0017665	.0153658	.000570
%RSD	6.116345	.1160405	.3489593	1.051158	1.895140	12.66320
#1	.0100508	3.874339	12.53755	.1681756	.8128389	-.004097
#2	.0110617	3.877972	12.45365	.1662314	.7945183	-.004259
#3	.0112932	3.883288	12.47512	.1697583	.8250466	-.005156

Elem	Li6707
Units	ppm
Avg	.0643628
Stddev	.0048785
%RSD	7.579673
#1	.0656927
#2	.0589573
#3	.0684384

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2605.858	23476.35	1072.961	1973.617	2308.719
Stddev	3.539	109.60	5.289	12.692	1.154
%RSD	.1358164	.4668325	.4929532	.6430958	.0499991
#1	2606.702	23584.56	1071.487	1975.549	2309.335
#2	2608.899	23479.07	1078.831	1985.232	2309.434
#3	2601.973	23365.42	1068.565	1960.069	2307.387

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-02 Acquired: 01/09/2025 20:01:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1802295	-.025433	4.668743	.0936435	.0384153	63.36603	1.841583
Stddev	.0033691	.001771	.010979	.0081060	.0048432	.32869	.008979
%RSD	1.869318	6.964584	.2351676	8.656199	12.60756	.5187199	.4875537
#1	.1823829	-.026230	4.673299	.0904564	.0440065	63.67203	1.851921
#2	.1763470	-.026666	4.656219	.0876154	.0355151	63.01858	1.837090
#3	.1819587	-.023403	4.676712	.1028586	.0357244	63.40747	1.835738

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079953	.0233277	101.2528	.1421775	.0486992	.4605573	189.3847
Stddev	.0002500	.0000542	.3066	.0011610	.0008048	.0066306	.8577
%RSD	3.126653	.2323030	.3027691	.8165816	1.652502	1.439690	.4529107
#1	.0081784	.0233430	101.5469	.1435002	.0495065	.4635906	190.2440
#2	.0077105	.0233725	101.2765	.1417051	.0486941	.4529527	188.5286
#3	.0080969	.0232675	100.9351	.1413272	.0478970	.4651287	189.3816

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.913723	31.34275	.1969367	.0084548	.7636411	.1824511	4.941134
Stddev	.014540	.13849	.0019009	.0013975	.0061917	.0011056	.026809
%RSD	.1466635	.4418611	.9652430	16.52954	.8108160	.6059606	.5425747
#1	9.907004	31.19770	.1989689	.0096251	.7612343	.1833013	4.910187
#2	9.903757	31.47359	.1952021	.0088320	.7706749	.1812013	4.955945
#3	9.930407	31.35695	.1966391	.0069074	.7590142	.1828508	4.957272

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.362266	8.092572	-.600383	.0119487	3.265454	11.89022	.1903918
Stddev	.234528	.021598	.008299	.0012932	.009146	.16489	.0019376
%RSD	3.686231	.2668871	1.382322	10.82262	.2800747	1.386754	1.017714
#1	6.357214	8.116023	-.603880	.0106599	3.275263	11.99769	.1894839
#2	6.599280	8.073497	-.590908	.0119398	3.263938	11.70038	.1926167
#3	6.130305	8.088195	-.606362	.0132462	3.257161	11.97261	.1890748

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-02 Acquired: 01/09/2025 20:01:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7545359	.0551019	.0520344
Stddev	.0069549	.0010764	.0096195
%RSD	.9217478	1.953412	18.48677
#1	.7578548	.0554285	.0412271
#2	.7465432	.0559772	.0596596
#3	.7592096	.0539001	.0552166

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2560.479	22977.75	1052.754	1922.090	2327.069
Stddev	1.399	138.27	10.096	11.727	3.057
%RSD	.0546217	.6017670	.9590161	.6101233	.1313626
#1	2560.561	22901.91	1044.106	1927.901	2324.171
#2	2559.041	22893.99	1063.848	1908.592	2326.774
#3	2561.834	23137.35	1050.306	1929.777	2330.263

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-03 Acquired: 01/09/2025 20:05:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2138775	-.025554	6.885870	.1027858	.0409992	65.12701	2.132707
Stddev	.0034241	.007305	.034801	.0015733	.0038482	.20456	.005850
%RSD	1.600961	28.58616	.5053911	1.530697	9.386111	.3140872	.2743217
#1	.2163215	-.033130	6.880965	.1031171	.0436745	64.93491	2.133061
#2	.2153470	-.024976	6.853782	.1010732	.0427341	65.34209	2.138373
#3	.2099639	-.018555	6.922863	.1041672	.0365890	65.10404	2.126688

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082882	.0133381	77.58476	.1495338	.0417640	.4756294	191.7695
Stddev	.0001126	.0002125	.44126	.0002793	.0012509	.0015820	.7353
%RSD	1.358826	1.593406	.5687425	.1867972	2.995153	.3326077	.3834421
#1	.0082162	.0131524	77.54976	.1493681	.0423195	.4773461	191.2801
#2	.0082303	.0132919	78.04248	.1498563	.0403315	.4753118	192.6151
#3	.0084180	.0135699	77.16205	.1493770	.0426408	.4742303	191.4132

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.88216	27.18518	.1864113	.0089140	.7624716	.2132284	3.926004
Stddev	.01162	.15487	.0014789	.0009258	.0282821	.0003983	.001092
%RSD	.1067902	.5696935	.7933423	10.38535	3.709259	.1867857	.0278239
#1	10.86942	27.07833	.1862181	.0098689	.7817537	.2131618	3.927087
#2	10.89218	27.11442	.1850385	.0088526	.7756565	.2128675	3.926023
#3	10.88489	27.36279	.1879772	.0080204	.7300046	.2136557	3.924902

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.702869	7.690764	-.620849	.0114784	2.637921	11.06781	.2540551
Stddev	.050240	.011228	.002214	.0005686	.013867	.03859	.0028150
%RSD	.7495305	.1459965	.3565704	4.953896	.5256808	.3486718	1.108044
#1	6.732715	7.686634	-.621614	.0113299	2.642139	11.08893	.2558509
#2	6.731026	7.682186	-.622579	.0121065	2.622435	11.09124	.2508107
#3	6.644864	7.703473	-.618354	.0109987	2.649189	11.02327	.2555036

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-03 Acquired: 01/09/2025 20:05:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.123509	.0595030	.0680507
Stddev	.008042	.0006115	.0080646
%RSD	.7158333	1.027724	11.85084
#1	1.121290	.0591113	.0773604
#2	1.132428	.0602076	.0632108
#3	1.116808	.0591899	.0635809

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2603.337	23437.17	1073.007	1958.460	2325.203
Stddev	5.905	183.23	5.570	11.313	3.116
%RSD	.2268340	.7818116	.5191326	.5776442	.1339916
#1	2609.479	23637.72	1077.660	1970.796	2325.405
#2	2597.700	23278.51	1066.834	1948.571	2328.212
#3	2602.833	23395.29	1074.526	1956.011	2321.991

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-04 Acquired: 01/09/2025 20:08:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1715967	-.024717	1.646418	.1024529	.0408912	83.46736	1.953856
Stddev	.0053054	.006301	.004321	.0041789	.0052645	.64564	.027566
%RSD	3.091759	25.49149	.2624511	4.078899	12.87436	.7735262	1.410862
#1	.1721558	-.024923	1.648952	.1046118	.0458944	83.80429	1.976203
#2	.1660339	-.018316	1.641429	.1051108	.0353995	83.87483	1.962313
#3	.1766003	-.030912	1.648873	.0976361	.0413797	82.72295	1.923052

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079017	.0109838	64.44858	.1270395	.0517874	.2329600	195.6489
Stddev	.0001955	.0001781	.52070	.0006455	.0005441	.0034483	1.6235
%RSD	2.473504	1.621569	.8079371	.5081271	1.050703	1.480220	.8297774
#1	.0079211	.0111464	64.83112	.1277186	.0511986	.2351408	196.7492
#2	.0080867	.0110116	64.65902	.1264339	.0522717	.2347548	196.4131
#3	.0076972	.0107935	63.85559	.1269661	.0518918	.2289845	193.7844

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.94806	28.72755	.1705131	.0084697	.6065902	.1901097	1.403360
Stddev	.18240	.37052	.0004876	.0014924	.0148668	.0032342	.003082
%RSD	1.076235	1.289780	.2859844	17.62065	2.450874	1.701212	.2196500
#1	17.04631	29.14910	.1704405	.0091927	.5969288	.1926702	1.399869
#2	17.06028	28.58004	.1700658	.0067534	.6237097	.1911837	1.405705
#3	16.73760	28.45350	.1710329	.0094629	.5991322	.1864752	1.404507

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.407680	5.974574	-.657986	.0111887	1.699965	12.80916	.0650402
Stddev	.169887	.003998	.014552	.0003529	.011382	.16153	.0008871
%RSD	2.293395	.0669147	2.211641	3.154026	.6695699	1.261064	1.363870
#1	7.211511	5.969960	-.670460	.0108355	1.699232	12.93774	.0642909
#2	7.505840	5.976730	-.661499	.0115413	1.688966	12.86189	.0648100
#3	7.505689	5.977030	-.641999	.0111894	1.711695	12.62785	.0660197

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-04 Acquired: 01/09/2025 20:08:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMN9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5583340	-.053642	.0702129
Stddev	.0066944	.000483	.0029914
%RSD	1.198997	.9011426	4.260439
#1	.5586718	-.053428	.0668297
#2	.5648531	-.054195	.0725076
#3	.5514771	-.053302	.0713014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2875.906	25792.42	1167.718	2172.697	2321.853
Stddev	13.278	29.14	14.272	1.778	6.420
%RSD	.4616877	.1129877	1.222182	.0818214	.2765116
#1	2890.767	25772.45	1155.555	2174.750	2329.083
#2	2865.208	25825.86	1164.171	2171.681	2319.656
#3	2871.744	25778.95	1183.429	2171.661	2316.820

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-08 Acquired: 01/09/2025 20:12:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0709015	.0047866	.5805047	.0274314	.0188126	60.07549	1.036776
Stddev	.0045999	.0030096	.0030298	.0032641	.0034061	.23724	.006501
%RSD	6.487778	62.87530	.5219205	11.89911	18.10552	.3949006	.6270685
#1	.0725767	.0057043	.5770735	.0274479	.0148885	59.89524	1.044167
#2	.0656987	.0014250	.5828117	.0306872	.0210043	59.98697	1.034221
#3	.0744290	.0072305	.5816288	.0241591	.0205451	60.34426	1.031942

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051446	.0046196	528.5375	.0931029	.0588916	.1324611	130.6974
Stddev	.0000999	.0001221	2.9104	.0009334	.0002702	.0021108	.7409
%RSD	1.941443	2.644121	.5506501	1.002553	.4587615	1.593494	.5668469
#1	.0050551	.0044910	530.7243	.0923008	.0588546	.1333895	131.5473
#2	.0051263	.0046335	525.2342	.0941274	.0591784	.1300453	130.1878
#3	.0052523	.0047341	529.6540	.0928804	.0586419	.1339486	130.3571

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.839992	112.9032	.1173651	.0047371	.9274064	.1307895	.7383326
Stddev	.043891	.2974	.0006700	.0018245	.0042601	.0014119	.0062292
%RSD	.4460509	.2634095	.5708862	38.51549	.4593580	1.079501	.8436820
#1	9.839027	113.1451	.1176892	.0060794	.9252833	.1305840	.7397217
#2	9.796591	112.5711	.1178114	.0026597	.9246250	.1294916	.7437499
#3	9.884357	112.9933	.1165946	.0054721	.9323109	.1322928	.7315261

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.371139	4.881558	-.376220	.0061462	1.916022	10.78727	.0333220
Stddev	.123165	.005777	.006579	.0008058	.003938	.10655	.0011286
%RSD	2.293082	.1183385	1.748756	13.10973	.2055520	.9877308	3.387048
#1	5.480250	4.888066	-.371148	.0053577	1.914782	10.83392	.0320551
#2	5.395581	4.879571	-.373857	.0069682	1.912852	10.66535	.0336910
#3	5.237586	4.877037	-.383654	.0061128	1.920431	10.86254	.0342200

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-08 Acquired: 01/09/2025 20:12:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5177408	.3607883	.0763553
Stddev	.0139576	.0007599	.0081921
%RSD	2.695861	.2106225	10.72890
#1	.5313565	.3599150	.0669329
#2	.5034648	.3611516	.0817907
#3	.5184009	.3612984	.0803422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2427.146	21616.00	1016.717	1829.955	2047.523
Stddev	3.930	99.86	4.710	18.028	4.306
%RSD	.1619328	.4619731	.4633006	.9851498	.2103114
#1	2431.508	21659.36	1014.395	1831.767	2052.469
#2	2423.881	21501.79	1022.138	1811.089	2044.613
#3	2426.048	21686.85	1013.619	1847.007	2045.486

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-09 Acquired: 01/09/2025 20:16:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0369167	.0215829	.3243019	-.001011	.0115983	42.43517
Stddev	.0024964	.0026149	.0008639	.008455	.0051854	.28586
%RSD	6.762304	12.11558	.2663784	836.2352	44.70848	.6736437
#1	.0340726	.0245770	.3233454	.002495	.0059806	42.24774
#2	.0379317	.0204238	.3245346	-.010655	.0126128	42.76419
#3	.0387457	.0197479	.3250255	.005127	.0162015	42.29358

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5047920	.0035758	.0036451	F 1220.063	.0796362	.0670344
Stddev	.0042604	.0001825	.0000097	4.191	.0009937	.0009803
%RSD	.8439868	5.104188	.2666846	.3435120	1.247852	1.462337
#1	.5009701	.0035105	.0036352	1216.885	.0785881	.0667162
#2	.5093854	.0037820	.0036546	1224.813	.0805647	.0662527
#3	.5040204	.0034350	.0036457	1218.492	.0797558	.0681342

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1827445	102.4799	8.037594	206.6258	.1152431	.0028384
Stddev	.0007232	.3767	.014235	1.1134	.0005234	.0006088
%RSD	.3957315	.3675430	.1771078	.5388276	.4541554	21.44947
#1	.1831527	102.0978	8.023789	206.1632	.1152799	.0030999
#2	.1819095	102.8508	8.052223	207.8959	.1157470	.0032727
#3	.1831712	102.4913	8.036769	205.8183	.1147022	.0021425

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.451557	.1079515	.6052462	7.824526	5.987456	-.248182
Stddev	.024605	.0007636	.0034465	.252969	.023159	.001790
%RSD	1.695080	.7073442	.5694370	3.233027	.3867948	.7212148
#1	1.452864	.1074972	.6021270	7.651950	5.975809	-.248320
#2	1.475483	.1088331	.6089462	8.114913	5.972433	-.246327
#3	1.426325	.1075241	.6046653	7.706713	6.014127	-.249898

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-09 Acquired: 01/09/2025 20:16:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019902	1.844328	8.360689	.0234324	.4242369	.9863183
Stddev	.0013457	.004511	.045334	.0020933	.0133632	.0064824
%RSD	67.61844	.2446041	.5422226	8.933302	3.149947	.6572327
#1	.0034501	1.847837	8.357242	.0242001	.4116197	.9809562
#2	.0007992	1.839239	8.407648	.0250335	.4228525	.9935224
#3	.0017213	1.845908	8.317178	.0210637	.4382384	.9844765

Elem	Li6707
Units	ppm
Avg	.0703011
Stddev	.0046420
%RSD	6.603025
#1	.0697199
#2	.0659771
#3	.0752064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2263.739	20282.49	982.6087	1717.017	1889.884
Stddev	5.620	97.08	4.0988	8.176	4.585
%RSD	.2482448	.4786229	.4171369	.4761704	.2425910
#1	2269.205	20349.14	986.1510	1726.394	1895.127
#2	2257.978	20327.21	978.1192	1713.277	1886.630
#3	2264.034	20171.11	983.5558	1711.380	1887.895

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-10 Acquired: 01/09/2025 20:20:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0746925	-.028050	.3024002	.0751148	.0291158	85.15740	.8124798
Stddev	.0028999	.001869	.0042425	.0043253	.0052837	.42801	.0084745
%RSD	3.882504	6.664575	1.402927	5.758301	18.14733	.5026102	1.043043
#1	.0738423	-.026804	.3022738	.0762265	.0232565	85.33141	.8044030
#2	.0723127	-.030199	.3067044	.0703422	.0335184	85.47099	.8213027
#3	.0779225	-.027146	.2982223	.0787759	.0305724	84.66979	.8117337

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056283	.0030276	33.00676	.1349363	.0221177	.1522039	138.6003
Stddev	.0003261	.0000410	.21387	.0015229	.0005456	.0010429	.8549
%RSD	5.793660	1.354185	.6479603	1.128584	2.466835	.6851717	.6167984
#1	.0052518	.0030229	32.84344	.1354577	.0227042	.1511994	137.9731
#2	.0058175	.0030708	33.24884	.1332212	.0216252	.1532813	139.5740
#3	.0058156	.0029892	32.92800	.1361299	.0220236	.1521310	138.2537

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.651238	22.65727	.1724071	.0041634	.5681841	.1730210	.4124305
Stddev	.033548	.29329	.0011370	.0004035	.0193088	.0005838	.0054538
%RSD	.7212729	1.294473	.6594561	9.691880	3.398336	.3373960	1.322348
#1	4.671884	22.81797	.1726007	.0045654	.5903863	.1723682	.4150907
#2	4.669302	22.83509	.1734348	.0037584	.5553147	.1734929	.4061571
#3	4.612529	22.31875	.1711857	.0041665	.5588513	.1732017	.4160437

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.737632	8.432800	-.474244	.0086973	3.066881	12.65805	.0264273
Stddev	.250377	.016478	.000642	.0009443	.009162	.06368	.0006833
%RSD	5.284846	.1954076	.1354206	10.85721	.2987560	.5030583	2.585484
#1	4.689199	8.431769	-.474156	.0079431	3.068458	12.63664	.0256485
#2	5.008687	8.449769	-.474926	.0083924	3.075152	12.72967	.0267074
#3	4.515010	8.416861	-.473651	.0097563	3.057032	12.60784	.0269260

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-10 Acquired: 01/09/2025 20:20:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7896480	-.057354	.0590310
Stddev	.0032921	.000823	.0092558
%RSD	.4169063	1.434553	15.67955
#1	.7872512	-.056404	.0484223
#2	.7882911	-.057855	.0654580
#3	.7934016	-.057802	.0632128

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2456.696	22356.66	999.8330	1878.937	2367.142
Stddev	8.357	116.01	4.3983	13.576	4.825
%RSD	.3401569	.5188993	.4399039	.7225151	.2038256
#1	2451.369	22236.17	997.3347	1866.208	2367.395
#2	2452.392	22366.21	997.2529	1893.225	2362.196
#3	2466.328	22467.60	1004.912	1877.377	2371.835

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-11 Acquired: 01/09/2025 20:24:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0640938	-.028026	.2862421	.0717047	.0281597	85.31549	.7488193
Stddev	.0053941	.003126	.0028158	.0083605	.0023577	.74699	.0077972
%RSD	8.415992	11.15270	.9836951	11.65968	8.372637	.8755669	1.041270
#1	.0698123	-.031451	.2866077	.0627535	.0308067	84.64861	.7403925
#2	.0590966	-.027297	.2888573	.0730490	.0262851	85.17516	.7557783
#3	.0633725	-.025328	.2832615	.0793117	.0273872	86.12269	.7502870

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057072	.0029447	30.01403	.1356619	.0186493	.1426179	137.2403
Stddev	.0001016	.0000695	.14809	.0006258	.0010589	.0018509	1.3130
%RSD	1.780306	2.359393	.4933911	.4612604	5.678128	1.297828	.9567192
#1	.0056633	.0028658	29.84324	.1356371	.0197942	.1417941	135.7283
#2	.0056350	.0029716	30.09223	.1350489	.0184485	.1413219	137.8992
#3	.0058234	.0029967	30.10663	.1362997	.0177051	.1447377	138.0934

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.304807	22.88053	.1769981	.0027208	.5145013	.1723648	.4194797
Stddev	.037235	.09524	.0006846	.0007887	.0157751	.0026252	.0034335
%RSD	.8649732	.4162492	.3867668	28.99016	3.066088	1.523040	.8185134
#1	4.267273	22.82269	.1773281	.0019071	.5072561	.1694041	.4170681
#2	4.305412	22.99045	.1774553	.0034820	.5036504	.1744083	.4179604
#3	4.341737	22.82844	.1762111	.0027732	.5325975	.1732820	.4234108

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.287402	7.683170	-.475822	.0081133	2.467393	13.14463	.0260077
Stddev	.257309	.035531	.008875	.0008734	.009361	.11469	.0017762
%RSD	6.001522	.4624583	1.865200	10.76445	.3793731	.8725333	6.829565
#1	4.233638	7.724191	-.466028	.0071899	2.478094	13.01324	.0279568
#2	4.061223	7.662030	-.478107	.0082242	2.460724	13.19595	.0244803
#3	4.567346	7.663287	-.483331	.0089260	2.463360	13.22470	.0255860

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-11 Acquired: 01/09/2025 20:24:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8838652	-.062923	.0643276
Stddev	.0082936	.001051	.0024143
%RSD	.9383307	1.670416	3.753158
#1	.8747783	-.061711	.0666654
#2	.8910268	-.063585	.0618435
#3	.8857906	-.063472	.0644738

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2428.805	21821.30	993.5586	1844.505	2399.867
Stddev	5.976	58.08	7.5143	7.005	6.058
%RSD	.2460646	.2661760	.7563000	.3797637	.2524378
#1	2426.586	21831.61	1001.807	1851.807	2395.006
#2	2435.574	21758.76	987.102	1843.868	2406.654
#3	2424.256	21873.54	991.767	1837.841	2397.942

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-12 Acquired: 01/09/2025 20:27:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0738919	-.010043	.2690712	.1683540	.0435409	109.6595
Stddev	.0039274	.004799	.0004994	.0040151	.0059225	.6749
%RSD	5.315028	47.78629	.1856175	2.384936	13.60213	.6154547
#1	.0727800	-.015019	.2686721	.1655804	.0367119	110.3134
#2	.0706403	-.005443	.2689103	.1729582	.0472715	109.6997
#3	.0782553	-.009666	.2696313	.1665234	.0466392	108.9654

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.009683	.0041782	.0038609	22.50522	.1435032	.1444031
Stddev	.003098	.0002711	.0000327	.17204	.0002272	.0024983
%RSD	.3068353	6.487519	.8472076	.7644320	.1583156	1.730122
#1	1.006988	.0043918	.0038241	22.70387	.1437636	.1425047
#2	1.013068	.0038733	.0038718	22.40477	.1433456	.1434712
#3	1.008993	.0042695	.0038868	22.40702	.1434004	.1472335

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0790422	221.8586	F 54.75867	21.06761	.1494301	.0118250
Stddev	.0018109	1.4529	.33941	.41624	.0008041	.0007817
%RSD	2.291034	.6548623	.6198270	1.975731	.5381220	6.610436
#1	.0811172	222.9416	54.99235	21.35212	.1485050	.0124144
#2	.0777806	222.4269	54.91430	20.58987	.1499607	.0109383
#3	.0782289	220.2076	54.36935	21.26082	.1498247	.0121223

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5834359	.2083974	.3934211	3.724303	F 11.44679	-.780941
Stddev	.0157775	.0022497	.0027029	.173976	.05521	.015922
%RSD	2.704237	1.079521	.6870310	4.671369	.4823622	2.038759
#1	.5669229	.2107291	.3907711	3.920745	11.38737	-.798818
#2	.5850276	.2082233	.3961740	3.662487	11.45649	-.775721
#3	.5983572	.2062398	.3933181	3.589676	11.49651	-.768285

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-12 Acquired: 01/09/2025 20:27:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMP5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0145256	1.397023	13.38941	.0287568	1.005699	-.147598
Stddev	.0001543	.016888	.15071	.0002986	.006207	.001581
%RSD	1.062281	1.208849	1.125614	1.038231	.6171504	1.070943
#1	.0145817	1.382194	13.56032	.0287220	1.012526	-.149011
#2	.0146439	1.393470	13.33237	.0290712	1.000398	-.147891
#3	.0143511	1.415405	13.27555	.0284771	1.004174	-.145891

Elem	Li6707
Units	ppm
Avg	.0573092
Stddev	.0064295
%RSD	11.21898
#1	.0499040
#2	.0614710
#3	.0605526

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2312.730	20965.61	955.3434	1774.292	2310.175
Stddev	15.471	91.35	10.7830	8.823	8.336
%RSD	.6689555	.4357111	1.128708	.4972618	.3608447
#1	2322.197	20884.72	943.1395	1780.420	2315.844
#2	2321.117	20947.42	959.3069	1764.179	2314.078
#3	2294.877	21064.68	963.5838	1778.276	2300.604

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-13 Acquired: 01/09/2025 20:31:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1739625	-.040143	.9896852	.1187229	.0539862	65.61469	.6989798
Stddev	.0059059	.001302	.0034117	.0083417	.0022398	.14151	.0049248
%RSD	3.394937	3.244194	.3447209	7.026217	4.148816	.2156689	.7045707
#1	.1740726	-.040894	.9902594	.1096503	.0558253	65.47140	.6969815
#2	.1680022	-.038639	.9860229	.1260612	.0514919	65.61831	.7045897
#3	.1798125	-.040896	.9927734	.1204571	.0546413	65.75436	.6953683

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065652	.0050106	44.99529	.1080331	.0152182	.2787025	222.6584
Stddev	.0003313	.0001419	.17026	.0004467	.0004162	.0009349	.1867
%RSD	5.045766	2.831046	.3783858	.4134590	2.734953	.3354359	.0838589
#1	.0061935	.0051630	44.93793	.1075371	.0150940	.2777755	222.5641
#2	.0066729	.0049863	45.18681	.1081584	.0148781	.2796450	222.8735
#3	.0068293	.0048825	44.86112	.1084037	.0156823	.2786870	222.5377

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.644974	20.43926	.1808234	.0060340	.9372409	.1709986	.5902185
Stddev	.034128	.20202	.0013599	.0007898	.0129607	.0012851	.0037186
%RSD	.3538450	.9883686	.7520782	13.08940	1.382857	.7515331	.6300303
#1	9.626403	20.29929	.1811892	.0067387	.9482742	.1712216	.5915815
#2	9.684361	20.67085	.1793179	.0051803	.9229676	.1721577	.5860107
#3	9.624159	20.34765	.1819630	.0061829	.9404809	.1696167	.5930632

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.407986	8.338574	-.751467	.0136959	2.725680	10.83168	.0507411
Stddev	.342413	.036817	.006058	.0006835	.012619	.04243	.0008718
%RSD	4.622210	.4415249	.8061510	4.990175	.4629770	.3917156	1.718202
#1	7.136299	8.319054	-.757889	.0131022	2.713704	10.78286	.0506270
#2	7.792598	8.315628	-.745854	.0135426	2.724478	10.85975	.0516643
#3	7.295060	8.381041	-.750657	.0144430	2.738857	10.85241	.0499319

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-13 Acquired: 01/09/2025 20:31:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7090717	-.120469	.0270927
Stddev	.0046329	.000697	.0061133
%RSD	.6533685	.5784475	22.56427
#1	.7142194	-.120613	.0333570
#2	.7052370	-.121083	.0267785
#3	.7077588	-.119712	.0211426

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2604.426	23565.96	1071.538	1983.305	2370.473
Stddev	6.114	90.34	3.220	12.696	7.318
%RSD	.2347600	.3833517	.3005492	.6401418	.3087092
#1	2599.845	23574.27	1070.460	1968.709	2367.637
#2	2611.368	23471.76	1068.995	1991.783	2378.784
#3	2602.063	23651.86	1075.159	1989.425	2364.997

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-14 Acquired: 01/09/2025 20:35:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1812170	-.022718	.8601912	.0858208	.0342241	61.03083	.7392910
Stddev	.0048154	.003684	.0025799	.0078776	.0018052	.19570	.0019969
%RSD	2.657231	16.21685	.2999241	9.179099	5.274659	.3206563	.2701054
#1	.1758513	-.025794	.8623330	.0768385	.0354445	60.97434	.7384580
#2	.1826370	-.023723	.8573271	.0890688	.0350773	60.86959	.7415695
#3	.1851626	-.018635	.8609134	.0915551	.0321504	61.24856	.7378455

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055983	.0048085	38.61686	.0913392	.0494621	.2457096	158.5700
Stddev	.0000327	.0000808	.13566	.0008131	.0004249	.0003390	.3606
%RSD	.5845055	1.680855	.3513029	.8902014	.8590311	.1379610	.2274336
#1	.0055768	.0047897	38.62399	.0922781	.0497875	.2460865	158.9551
#2	.0056360	.0047388	38.47778	.0908669	.0496174	.2454296	158.2402
#3	.0055822	.0048971	38.74882	.0908726	.0489814	.2456126	158.5148

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.70214	20.93711	.1248077	.0051599	.7786141	.1513627	.5438479
Stddev	.03434	.19495	.0012369	.0004634	.0117122	.0005860	.0005168
%RSD	.2703389	.9311057	.9910041	8.980424	1.504238	.3871552	.0950320
#1	12.67102	21.15654	.1255761	.0052635	.7733596	.1513156	.5444207
#2	12.69642	20.87090	.1254661	.0046536	.7920335	.1519709	.5437065
#3	12.73898	20.78389	.1233809	.0055628	.7704494	.1508018	.5434164

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.094919	5.329511	-.522528	.0081834	2.179393	10.31303	.0532800
Stddev	.329574	.004230	.004769	.0012783	.005077	.01159	.0002419
%RSD	4.645205	.0793685	.9126490	15.62074	.2329572	.1123802	.4540791
#1	6.725239	5.330589	-.522710	.0067410	2.175132	10.31082	.0534943
#2	7.357997	5.333098	-.527203	.0086333	2.185010	10.32556	.0530176
#3	7.201522	5.324846	-.517670	.0091759	2.178035	10.30269	.0533281

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-14 Acquired: 01/09/2025 20:35:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5810012	-.063984	.0196558
Stddev	.0081884	.000439	.0045113
%RSD	1.409364	.6856319	22.95160
#1	.5859657	-.064421	.0236990
#2	.5715500	-.063988	.0147897
#3	.5854878	-.063544	.0204786

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2684.009	24431.27	1097.216	2027.974	2387.758
Stddev	8.538	46.43	4.501	8.788	6.519
%RSD	.3181215	.1900627	.4102074	.4333218	.2730384
#1	2675.001	24391.05	1093.757	2017.877	2381.240
#2	2685.041	24482.08	1095.585	2032.148	2387.754
#3	2691.984	24420.67	1102.305	2033.897	2394.279

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-15 Acquired: 01/09/2025 20:39:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1480940	-.028529	.3624804	.1101545	.0406963	71.46132	.5848463
Stddev	.0066602	.002442	.0031794	.0036326	.0075786	1.35075	.0132939
%RSD	4.497263	8.560339	.8771323	3.297706	18.62231	1.890177	2.273055
#1	.1521683	-.031336	.3659237	.1143114	.0488249	72.72420	.5964841
#2	.1517056	-.027361	.3618616	.1085614	.0394392	71.62258	.5876961
#3	.1404081	-.026890	.3596558	.1075906	.0338249	70.03719	.5703586

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058049	.0040149	33.41394	.0954035	.0449651	.2242000	191.3908
Stddev	.0003576	.0000872	.58195	.0003980	.0015041	.0085085	3.6858
%RSD	6.160078	2.172353	1.741644	.4171340	3.345133	3.795049	1.925811
#1	.0060881	.0040428	34.04429	.0949939	.0436979	.2332400	194.8390
#2	.0059236	.0039172	33.30040	.0957887	.0445701	.2230122	191.8271
#3	.0054031	.0040848	32.89712	.0954281	.0466274	.2163478	187.5062

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.71416	24.28180	.1327441	.0070597	.7945471	.1620113	.4750625
Stddev	.28752	.42753	.0002547	.0009174	.0324385	.0059902	.0031865
%RSD	1.829706	1.760685	.1918640	12.99565	4.082640	3.697381	.6707489
#1	15.97532	24.71576	.1324914	.0076563	.8249786	.1678770	.4728273
#2	15.76111	24.26864	.1330007	.0075195	.7982443	.1622528	.4736488
#3	15.40605	23.86101	.1327402	.0060032	.7604184	.1559040	.4787112

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.065233	3.541505	-.638925	.0066628	1.090251	10.54589	.0249483
Stddev	.137935	.008437	.030326	.0003063	.005486	.41634	.0010332
%RSD	2.274190	.2382248	4.746391	4.596716	.5031462	3.947891	4.141399
#1	6.039594	3.535979	-.672051	.0069811	1.087896	10.99725	.0261397
#2	5.941917	3.537320	-.632191	.0063701	1.096520	10.46352	.0244072
#3	6.214189	3.551216	-.612532	.0066374	1.086335	10.17688	.0242980

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-15 Acquired: 01/09/2025 20:39:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.6456636	-.098962	.0379140
Stddev	.0194518	.002043	.0021484
%RSD	3.012679	2.064511	5.666447
#1	.6580842	-.101042	.0354395
#2	.6556604	-.098885	.0389998
#3	.6232463	-.096958	.0393028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.365	25051.78	1088.342	2055.768	2324.651
Stddev	9.456	36.73	42.107	13.287	11.710
%RSD	.3447030	.1466193	3.868934	.6463048	.5037418
#1	2735.119	25042.52	1041.445	2062.413	2313.884
#2	2753.687	25092.25	1100.677	2064.420	2337.119
#3	2741.290	25020.56	1122.904	2040.470	2322.949

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-16 Acquired: 01/09/2025 20:42:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1286439	.0023288	.3026992	.0592223	.0289240	59.50120	.5400826
Stddev	.0011499	.0041125	.0021503	.0071509	.0045121	.14696	.0068255
%RSD	.8938326	176.5952	.7103699	12.07459	15.59982	.2469891	1.263782
#1	.1273190	.0070469	.3008391	.0671261	.0240510	59.42031	.5322564
#2	.1292317	-.000496	.3022048	.0532011	.0297639	59.41245	.5431891
#3	.1293812	.000436	.3050536	.0573398	.0329571	59.67083	.5448022

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050268	.0056047	334.9216	.0854181	.0792234	.2080261	165.6529
Stddev	.0002340	.0001180	1.5426	.0004662	.0008848	.0008357	.7112
%RSD	4.655110	2.106182	.4605991	.5457584	1.116810	.4017490	.4293186
#1	.0050593	.0054716	334.6480	.0848808	.0791095	.2070824	165.4456
#2	.0047782	.0056457	333.5341	.0856571	.0801596	.2083228	165.0683
#3	.0052428	.0056967	336.5828	.0857162	.0784011	.2086729	166.4446

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.50240	24.16221	.1394054	.0069439	1.035970	.1317342	.4773498
Stddev	.12220	.19727	.0011235	.0009342	.012221	.0007103	.0024009
%RSD	.6981686	.8164433	.8059367	13.45313	1.179680	.5392090	.5029583
#1	17.48994	24.21504	.1405410	.0060733	1.040490	.1313177	.4801209
#2	17.38691	23.94391	.1382944	.0068276	1.045287	.1325544	.4758960
#3	17.63035	24.32769	.1393807	.0079308	1.022133	.1313305	.4760323

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.704059	3.135558	-.503578	.0077561	1.439068	7.756937	.0254042
Stddev	.072873	.003430	.001008	.0006031	.011252	.033598	.0007372
%RSD	1.549148	.1093807	.2001411	7.776298	.7819266	.4331367	2.901973
#1	4.630866	3.132753	-.504018	.0084444	1.436489	7.722860	.0250363
#2	4.704703	3.139382	-.504290	.0073201	1.429328	7.790035	.0249234
#3	4.776608	3.134540	-.502424	.0075037	1.451386	7.757917	.0262530

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-16 Acquired: 01/09/2025 20:42:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5378013	.2339963	.0261068
Stddev	.0069104	.0016933	.0046644
%RSD	1.284931	.7236278	17.86675
#1	.5379712	.2326187	.0250647
#2	.5308075	.2334835	.0220515
#3	.5446251	.2358867	.0312041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2718.641	25044.67	1132.111	2047.216	2157.259
Stddev	5.555	41.46	6.080	4.544	5.493
%RSD	.2043470	.1655383	.5370448	.2219632	.2546272
#1	2715.411	25004.96	1138.921	2042.469	2152.943
#2	2715.457	25041.37	1127.228	2047.654	2155.392
#3	2725.056	25087.68	1130.184	2051.525	2163.443

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-17 Acquired: 01/09/2025 20:46:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1180776	.0176410	.2838862	.0244254	.0140249	35.45462
Stddev	.0046668	.0014692	.0010920	.0138958	.0009687	.22592
%RSD	3.952289	8.328573	.3846740	56.89078	6.907312	.6372051
#1	.1206048	.0184639	.2851364	.0150542	.0137500	35.19602
#2	.1126922	.0159447	.2834037	.0403906	.0132233	35.55421
#3	.1209356	.0185143	.2831185	.0178315	.0151014	35.61363

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3849226	.0037240	.0040401	F 2501.285	.0558027	.1043101
Stddev	.0064265	.0002141	.0001860	22.952	.0007639	.0010470
%RSD	1.669542	5.749621	4.604692	.9176036	1.368842	1.003771
#1	.3816566	.0034822	.0039078	2475.245	.0566717	.1053580
#2	.3923262	.0038001	.0042528	2518.571	.0554991	.1032639
#3	.3807851	.0038897	.0039597	2510.040	.0552374	.1043085

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3046798	166.0420	15.35304	132.5041	.1574564	.0059580
Stddev	.0026874	1.5191	.12896	1.0089	.0009965	.0009343
%RSD	.8820498	.9149064	.8399321	.7613966	.6328718	15.68192
#1	.3019504	164.2904	15.20420	131.3455	.1586066	.0065711
#2	.3073231	167.0002	15.42359	132.9780	.1569094	.0064202
#3	.3047659	166.8353	15.43133	133.1888	.1568532	.0048827

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.336037	.0964206	.8118293	4.403211	7.556704	-.423756
Stddev	.019051	.0010039	.0077649	.112747	.014855	.007084
%RSD	.8155240	1.041140	.9564731	2.560560	.1965756	1.671696
#1	2.314656	.0968235	.8190779	4.287355	7.541493	-.415684
#2	2.351208	.0971605	.8036347	4.409710	7.557445	-.426646
#3	2.342247	.0952779	.8127754	4.512567	7.571174	-.428937

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-17 Acquired: 01/09/2025 20:46:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW4 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018818	9.172548	6.283309	.0290923	.4517557	2.923226
Stddev	.0013700	.019831	.050301	.0035700	.0043507	.022909
%RSD	72.80428	.2162047	.8005520	12.27112	.9630733	.7836905
#1	.0003873	9.162861	6.230013	.0268224	.4467389	2.897989
#2	.0030782	9.159422	6.329953	.0272472	.4540346	2.942711
#3	.0021799	9.195361	6.289963	.0332072	.4544936	2.928977

Elem	Li6707
Units	ppm
Avg	.0421148
Stddev	.0014858
%RSD	3.528074
#1	.0404317
#2	.0426682
#3	.0432446

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2253.202	20386.60	989.5964	1677.351	1752.723
Stddev	8.979	48.12	7.7635	9.420	5.310
%RSD	.3985044	.2360472	.7845089	.5616068	.3029642
#1	2247.245	20418.06	997.7535	1672.861	1747.337
#2	2263.530	20410.53	982.2980	1688.176	1757.954
#3	2248.832	20331.20	988.7375	1671.016	1752.879

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-18 Acquired: 01/09/2025 20:50:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0631892	-.027338	.2911214	.0765201	.0297481	86.66910	.7815310
Stddev	.0043281	.001267	.0027796	.0062146	.0017631	.68923	.0037429
%RSD	6.849367	4.633596	.9547827	8.121561	5.926802	.7952470	.4789143
#1	.0681833	-.026439	.2939451	.0828980	.0293996	87.06344	.7832388
#2	.0608532	-.026788	.2910310	.0761794	.0281852	87.07061	.7772388
#3	.0605309	-.028786	.2883882	.0704828	.0316594	85.87326	.7841153

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054016	.0025800	33.53382	.1218382	.0166379	.1512202	139.4625
Stddev	.0000903	.0001235	.15176	.0016892	.0004870	.0010761	.8753
%RSD	1.672478	4.787834	.4525695	1.386438	2.927020	.7115942	.6276454
#1	.0053331	.0025295	33.67197	.1208373	.0172002	.1507200	140.2035
#2	.0055040	.0027208	33.55812	.1237885	.0163545	.1504853	139.6873
#3	.0053677	.0024898	33.37137	.1208888	.0163589	.1524554	138.4967

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.603403	22.90733	.1683932	.0032167	.4685093	.1749749	.4174742
Stddev	.025380	.38287	.0020792	.0015193	.0148893	.0000492	.0013343
%RSD	.5513301	1.671394	1.234760	47.23120	3.178025	.0281489	.3196021
#1	4.630979	23.34546	.1705250	.0015280	.4842649	.1749282	.4169238
#2	4.581024	22.73950	.1682837	.0044727	.4546722	.1750264	.4165033
#3	4.598206	22.63704	.1663708	.0036492	.4665908	.1749702	.4189957

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.842172	8.343213	-.456364	.0086942	3.035444	12.92382	.0252179
Stddev	.059963	.053271	.004712	.0007365	.008546	.05100	.0011707
%RSD	1.238343	.6384947	1.032561	8.471603	.2815462	.3946269	4.642284
#1	4.817551	8.384584	-.456048	.0082529	3.043171	12.94974	.0253734
#2	4.798439	8.361951	-.451818	.0095444	3.036896	12.86507	.0263031
#3	4.910526	8.283105	-.461227	.0082852	3.026265	12.95666	.0239773

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-18 Acquired: 01/09/2025 20:50:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8943512	-.054944	.0609447
Stddev	.0131442	.000901	.0078082
%RSD	1.469695	1.639463	12.81197
#1	.8985839	-.055066	.0526263
#2	.8796121	-.055778	.0620920
#3	.9048576	-.053989	.0681157

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2411.017	22065.47	963.8605	1794.510	2381.319
Stddev	9.634	80.95	1.7390	9.076	4.500
%RSD	.3995806	.3668805	.1804169	.5057687	.1889694
#1	2399.896	22015.22	962.1091	1797.595	2376.824
#2	2416.335	22022.33	965.5868	1784.294	2381.309
#3	2416.820	22158.85	963.8858	1801.641	2385.824

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-19 Acquired: 01/09/2025 20:54:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1532160	-.034752	1.601028	.1094592	.0413709	93.37895	1.282916
Stddev	.0022575	.006842	.003811	.0048721	.0041841	.05292	.000819
%RSD	1.473412	19.68820	.2380095	4.451035	10.11363	.0566724	.0638145
#1	.1556085	-.026959	1.597697	.1045262	.0394596	93.39524	1.282137
#2	.1529159	-.039772	1.605183	.1142679	.0384837	93.42180	1.283769
#3	.1511235	-.037525	1.600204	.1095834	.0461693	93.31979	1.282841

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076843	.0060698	38.60637	.1422328	.0391976	.3878197	184.7478
Stddev	.0001231	.0001734	.17400	.0011704	.0005354	.0036784	.3369
%RSD	1.601528	2.856967	.4507061	.8229072	1.365819	.9484844	.1823712
#1	.0075423	.0060206	38.77843	.1427674	.0387796	.3854592	185.1165
#2	.0077595	.0062625	38.43049	.1408905	.0398010	.3920580	184.6710
#3	.0077512	.0059264	38.61018	.1430405	.0390122	.3859418	184.4560

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.878346	22.79539	.1456961	.0064834	.6298980	.2151013	1.156641
Stddev	.019335	.24836	.0012649	.0010418	.0344847	.0005411	.007768
%RSD	.2810940	1.089536	.8682128	16.06899	5.474655	.2515417	.6715661
#1	6.899228	22.88080	.1468971	.0076283	.6302969	.2156644	1.162174
#2	6.874744	22.51559	.1458154	.0055911	.6641815	.2150540	1.159987
#3	6.861066	22.98977	.1443757	.0062309	.5952155	.2145854	1.147761

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.514092	8.076876	-.607227	.0085478	1.821359	12.42291	.0749463
Stddev	.079551	.007620	.004260	.0011448	.009180	.03581	.0005058
%RSD	.8361393	.0943480	.7015234	13.39313	.5040406	.2882260	.6749153
#1	9.490622	8.085530	-.607784	.0075116	1.819754	12.39674	.0746299
#2	9.448916	8.073928	-.611182	.0083552	1.831236	12.46372	.0746793
#3	9.602738	8.071169	-.602717	.0097768	1.813086	12.40828	.0755297

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5198-19 Acquired: 01/09/2025 20:54:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHMW9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5782060	-.042865	.0540001
Stddev	.0072423	.000598	.0026246
%RSD	1.252540	1.395779	4.860353
#1	.5721055	-.042915	.0512624
#2	.5862098	-.043437	.0542432
#3	.5763025	-.042243	.0564947

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2468.172	22369.34	1008.557	1841.081	2350.328
Stddev	1.620	95.16	1.449	6.029	2.262
%RSD	.0656278	.4253872	.1436633	.3274439	.0962345
#1	2466.302	22427.09	1010.221	1834.385	2352.880
#2	2469.079	22421.41	1007.576	1842.783	2348.571
#3	2469.136	22259.51	1007.874	1846.076	2349.532

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-01 Acquired: 01/09/2025 20:58:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNE9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0942256	-.010802	.2617684	.0561679	.0338418	68.80846	.5597768
Stddev	.0061836	.002518	.0027673	.0097624	.0012124	.30456	.0051485
%RSD	6.562555	23.30961	1.057163	17.38070	3.582676	.4426234	.9197372
#1	.0896616	-.008571	.2645805	.0655445	.0327629	68.72223	.5539296
#2	.1012631	-.013532	.2616767	.0568982	.0351539	68.55631	.5636302
#3	.0917522	-.010302	.2590481	.0460608	.0336085	69.14684	.5617705

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062683	.0024005	260.9424	.0901715	.0648188	.3915704	164.4525
Stddev	.0001950	.0001715	.9707	.0000744	.0009996	.0020760	.4535
%RSD	3.111362	7.142612	.3719987	.0825532	1.542125	.5301735	.2757766
#1	.0061421	.0022037	260.3568	.0900986	.0641688	.3922732	164.4049
#2	.0061700	.0024805	260.4075	.0901686	.0643178	.3892342	164.0247
#3	.0064930	.0025174	262.0629	.0902474	.0659698	.3932037	164.9280

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.193898	53.85838	.1547688	.0048389	.9131144	.1583250	.2704944
Stddev	.014462	.18504	.0015041	.0012125	.0290345	.0010187	.0037131
%RSD	.1765004	.3435736	.9718322	25.05662	3.179726	.6434020	1.372699
#1	8.203073	53.78375	.1530429	.0034936	.9180953	.1577849	.2675026
#2	8.177227	53.72230	.1558002	.0051761	.8819116	.1576901	.2746499
#3	8.201395	54.06908	.1554632	.0058471	.9393363	.1595000	.2693306

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.198255	9.782793	-.513237	.0075194	.8513753	9.099425	.0284179
Stddev	.183554	.030803	.002308	.0001809	.0038019	.037921	.0002931
%RSD	3.531068	.3148696	.4497667	2.405528	.4465631	.4167409	1.031471
#1	4.995189	9.774300	-.511374	.0076769	.8552402	9.070650	.0283406
#2	5.247203	9.757127	-.512519	.0075594	.8512462	9.085229	.0287420
#3	5.352372	9.816952	-.515820	.0073219	.8476396	9.142396	.0281712

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: P5202-01 Acquired: 01/09/2025 20:58:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHNE9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7239835	.1566137	.0460073
Stddev	.0058347	.0013999	.0017684
%RSD	.8059199	.8938572	3.843751
#1	.7280155	.1562492	.0451717
#2	.7172930	.1554321	.0448115
#3	.7266421	.1581598	.0480386

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2740.894	24804.33	1131.710	2051.194	2155.918
Stddev	13.076	46.14	6.509	7.163	9.801
%RSD	.4770761	.1860109	.5751657	.3492023	.4545963
#1	2753.905	24751.86	1133.396	2051.391	2163.557
#2	2741.026	24822.53	1137.211	2043.934	2159.328
#3	2727.753	24838.58	1124.524	2058.255	2144.867

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV141 Acquired: 01/09/2025 21:01:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV141 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.841878	4.664747	23.80993	4.881245	4.783949	395.5847
Stddev	.014925	.027608	.15536	.037499	.024428	4.3743
%RSD	.3082576	.5918383	.6525003	.7682245	.5106296	1.105792
#1	4.838882	4.696238	23.98922	4.923966	4.811423	399.1815
#2	4.858074	4.653296	23.71494	4.853772	4.764677	390.7151
#3	4.828678	4.644707	23.72563	4.865997	4.775748	396.8575

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.03761	.5062103	2.407973	399.2989	15.02807	2.312368
Stddev	.10145	.0109999	.018217	4.2362	.14079	.016507
%RSD	1.010695	2.172988	.7565280	1.060911	.9368449	.7138444
#1	10.13310	.5108097	2.429003	403.2655	15.16659	2.331285
#2	9.93110	.4936572	2.397032	394.8367	15.03249	2.300888
#3	10.04862	.5141640	2.397885	399.7945	14.88512	2.304931

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.85842	396.1422	14.62916	399.6169	2.423713	1.234706
Stddev	.30340	3.2213	.12792	3.6307	.018200	.009687
%RSD	2.041954	.8131752	.8744236	.9085491	.7509099	.7845843
#1	14.99232	397.9158	14.69279	402.6368	2.444442	1.245304
#2	14.51110	392.4239	14.48190	395.5886	2.410355	1.232506
#3	15.07184	398.0870	14.71279	400.6254	2.416342	1.226308

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	419.3840	2.461749	14.31537	155.3998	4.749641	F 4.076999
Stddev	6.5526	.043566	.24168	1.9564	.030421	.076965
%RSD	1.562437	1.769713	1.688281	1.258971	.6404978	1.887779
#1	418.5266	2.481419	14.41754	156.1577	4.783989	4.103247
#2	413.3023	2.411817	14.48919	153.1778	4.726093	3.990343
#3	426.3231	2.492012	14.03938	156.8638	4.738841	4.137405

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCV141 Acquired: 01/09/2025 21:01:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV141 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.736532	4.790210	4.817077	4.815796	4.920358	4.727569
Stddev	.039610	.035349	.109824	.032081	.062008	.050707
%RSD	.8362572	.7379516	2.279896	.6661645	1.260243	1.072571
#1	4.781436	4.828480	4.871344	4.852796	4.984048	4.772431
#2	4.706552	4.758781	4.690683	4.795740	4.860181	4.672554
#3	4.721609	4.783368	4.889205	4.798850	4.916845	4.737722

Elem	Li6707
Units	ppm
Avg	5.034857
Stddev	.040337
%RSD	.8011452
#1	5.062062
#2	4.988514
#3	5.053997

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1836.806	17047.57	811.0984	1380.984	1820.390
Stddev	15.491	252.43	8.6310	30.755	12.521
%RSD	.8433607	1.480731	1.064114	2.227029	.6877992
#1	1820.210	16957.11	807.0959	1375.329	1806.682
#2	1850.883	16852.84	821.0040	1353.449	1831.224
#3	1839.326	17332.77	805.1952	1414.174	1823.265

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

Sample Name: CCB141 Acquired: 01/09/2025 21:05:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB141 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004187	.0019337	-.001504	-.009415	-.004751	-.012557
Stddev	.002701	.0027635	.002272	.006373	.000521	.004191
%RSD	64.49197	142.9174	151.0208	67.68663	10.95701	33.37362
#1	-.003472	.0003017	-.003947	-.004949	-.004420	-.017290
#2	-.001917	.0051244	.000545	-.006583	-.005351	-.009317
#3	-.007174	.0003748	-.001111	-.016712	-.004483	-.011065

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003551	-.000369	.0000320	.0183898	-.000236	.0001208
Stddev	.002860	.000328	.0001394	.0526860	.000168	.0004702
%RSD	80.55259	88.98459	435.5980	286.4957	70.98582	389.3404
#1	-.000778	-.000603	-.000060	-.031563	-.000089	-.000338
#2	-.006491	.000006	.000192	.013294	-.000201	.000098
#3	-.003383	-.000509	-.000037	.073439	-.000419	.000602

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009000	.0077679	.0012882	-.132535	.0011174	-.001691
Stddev	.0013373	.0872818	.0037478	.251260	.0011155	.000720
%RSD	148.5944	1123.622	290.9354	189.5800	99.83573	42.56184
#1	.0020501	-.026414	-.003006	.154880	.0019298	-.001443
#2	-.000567	.106967	.002970	-.241948	-.000155	-.001128
#3	.001217	-.057250	.003901	-.310538	.001577	-.002502

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0190471	.0014527	.0014823	.9294811	-.002245	.0195612
Stddev	.0134470	.0009530	.0010378	.4412402	.001568	.0023549
%RSD	70.59865	65.60467	70.01239	47.47167	69.84567	12.03872
#1	.0043503	.0006396	.0014540	1.124602	-.002559	.0220869
#2	.0307343	.0012169	.0025338	1.239522	-.000544	.0191707
#3	.0220569	.0025015	.0004589	.424319	-.003633	.0174259

Reviewed By:mohan
On:1/12/2025 8:52:46 PM
Inst Id :P5

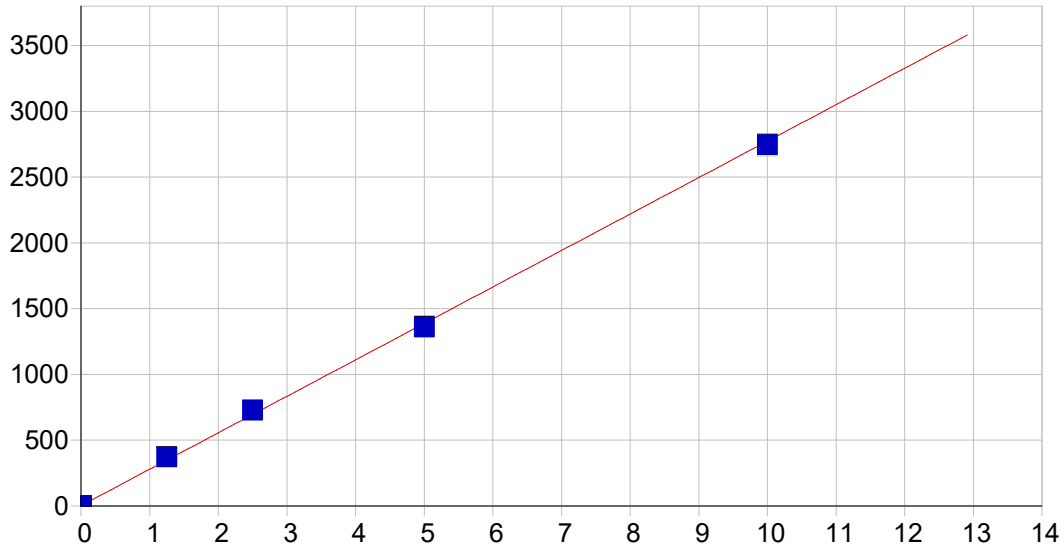
Sample Name: CCB141 Acquired: 01/09/2025 21:05:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v95) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB141 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002105	.0000894	.0014523	-.001196	.0067154	.0002940
Stddev	.0003039	.0034857	.0004626	.000523	.0015818	.0003970
%RSD	144.4035	3900.878	31.85584	43.67200	23.55543	135.0061
#1	.0003284	.0040037	.0017057	-.001745	.0075752	-.000164
#2	.0004378	-.002679	.0009183	-.001139	.0048899	.000527
#3	-.000135	-.001056	.0017329	-.000705	.0076812	.000519

Elem	Li6707
Units	ppm
Avg	F .0468155
Stddev	.0130703
%RSD	27.91864
#1	.0615411
#2	.0423159
#3	.0365894

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2198.949	20317.97	883.6323	1673.675	2581.486
Stddev	6.284	205.14	2.3558	21.854	8.500
%RSD	.2857807	1.009659	.2666014	1.305772	.3292729
#1	2204.396	20196.08	884.9849	1658.911	2590.374
#2	2200.378	20203.01	880.9121	1663.333	2580.648
#3	2192.074	20554.81	885.0000	1698.781	2573.436

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



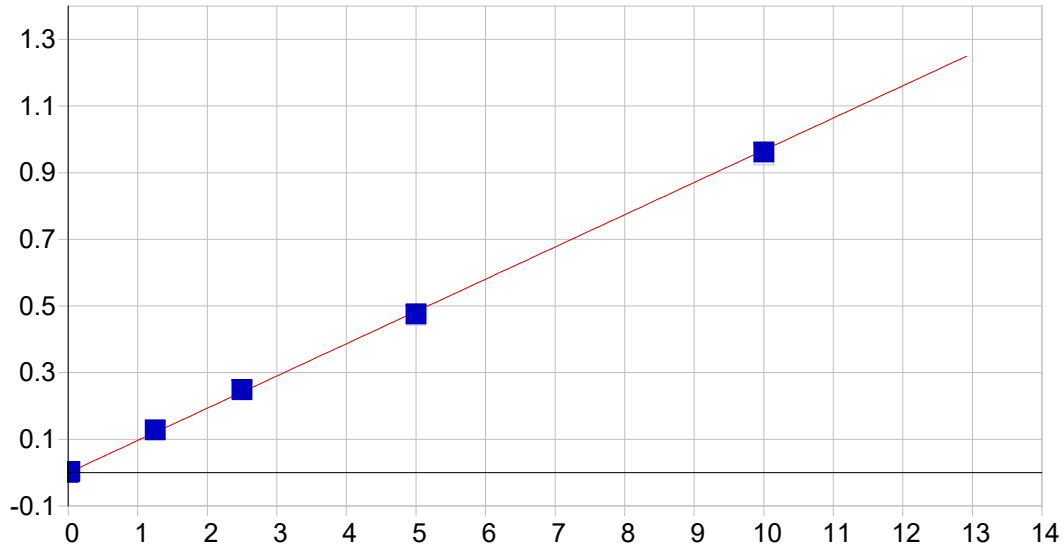
As 189.042 {478}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2.196899	Re-Slope:	1.000000
A1 (Gain):	277.154331	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999609	Status:	OK.
Std Error of Est:	0.129422		
Predicted MDL:	0.004079		
Predicted MQL:	0.013596		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	2.1971	.611	1
S1	.01000	.00856	-.001	-14.4	4.5668	.271	1
S2	1.2500	1.3347	.085	6.78	370.77	2.56	1
S3	2.5000	2.6181	.118	4.72	725.11	2.81	1
S4	5.0000	4.9003	-.100	-1.99	1354.9	6.27	1
S5	10.000	9.8983	-.102	-1.02	2734.8	6.27	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



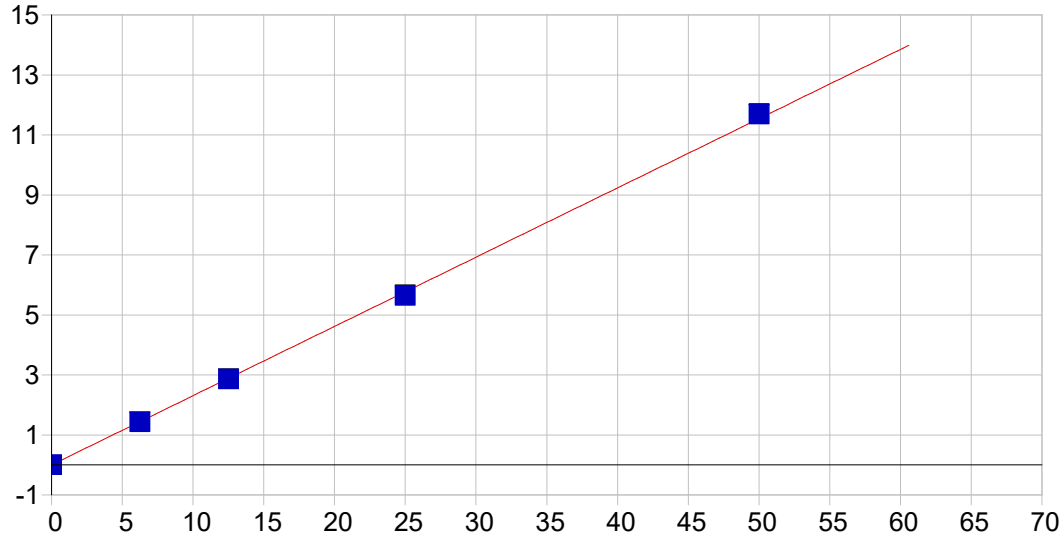
Tl 190.856 {477}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000413	Re-Slope:	1.000000
A1 (Gain):	0.096777	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999772	Status:	OK.
Std Error of Est:	0.000054		
Predicted MDL:	0.002283		
Predicted MQL:	0.007611		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00041	.000	1
S1	.02500	.02826	.003	13.1	.00224	.000	1
S2	1.2500	1.3191	.069	5.52	.12620	.000	1
S3	2.5000	2.5767	.077	3.07	.24688	.001	1
S4	5.0000	4.9171	-.083	-1.66	.47130	.001	1
S5	10.000	9.9339	-.066	-.661	.95266	.002	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



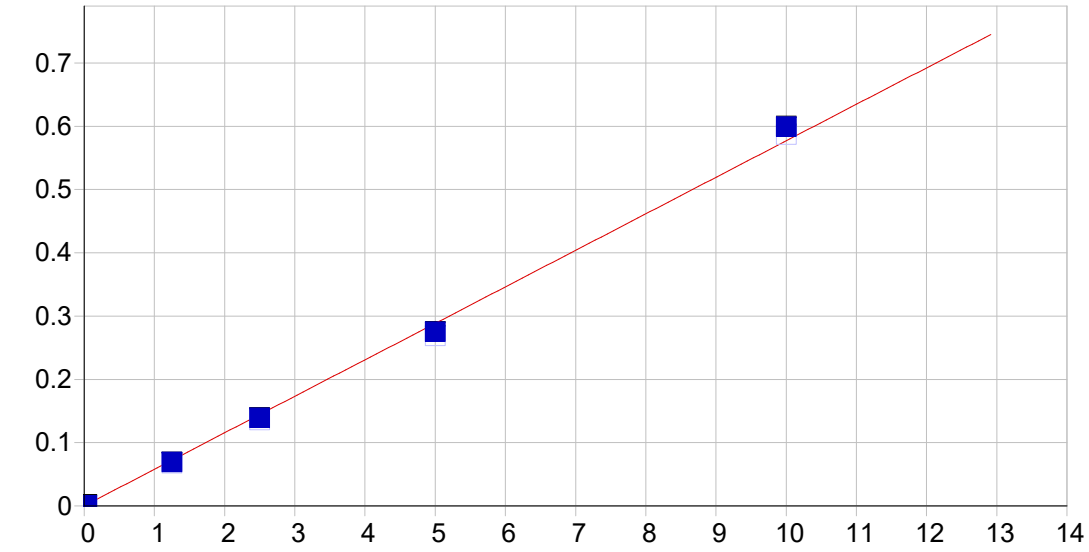
Pb 220.353 {453}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000068	Re-Slope:	1.000000
A1 (Gain):	0.230831	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999882	Status:	OK.
Std Error of Est:	0.000133		
Predicted MDL:	0.002428		
Predicted MQL:	0.008094		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00007	.000	1
S1	.01000	.00727	-.003	-27.3	.00160	.000	1
S2	6.2500	6.2084	-.042	-.666	1.4311	.003	1
S3	12.500	12.401	-.099	-.789	2.8587	.005	1
S4	25.000	24.471	-.529	-2.11	5.6411	.014	1
S5	50.000	50.672	.672	1.34	11.681	.006	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



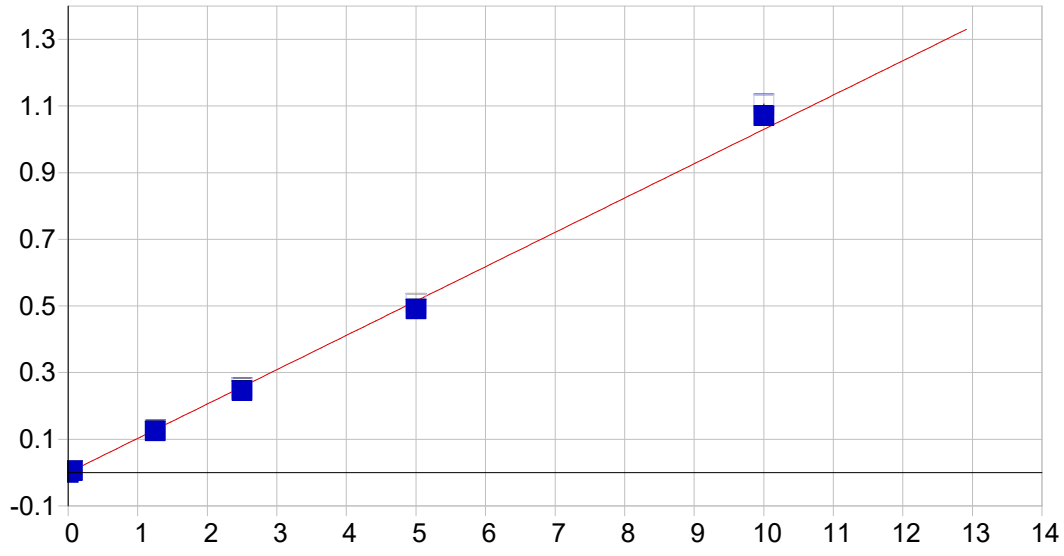
Se 196.090 {472}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000144	Re-Slope:	1.000000
A1 (Gain):	0.057684	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999062	Status:	OK.
Std Error of Est:	0.000077		
Predicted MDL:	0.005043		
Predicted MQL:	0.016810		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00014	.000	1
S1	.03500	.02736	-.008	-21.8	.00172	.000	1
S2	1.2500	1.1956	-.054	-4.35	.06749	.000	1
S3	2.5000	2.4061	-.094	-3.75	.13569	.000	1
S4	5.0000	4.7661	-.234	-4.68	.26858	.001	1
S5	10.000	10.390	.390	3.90	.58650	.001	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



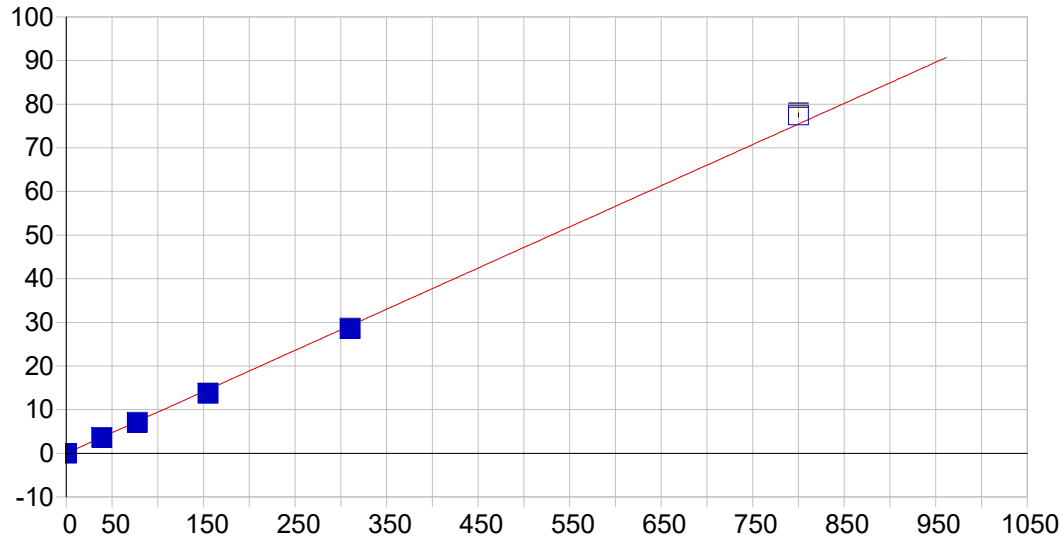
Sb 206.833 {463}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000219	Re-Slope:	1.000000
A1 (Gain):	0.103014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999156	Status:	OK.
Std Error of Est:	0.000180		
Predicted MDL:	0.003762		
Predicted MQL:	0.012539		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00022	.001	1
S1	.06000	.05392	-.006	-10.1	.00534	.000	1
S2	1.2500	1.2082	-.042	-3.34	.12855	.001	1
S3	2.5000	2.3882	-.112	-4.47	.25441	.000	1
S4	5.0000	4.7632	-.237	-4.74	.50768	.000	1
S5	10.000	10.396	.396	3.96	1.1052	.001	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



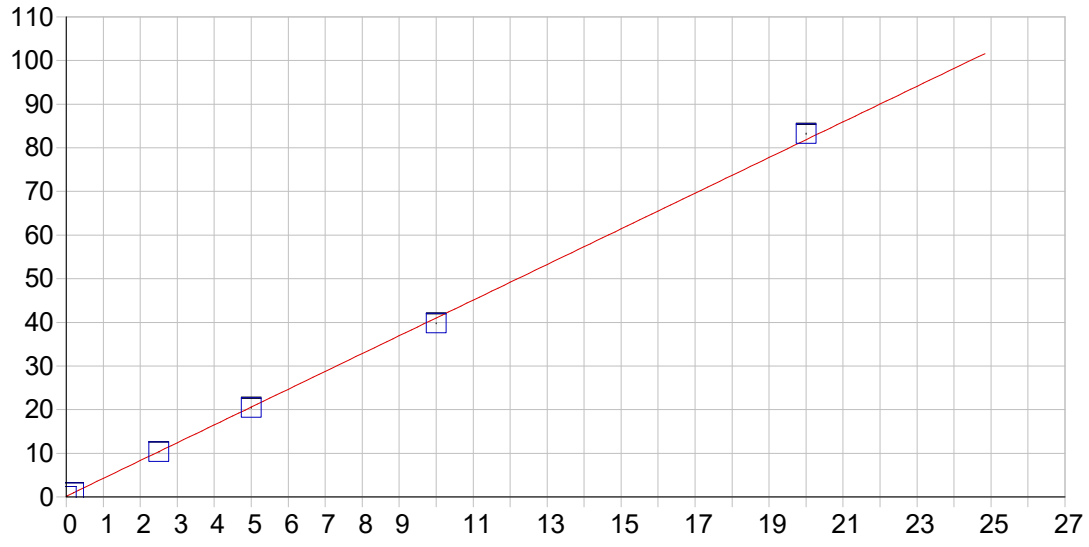
Al 396.152 { 85}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001122	Re-Slope:	1.000000
A1 (Gain):	0.094327	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999439	Status:	OK.
Std Error of Est:	0.001966		
Predicted MDL:	0.040860		
Predicted MQL:	0.136200		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00112	.003	1
S1	.20000	.20567	.006	2.83	.02055	.004	1
S2	38.750	37.622	-1.13	-2.91	3.5538	.005	1
S3	77.500	74.662	-2.84	-3.66	7.0516	.044	1
S4	155.00	145.31	-9.69	-6.25	13.724	.033	1
S5	310.00	301.85	-8.15	-2.63	28.505	.162	1
S6	800.00	821.83	21.8	2.73	77.522	.474	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



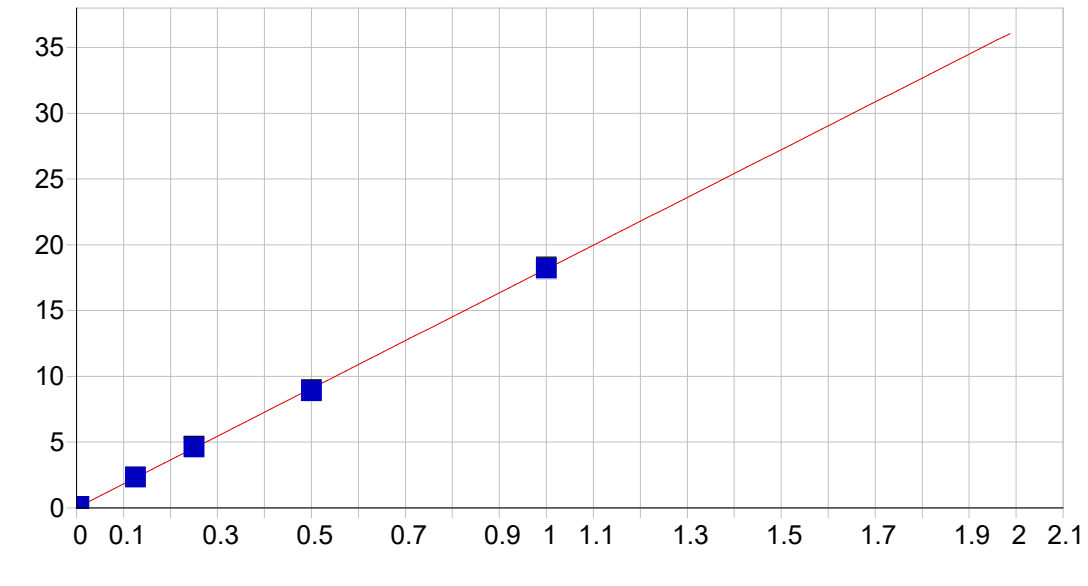
Ba 493.409 { 68}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.162165	Re-Slope:	1.000000
A1 (Gain):	4.084690	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999802	Status:	OK.
Std Error of Est:	0.008639		
Predicted MDL:	0.002525		
Predicted MQL:	0.008415		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.16218	.009	1
S1	.20000	.20142	.001	.712	.98492	.007	1
S2	2.5000	2.4903	-.010	-.389	10.334	.022	1
S3	5.0000	4.9670	-.033	-.661	20.451	.131	1
S4	10.000	9.7018	-.298	-2.98	39.791	.133	1
S5	20.000	20.340	.340	1.70	83.243	.126	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



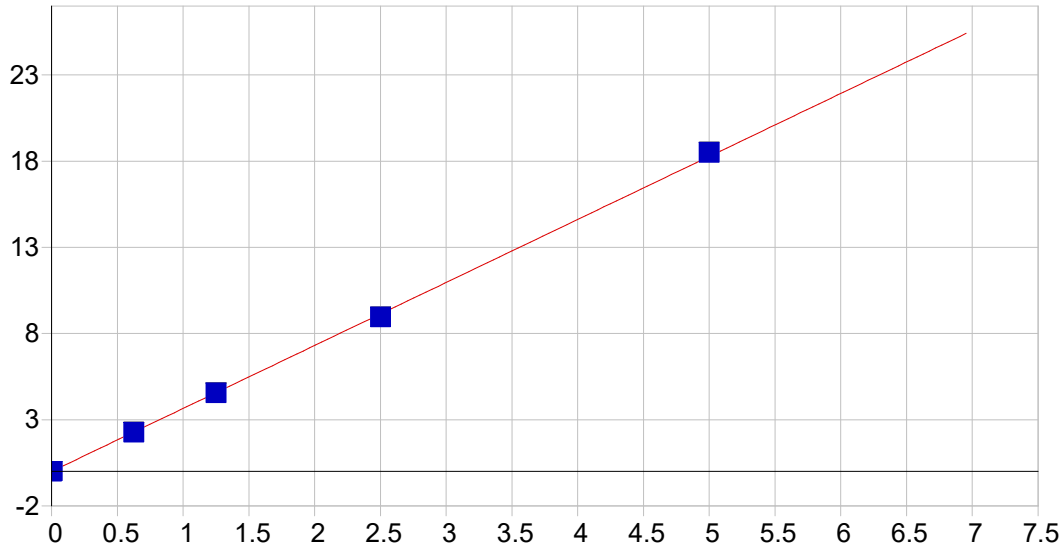
Be 234.861 {144}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.013138	Re-Slope:	1.000000
A1 (Gain):	18.146474	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.000950		
Predicted MDL:	0.000169		
Predicted MQL:	0.000564		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.01313	.005	1
S1	.00500	.00516	.000	3.13	.10662	.004	1
S2	.12500	.12771	.003	2.17	2.3202	.010	1
S3	.25000	.25445	.004	1.78	4.6097	.056	1
S4	.50000	.48966	-.010	-2.07	8.8571	.086	1
S5	1.0000	1.0030	.003	.303	18.131	.106	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



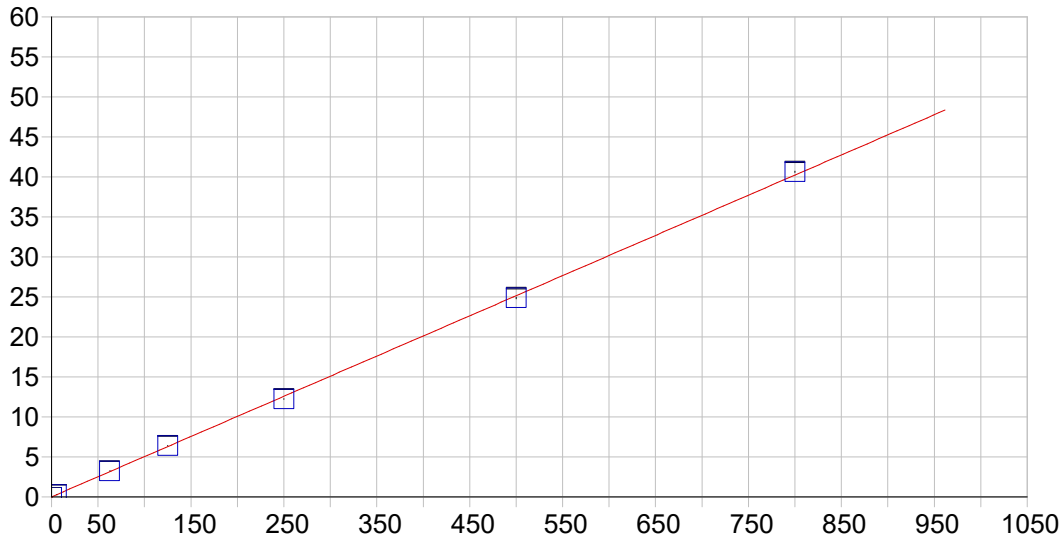
Cd 214.438 {457}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	3.654875	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999901	Status:	OK.
Std Error of Est:	0.000433		
Predicted MDL:	0.000084		
Predicted MQL:	0.000279		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00002	.000	1
S1	.00500	.00459	-.000	-8.12	.01688	.000	1
S2	.62500	.62066	-.004	-.694	2.2720	.005	1
S3	1.2500	1.2446	-.005	-.430	4.5560	.003	1
S4	2.5000	2.4490	-.051	-2.04	8.9650	.022	1
S5	5.0000	5.0611	.061	1.22	18.526	.009	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



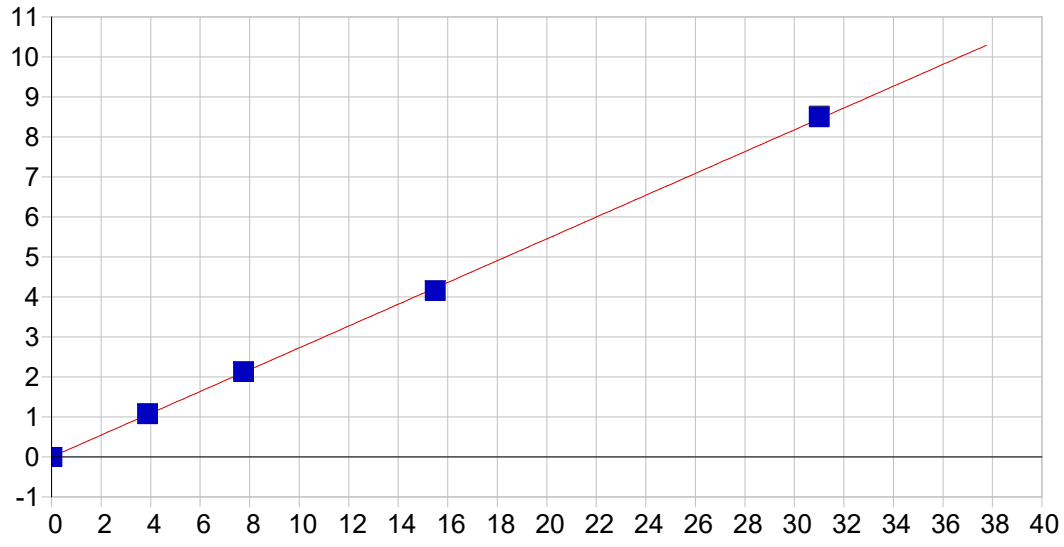
Ca 373.690 { 90}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.009401	Re-Slope:	1.000000
A1 (Gain):	0.050277	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999882	Status:	OK.
Std Error of Est:	0.002700		
Predicted MDL:	0.053053		
Predicted MQL:	0.176842		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00034	-.000	.000	.00938	.003	1
S1	5.0000	5.2678	.268	5.36	.27425	.003	1
S2	62.500	64.118	1.62	2.59	3.2331	.007	1
S3	125.00	127.07	2.07	1.66	6.3982	.042	1
S4	250.00	243.39	-6.61	-2.65	12.246	.033	1
S5	500.00	494.42	-5.58	-1.12	24.867	.096	1
S6	800.00	808.23	8.23	1.03	40.645	.076	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



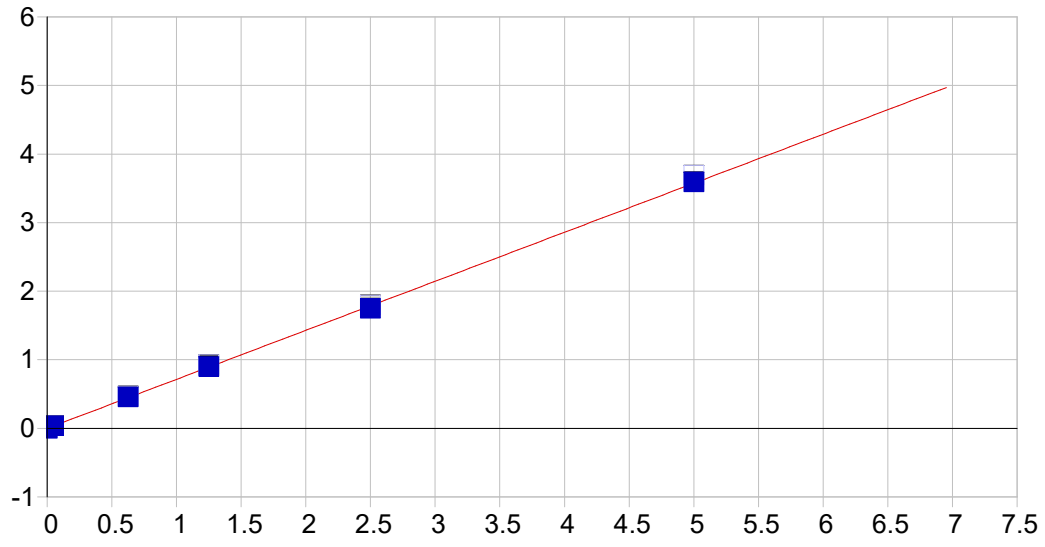
Cr 267.716 {126}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000312	Re-Slope:	1.000000
A1 (Gain):	0.272568	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.000089		
Predicted MDL:	0.000818		
Predicted MQL:	0.002727		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00031	.000	1
S1	.01000	.01133	.001	13.3	.00278	.000	1
S2	3.8750	3.9355	.061	1.56	1.0732	.010	1
S3	7.7500	7.8037	.054	.692	2.1284	.007	1
S4	15.500	15.228	-.272	-1.76	4.1536	.007	1
S5	31.000	31.157	.157	.505	8.4986	.018	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



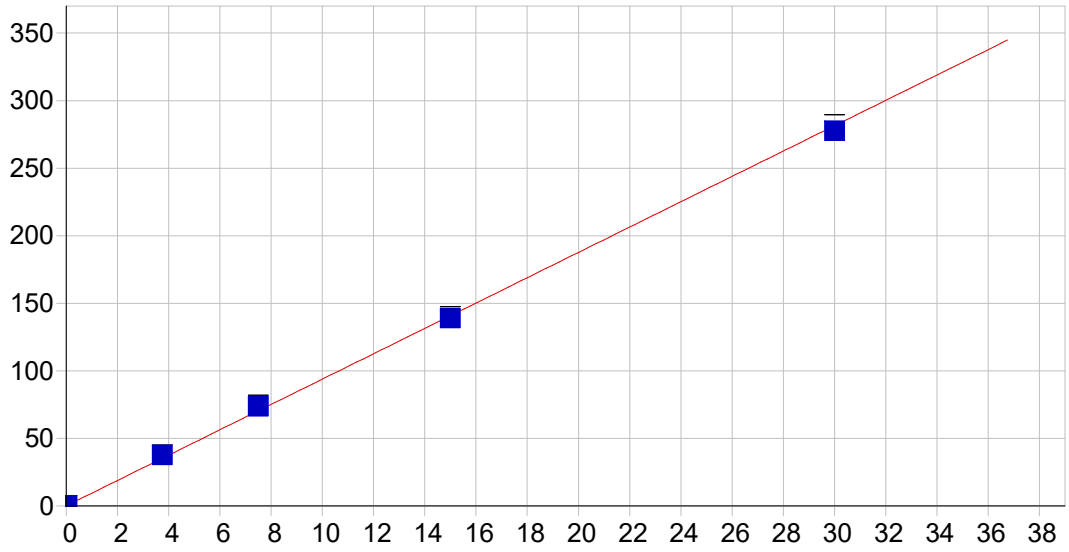
Co 228.616 {448}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000754	Re-Slope:	1.000000
A1 (Gain):	0.714957	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.000268		
Predicted MDL:	0.000424		
Predicted MQL:	0.001412		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00076	.000	1
S1	.05000	.05031	.000	.623	.03536	.000	1
S2	.62500	.64131	.016	2.61	.46992	.002	1
S3	1.2500	1.2613	.011	.904	.92535	.001	1
S4	2.5000	2.4452	-.055	-2.19	1.7961	.004	1
S5	5.0000	5.0269	.027	.538	3.6906	.001	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



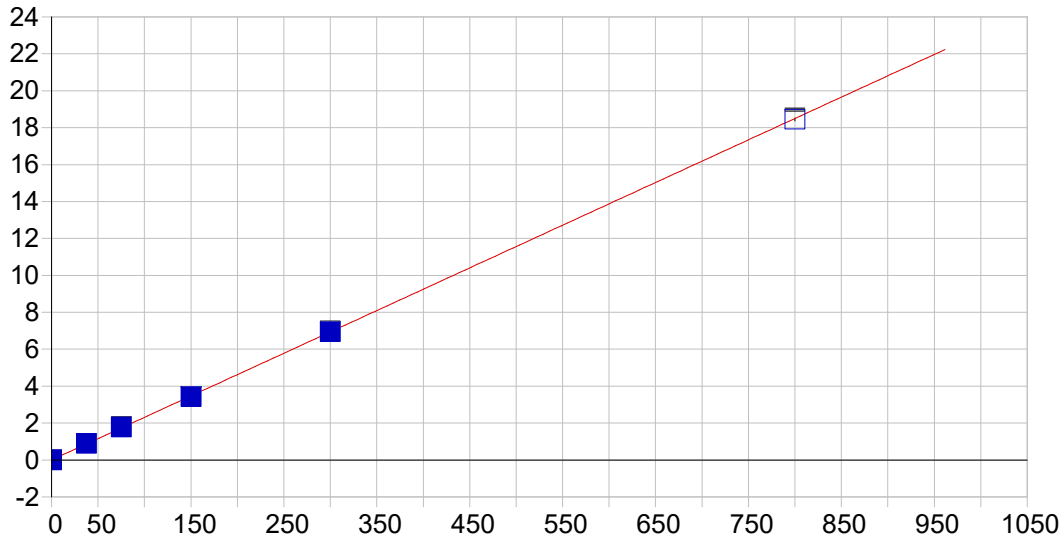
Cu 324.754 {104}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.082650	Re-Slope:	1.000000
A1 (Gain):	9.378759	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999633	Status:	OK.
Std Error of Est:	0.011671		
Predicted MDL:	0.000723		
Predicted MQL:	0.002409		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.08258	.002	1
S1	.02500	.02994	.005	19.7	.36309	.013	1
S2	3.7500	4.0027	.253	6.74	37.619	.182	1
S3	7.5000	7.8399	.340	4.53	73.603	.918	1
S4	15.000	14.805	-.195	-1.30	138.92	1.20	1
S5	30.000	29.597	-.403	-1.34	277.64	4.59	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



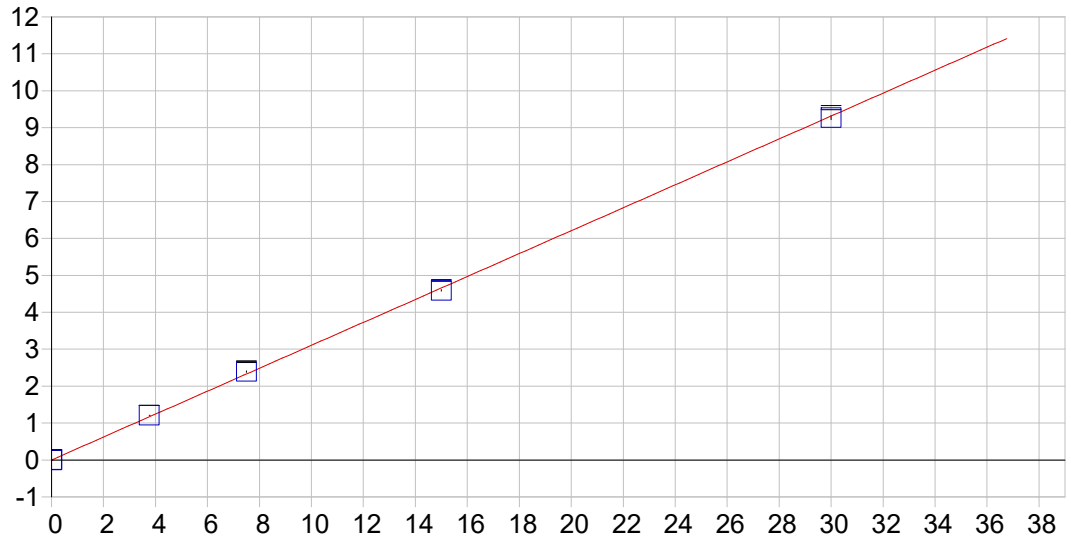
Fe 259.837 {130}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000687	Re-Slope:	1.000000
A1 (Gain):	0.023123	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999944	Status:	OK.
Std Error of Est:	0.000107		
Predicted MDL:	0.043247		
Predicted MQL:	0.144157		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	-.00069	.001	1
S1	.10000	.12888	.029	28.9	.00229	.001	1
S2	37.500	38.843	1.34	3.58	.89768	.001	1
S3	75.000	77.273	2.27	3.03	1.7865	.017	1
S4	150.00	148.12	-1.88	-1.25	3.4251	.012	1
S5	300.00	300.18	.180	.060	6.9420	.031	1
S6	800.00	798.06	-1.94	-.243	18.453	.078	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



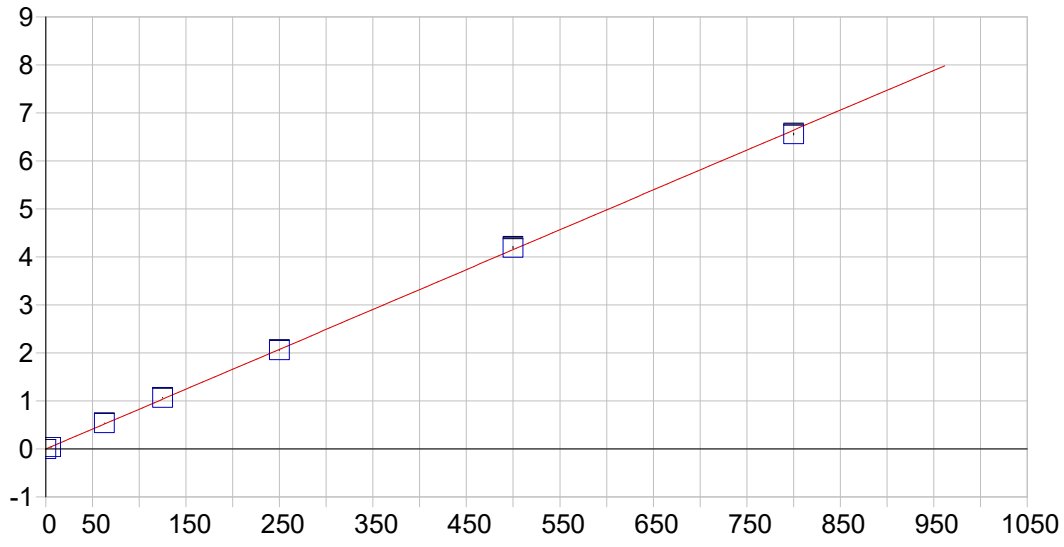
Mn 257.610 {131}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000602	Re-Slope:	1.000000
A1 (Gain):	0.310495	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999870	Status:	OK.
Std Error of Est:	0.000178		
Predicted MDL:	0.002942		
Predicted MQL:	0.009807		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00060	.001	1
S1	.01500	.01347	-.002	-10.2	.00478	.001	1
S2	3.7500	3.8856	.136	3.62	1.2071	.001	1
S3	7.5000	7.7113	.211	2.82	2.3949	.024	1
S4	15.000	14.788	-.212	-1.41	4.5924	.020	1
S5	30.000	29.866	-.134	-.446	9.2739	.055	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



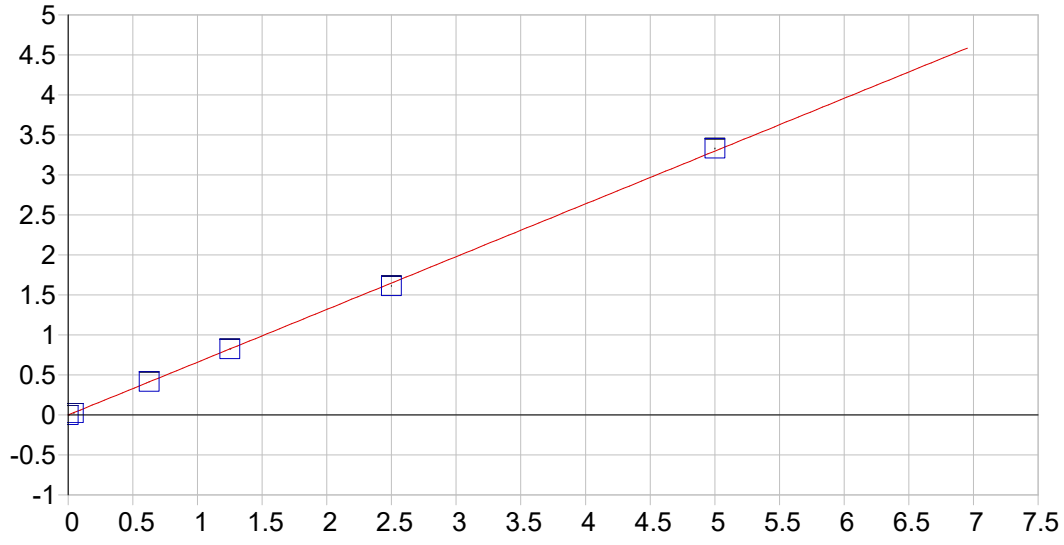
Mg 279.079 {121}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001630	Re-Slope:	1.000000
A1 (Gain):	0.008304	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999889	Status:	OK.
Std Error of Est:	0.000432		
Predicted MDL:	0.138851		
Predicted MQL:	0.462835		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00036	-.000	.000	-.00163	.002	1
S1	5.0000	5.0741	.074	1.48	.04050	.001	1
S2	62.500	64.923	2.42	3.88	.53748	.001	1
S3	125.00	128.56	3.56	2.85	1.0660	.007	1
S4	250.00	247.93	-2.07	-.829	2.0571	.006	1
S5	500.00	505.51	5.51	1.10	4.1961	.025	1
S6	800.00	790.50	-9.50	-1.19	6.5625	.020	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



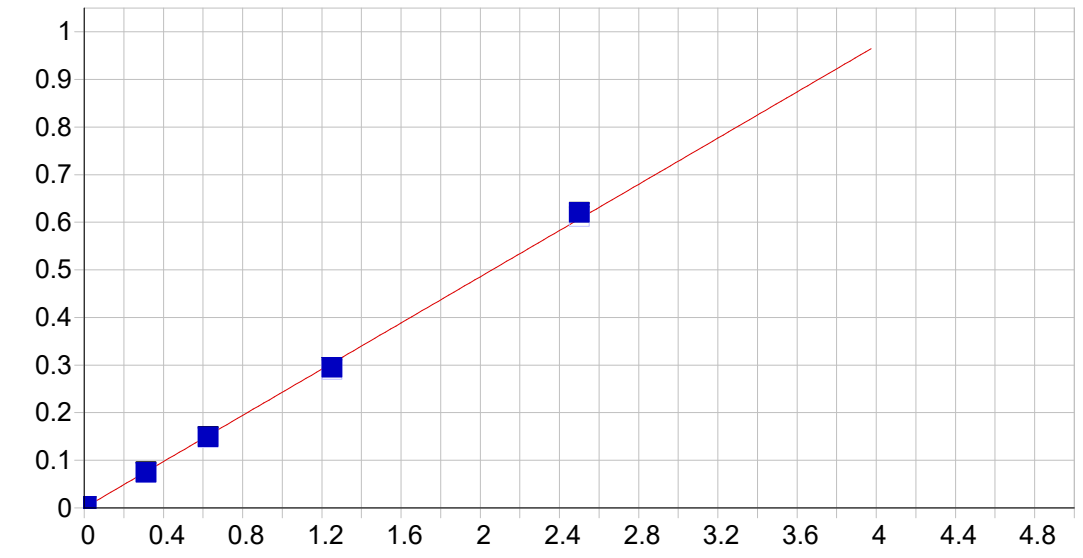
Ni 231.604 {446}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000701	Re-Slope:	1.000000
A1 (Gain):	0.659606	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.000215		
Predicted MDL:	0.000660		
Predicted MQL:	0.002201		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00070	.000	1
S1	.04000	.03783	-.002	-5.43	.02425	.000	1
S2	.62500	.62875	.004	.600	.41403	.001	1
S3	1.2500	1.2515	.002	.120	.82480	.001	1
S4	2.5000	2.4469	-.053	-2.12	1.6133	.004	1
S5	5.0000	5.0500	.050	.999	3.3303	.005	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



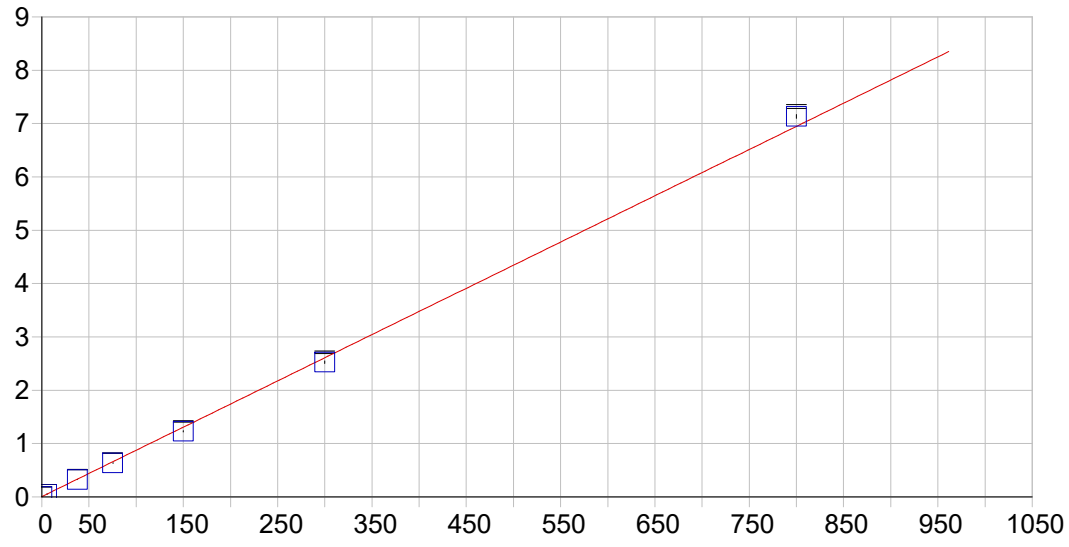
Ag 328.068 {103}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000383	Re-Slope:	1.000000
A1 (Gain):	0.242642	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999716	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.001543		
Predicted MQL:	0.005143		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00038	.000	1
S1	.01000	.01021	.000	2.11	.00286	.001	1
S2	.31250	.30664	-.006	-1.88	.07369	.001	1
S3	.62500	.61300	-.012	-1.92	.14694	.001	1
S4	1.2500	1.2134	-.037	-2.92	.29045	.000	1
S5	2.5000	2.5542	.054	2.17	.61140	.001	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



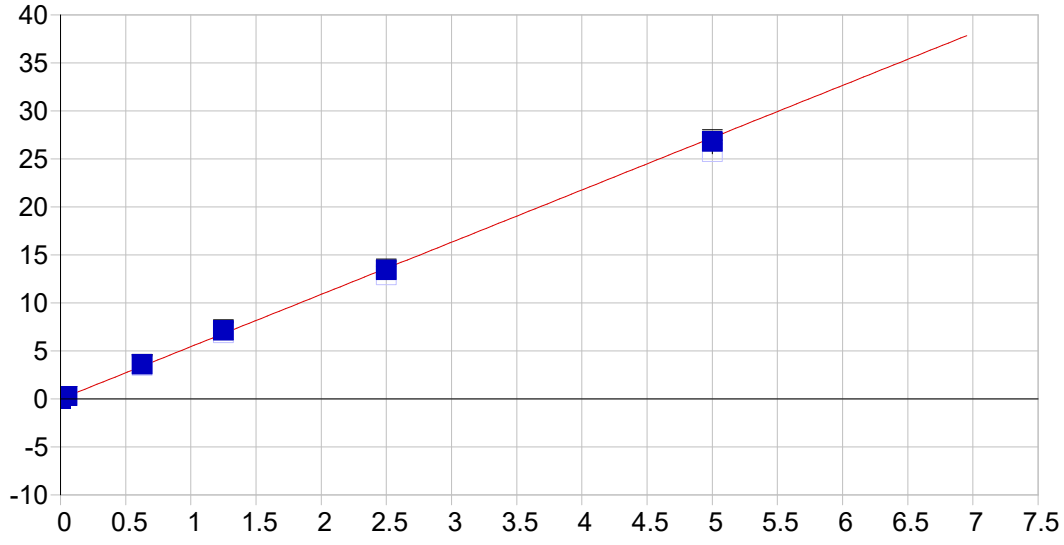
Na 818.326 { 41}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006749	Re-Slope:	1.000000
A1 (Gain):	0.008677	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999456	Status:	OK.
Std Error of Est:	0.000885		
Predicted MDL:	0.893532		
Predicted MQL:	2.978440		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00033	.000	.000	.00675	.005	1
S1	5.0000	5.2529	.253	5.06	.05233	.001	1
S2	37.500	36.735	-.765	-2.04	.32549	.004	1
S3	75.000	72.645	-2.35	-3.14	.63708	.002	1
S4	150.00	141.16	-8.84	-5.90	1.2315	.012	1
S5	300.00	290.48	-9.52	-3.17	2.5272	.025	1
S6	800.00	821.23	21.2	2.65	7.1324	.036	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



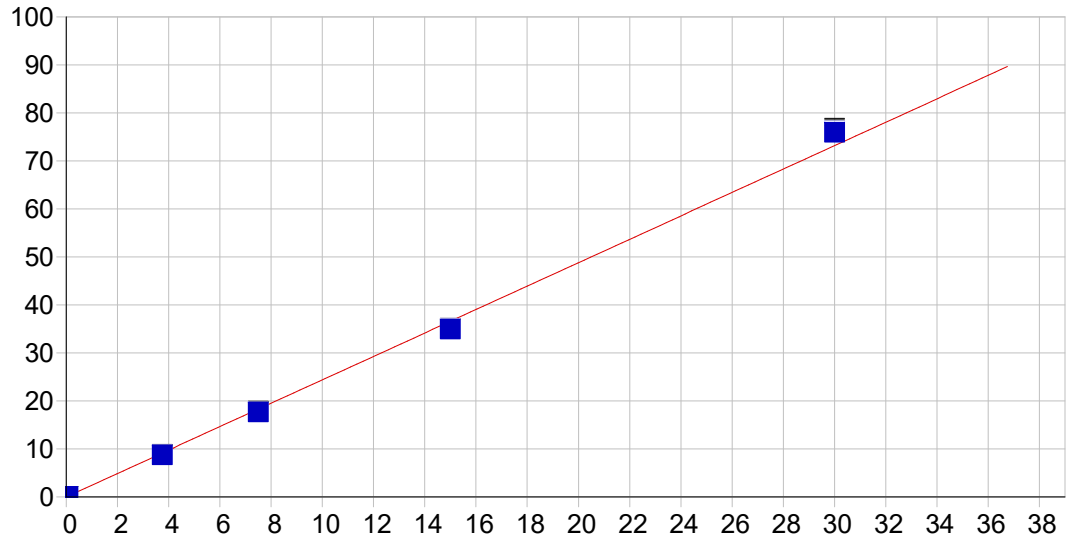
V 292.402 {115}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002809	Re-Slope:	1.000000
A1 (Gain):	5.442632	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999596	Status:	OK.
Std Error of Est:	0.003948		
Predicted MDL:	0.000996		
Predicted MQL:	0.003319		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00286	.007	1
S1	.05000	.05623	.006	12.5	.30249	.008	1
S2	.62500	.65993	.035	5.59	3.4526	.017	1
S3	1.2500	1.3102	.060	4.82	6.8556	.063	1
S4	2.5000	2.4709	-.029	-1.16	12.900	.097	1
S5	5.0000	4.9274	-.073	-1.45	25.725	.196	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



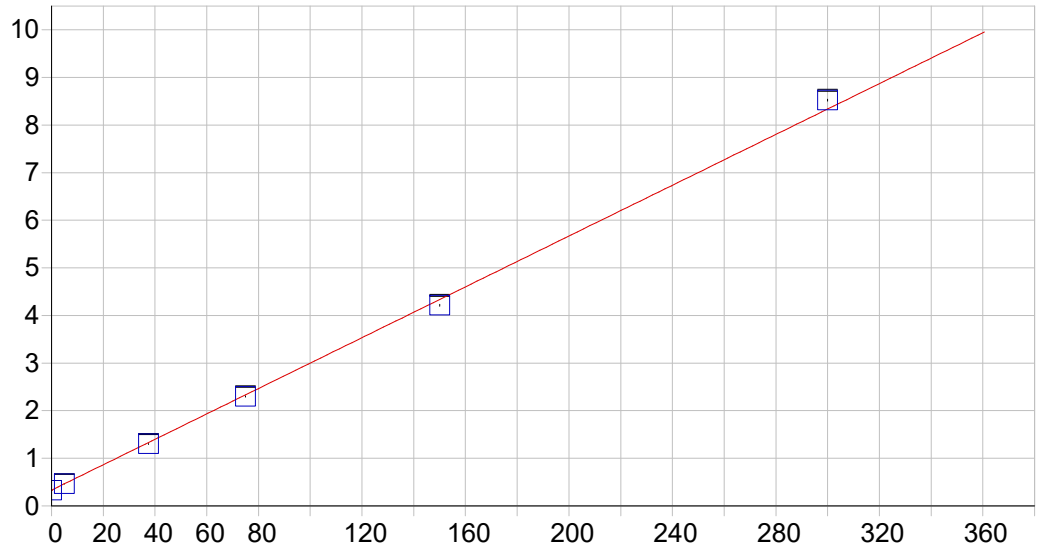
Zn 213.856 {158}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005109	Re-Slope:	1.000000
A1 (Gain):	2.439104	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999210	Status:	OK.
Std Error of Est:	0.006935		
Predicted MDL:	0.000563		
Predicted MQL:	0.001876		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00513	.000	1
S1	.06000	.05697	-.003	-5.06	.14451	.001	1
S2	3.7500	3.5738	-.176	-4.70	8.7667	.096	1
S3	7.5000	7.2407	-.259	-3.46	17.755	.083	1
S4	15.000	14.320	-.680	-4.53	35.112	.012	1
S5	30.000	31.119	1.12	3.73	76.264	.540	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



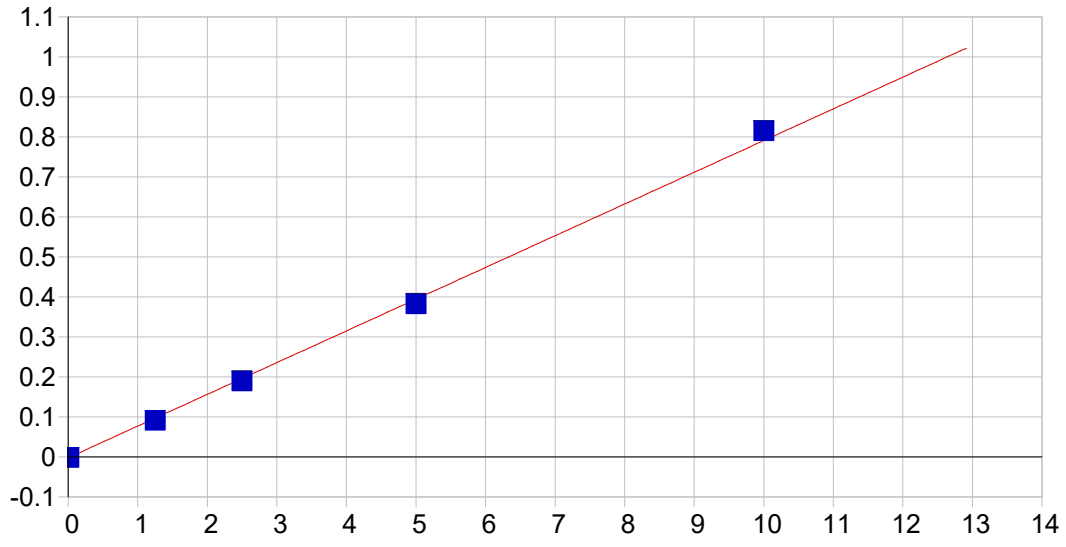
K 769.896 { 44}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.331617	Re-Slope:	1.000000
A1 (Gain):	0.026686	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999685	Status:	OK.
Std Error of Est:	0.001382		
Predicted MDL:	0.247910		
Predicted MQL:	0.826365		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00036	.000	.000	.33163	.006	1
S1	5.0000	4.9123	-.088	-1.75	.46271	.004	1
S2	37.500	36.383	-1.12	-2.98	1.3026	.011	1
S3	75.000	73.718	-1.28	-1.71	2.2989	.014	1
S4	150.00	145.47	-4.53	-3.02	4.2136	.021	1
S5	300.00	307.02	7.02	2.34	8.5249	.020	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



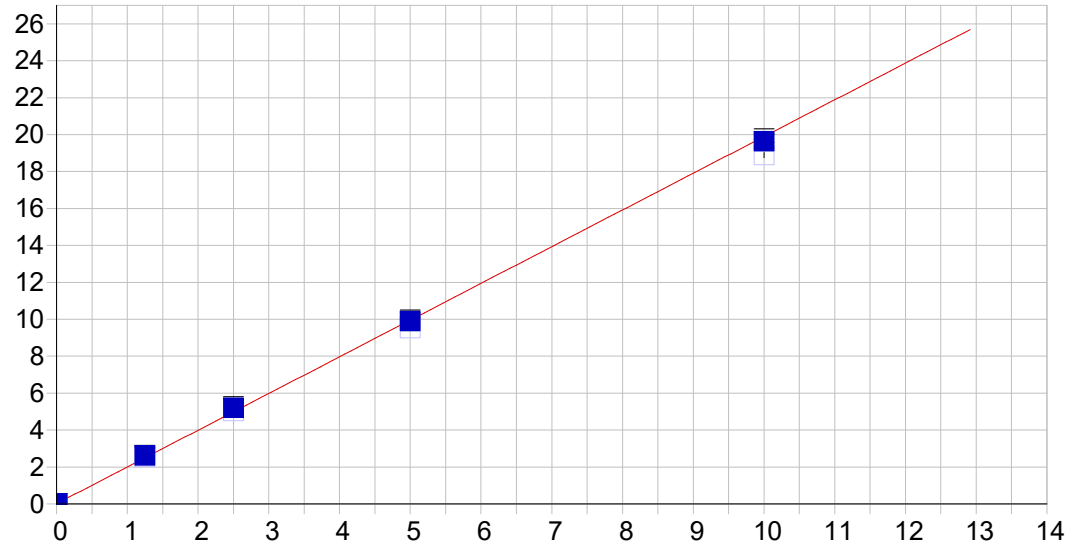
P 177.495 {490}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002209	Re-Slope:	1.000000
A1 (Gain):	0.079301	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999397	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.002121		
Predicted MQL:	0.007069		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00221	.000	1
S1	.01000	.00587	-.004	-41.3	-.00174	.000	1
S2	1.2500	1.1793	-.071	-5.66	.09116	.000	1
S3	2.5000	2.4153	-.085	-3.39	.18904	.000	1
S4	5.0000	4.8507	-.149	-2.99	.38188	.001	1
S5	10.000	10.309	.309	3.09	.81415	.000	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



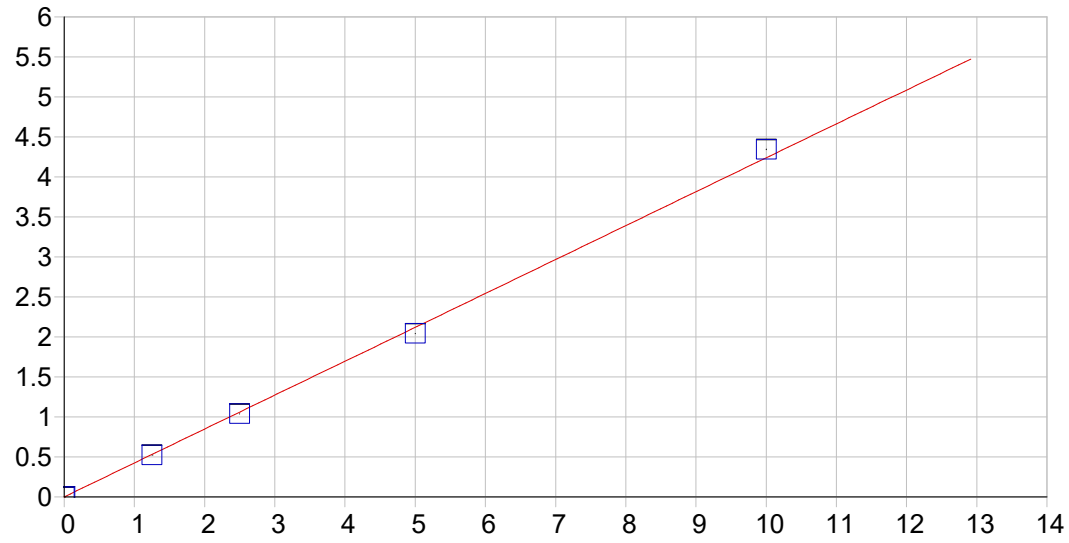
B 249.678 {135}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.012121	Re-Slope:	1.000000
A1 (Gain):	1.988333	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999435	Status:	OK.
Std Error of Est:	0.001078		
Predicted MDL:	0.001948		
Predicted MQL:	0.006494		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.01214	.003	1
S1	.01000	.00010	-.010	-99.0	.01222	.003	1
S2	1.2500	1.3099	.060	4.79	2.5221	.016	1
S3	2.5000	2.6126	.113	4.51	5.0179	.065	1
S4	5.0000	4.9663	-.034	-.674	9.5087	.078	1
S5	10.000	9.8714	-.129	-1.29	18.884	.140	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



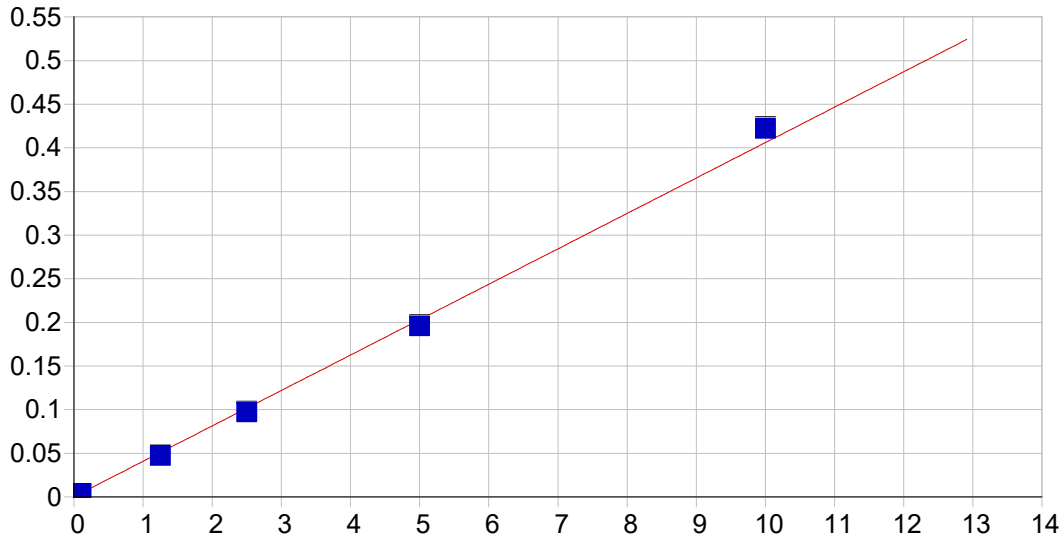
Mo 202.030 {467}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000705	Re-Slope:	1.000000
A1 (Gain):	0.423780	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999624	Status:	OK.
Std Error of Est:	0.000195		
Predicted MDL:	0.000731		
Predicted MQL:	0.002438		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00070	.000	1
S1	.01000	.00979	-.000	-2.08	.00485	.000	1
S2	1.2500	1.2360	-.014	-1.12	.52450	.001	1
S3	2.5000	2.4479	-.052	-2.08	1.0381	.001	1
S4	5.0000	4.8174	-.183	-3.65	2.0422	.003	1
S5	10.000	10.249	.249	2.49	4.3440	.006	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



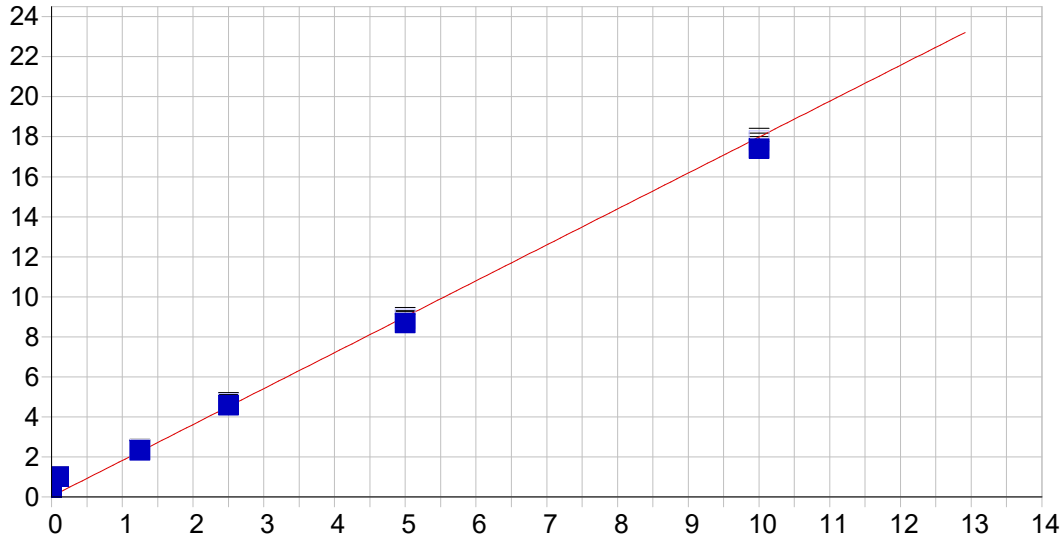
S 182.034 {485}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000253	Re-Slope:	1.000000
A1 (Gain):	0.040583	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999028	Status:	OK.
Std Error of Est:	0.000095		
Predicted MDL:	0.003797		
Predicted MQL:	0.012656		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00025	.000	1
S1	.10000	.07937	-.021	-20.6	.00347	.000	1
S2	1.2500	1.1637	-.086	-6.90	.04765	.000	1
S3	2.5000	2.3883	-.112	-4.47	.09751	.001	1
S4	5.0000	4.8241	-.176	-3.52	.19669	.001	1
S5	10.000	10.394	.394	3.94	.42340	.001	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



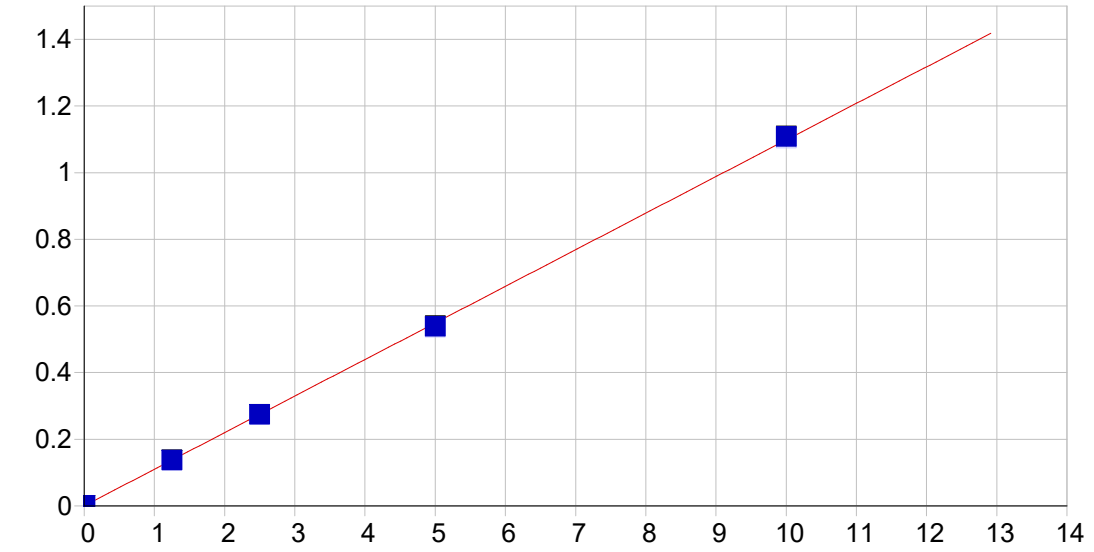
Si 251.611 {134}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.025975	Re-Slope:	1.000000
A1 (Gain):	1.795437	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.952645	Status:	OK.
Std Error of Est:	0.031145		
Predicted MDL:	0.002209		
Predicted MQL:	0.007363		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00044	-.000	.000	.02518	.002	1
S1	.10000	.54597	.446	446.	1.0088	.012	1
S2	1.2500	1.2755	.026	2.04	2.3670	.011	1
S3	2.5000	2.5310	.031	1.24	4.6722	.048	1
S4	5.0000	4.8254	-.175	-3.49	8.8934	.075	1
S5	10.000	9.6758	-.324	-3.24	17.806	.120	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



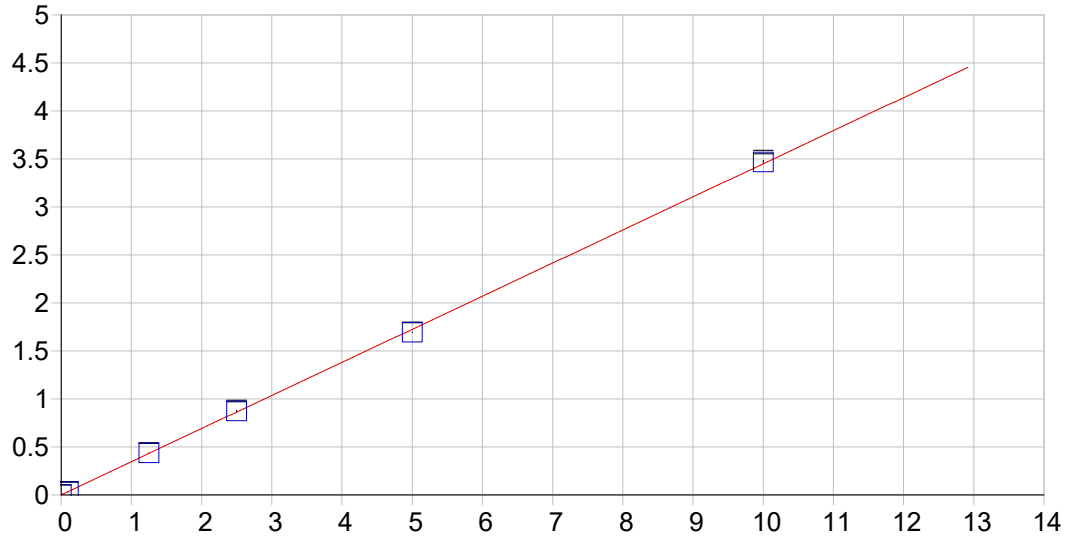
Sn 189.989 {478}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000214	Re-Slope:	1.000000
A1 (Gain):	0.109788	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999927	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.001261		
Predicted MQL:	0.004205		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00021	.000	1
S1	.00700	.00632	-.001	-9.69	.00088	.000	1
S2	1.2500	1.2500	.000	.001	.13676	.000	1
S3	2.5000	2.4993	-.001	-.026	.27324	.000	1
S4	5.0000	4.9066	-.093	-1.87	.53615	.002	1
S5	10.000	10.095	.095	.947	1.1030	.002	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



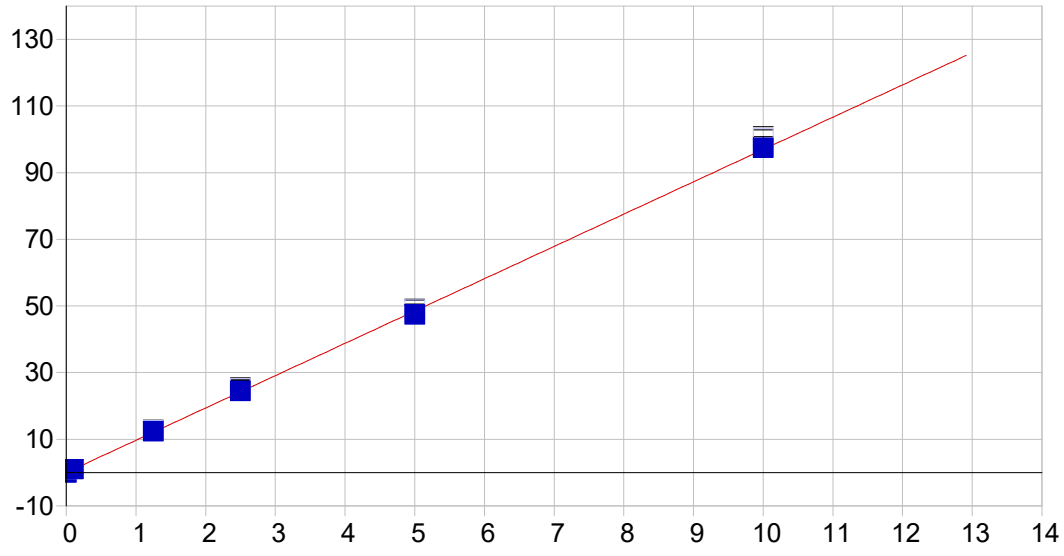
Ti 336.121 {100}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001755	Re-Slope:	1.000000
A1 (Gain):	0.344741	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999922	Status:	OK.
Std Error of Est:	0.000229		
Predicted MDL:	0.006269		
Predicted MQL:	0.020898		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00176	.000	1
S1	.10000	.09444	-.006	-5.56	.03431	.003	1
S2	1.2500	1.2629	.013	1.03	.43711	.003	1
S3	2.5000	2.5330	.033	1.32	.87499	.007	1
S4	5.0000	4.9055	-.094	-1.89	1.6929	.004	1
S5	10.000	10.054	.054	.541	3.4678	.017	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



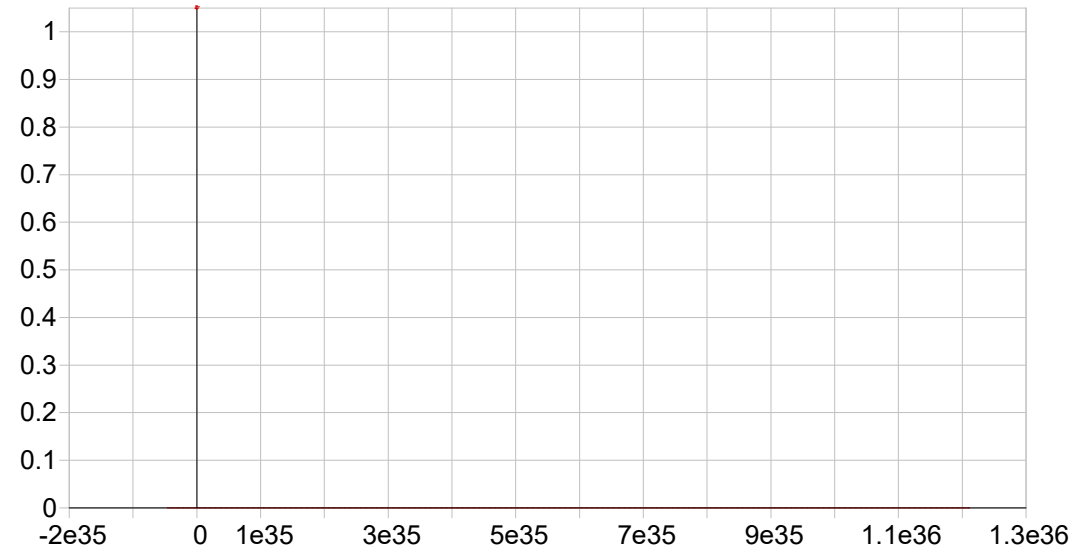
Sr 407.771 { 83}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003899	Re-Slope:	1.000000
A1 (Gain):	9.696488	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999904	Status:	OK.
Std Error of Est:	0.007371		
Predicted MDL:	0.000334		
Predicted MQL:	0.001113		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00399	.004	1
S1	.10000	.10846	.008	8.46	1.0488	.001	1
S2	1.2500	1.2726	.023	1.81	12.700	.029	1
S3	2.5000	2.5278	.028	1.11	25.234	.194	1
S4	5.0000	4.8950	-.105	-2.10	48.915	.160	1
S5	10.000	10.046	.046	.464	100.32	.467	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

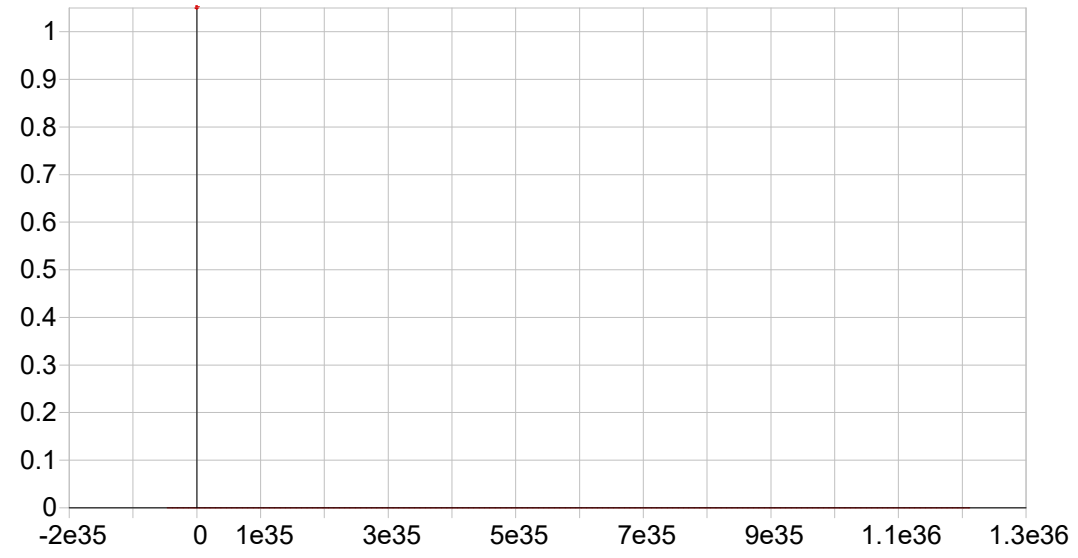


Y 224.306 {450}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 360.073 { 94}*

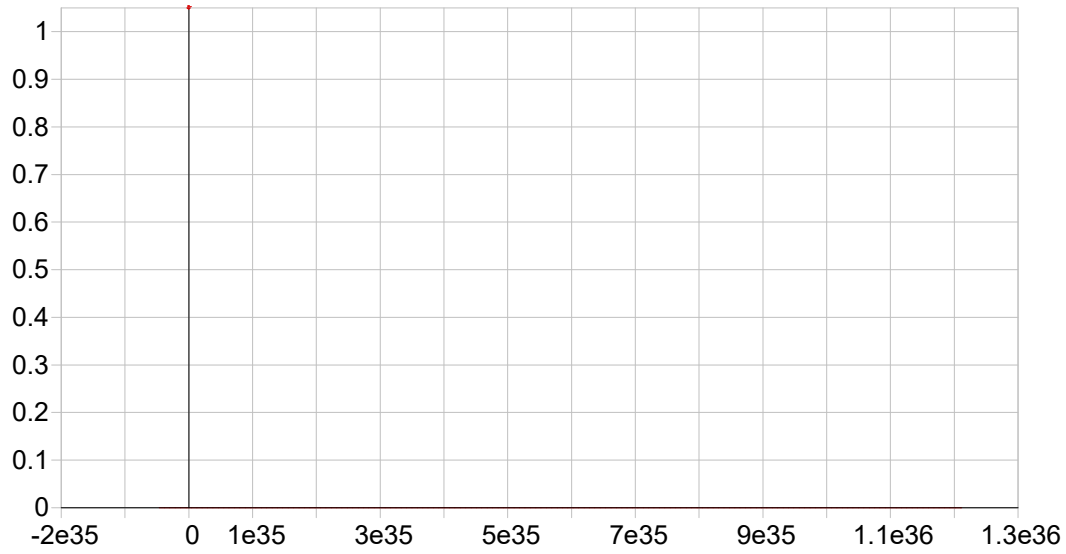
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

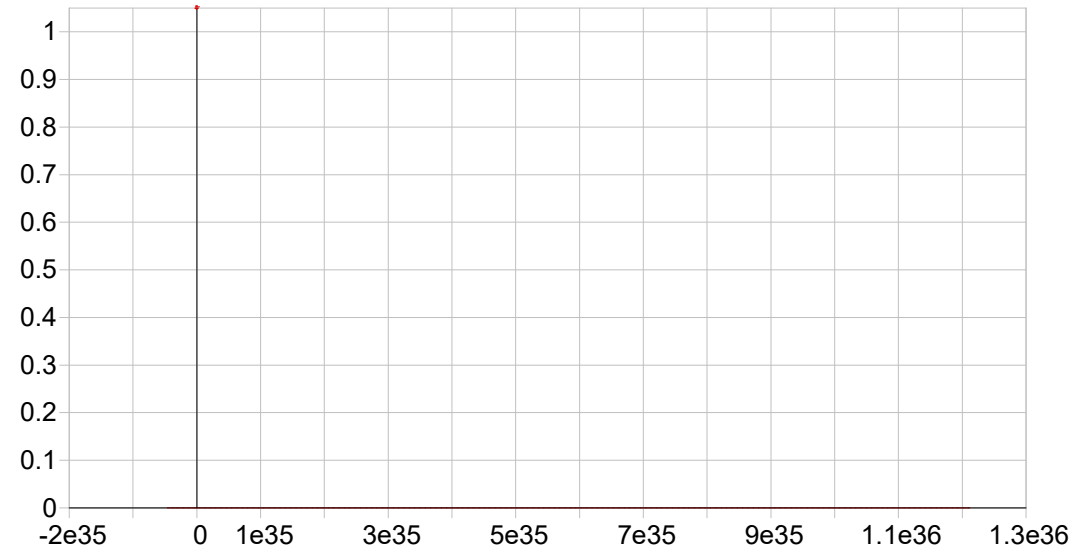


Y 371.030 { 91}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

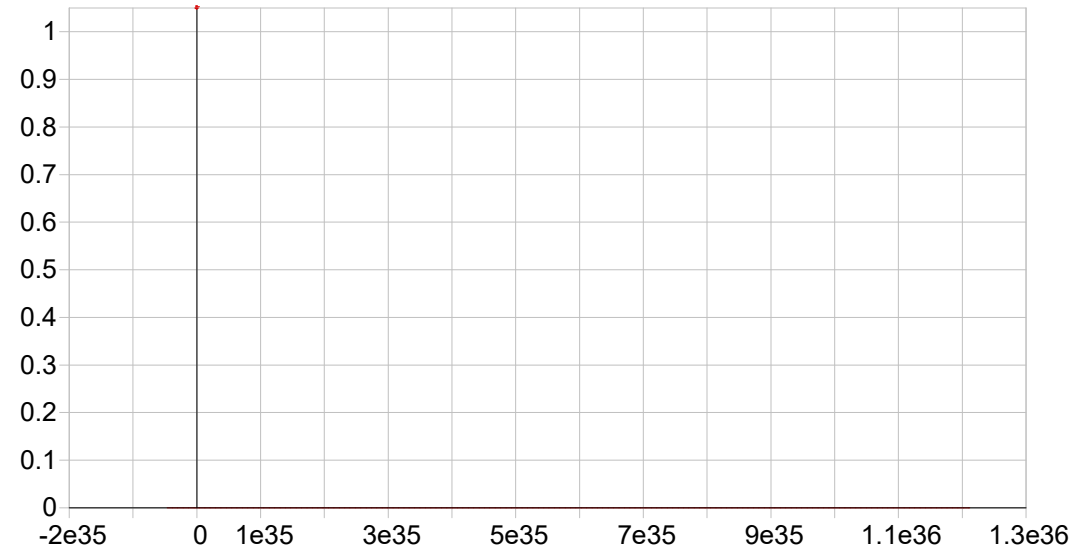
Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5



Y 224.306 {150}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



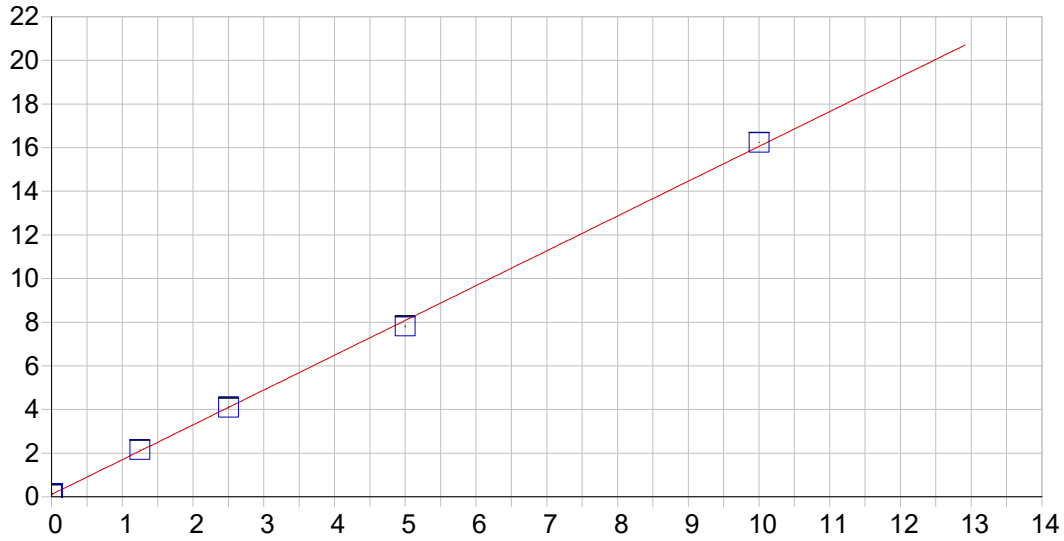
In 230.606 {446}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Li 670.784 { 50}

Date of Fit:	01/10/2025 13:48:12	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.103787	Re-Slope:	1.000000
A1 (Gain):	1.595589	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999232	Status:	OK.
Std Error of Est:	0.001285		
Predicted MDL:	0.004406		
Predicted MQL:	0.014687		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.10376	.011	1
S5	10.000	10.111	.111	1.11	16.237	.008	1
S4	5.0000	4.8341	-.166	-3.32	7.8170	.035	1
S3	2.5000	2.5028	.003	.112	4.0972	.030	1
S2	1.2500	1.2843	.034	2.74	2.1530	.006	1
S1	.01500	.03281	.018	119.	.15614	.006	1

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S0 Acquired: 01/10/2025 11:09:30 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.1971	-.00041	-.00007	.00014	-.00022	.00112	.16218	.01313
Stddev	.6105	.00014	.00048	.00004	.00051	.00301	.00874	.00501
%RSD	27.787	32.871	709.72	25.928	231.38	267.80	5.3903	38.139
#1	2.4417	-.00057	-.00016	.00017	.00030	-.00209	.15334	.01038
#2	1.5022	-.00037	-.00049	.00010	-.00025	.00158	.16237	.01010
#3	2.6473	-.00030	.00045	.00017	-.00071	.00388	.17082	.01892

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00002	.00938	-.00031	-.00076	.08258	-.00069	.00060	-.00163
Stddev	.00017	.00345	.00014	.00013	.00168	.00081	.00097	.00203
%RSD	742.73	36.819	44.523	17.833	2.0301	117.20	161.84	124.30
#1	-.00015	.01336	-.00032	-.00063	.08066	-.00007	.00150	-.00208
#2	.00003	.00715	-.00017	-.00090	.08374	-.00039	-.00044	-.00340
#3	.00019	.00764	-.00045	-.00073	.08335	-.00160	.00074	.00058

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00070	.00038	.00675	-.00286	.00513	.33163	-.00221	.01214
Stddev	.00021	.00009	.00527	.00701	.00028	.00648	.00010	.00267
%RSD	30.134	24.526	78.124	244.62	5.4853	1.9552	4.5991	22.020
#1	-.00092	.00034	.00397	-.01031	.00499	.32558	-.00212	.01519
#2	-.00068	.00032	.00345	.00359	.00495	.33082	-.00232	.01020
#3	-.00050	.00049	.01284	-.00187	.00545	.33848	-.00219	.01103

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00070	.00025	.02518	.00021	.00176	-.00399	.10376
Stddev	.00017	.00004	.00178	.00012	.00041	.00395	.01074
%RSD	24.553	14.255	7.0520	54.769	23.092	98.900	10.349
#1	.00082	.00027	.02694	.00012	.00222	-.00358	.11455
#2	.00051	.00028	.02522	.00017	.00146	-.00813	.10364
#3	.00079	.00021	.02339	.00035	.00159	-.00027	.09308

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S0 Acquired: 01/10/2025 11:09:30 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3501.3	32381.	1331.0	2008.3	4048.0
Stddev	1.1	113.	9.9	7.7	1.9
%RSD	.03141	.34953	.74053	.38452	.04618
#1	3500.1	32330.	1321.9	2009.1	4050.0
#2	3501.5	32303.	1329.8	2000.2	4047.6
#3	3502.3	32511.	1341.5	2015.6	4046.3

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S1 Acquired: 01/10/2025 11:13:35 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.5668	.00224	.00160	.00172	.00534	.02055	.98492	.10662
Stddev	.2708	.00011	.00019	.00007	.00009	.00361	.00692	.00370
%RSD	5.9310	4.8346	11.631	4.0120	1.7516	17.540	.70239	3.4657
#1	4.8069	.00213	.00153	.00180	.00535	.01663	.99284	.11082
#2	4.6202	.00234	.00145	.00167	.00542	.02131	.98184	.10521
#3	4.2732	.00224	.00181	.00169	.00524	.02372	.98008	.10384

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01688	.27425	.00278	.03536	.36309	.00229	.00478	.04050
Stddev	.00014	.00326	.00022	.00040	.01263	.00123	.00101	.00069
%RSD	.83288	1.1903	7.8862	1.1195	3.4797	53.448	21.019	1.7046
#1	.01701	.27095	.00271	.03564	.37712	.00120	.00472	.04101
#2	.01689	.27434	.00302	.03491	.35261	.00362	.00381	.03972
#3	.01673	.27747	.00260	.03554	.35954	.00206	.00582	.04079

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02425	.00286	.05233	.30249	.14451	.46271	-.00174	.01222
Stddev	.00024	.00052	.00109	.00786	.00071	.00395	.00013	.00305
%RSD	.99400	18.343	2.0805	2.5993	.49354	.85294	7.3533	24.984
#1	.02410	.00344	.05163	.30435	.14513	.46253	-.00167	.01222
#2	.02412	.00243	.05358	.30925	.14373	.45885	-.00189	.00916
#3	.02453	.00270	.05177	.29386	.14466	.46674	-.00166	.01527

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00485	.00347	1.0088	.00088	.03431	1.0488	.15614
Stddev	.00015	.00009	.0117	.00004	.00327	.0006	.00566
%RSD	3.1267	2.5391	1.1623	4.8551	9.5411	.05331	3.6268
#1	.00471	.00343	1.0210	.00085	.03080	1.0485	.16266
#2	.00484	.00358	1.0077	.00092	.03486	1.0494	.15334
#3	.00501	.00341	.99763	.00085	.03728	1.0484	.15243

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S1 Acquired: 01/10/2025 11:13:35 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3515.0	32528.	1343.0	1997.2	3917.3
Stddev	8.2	157.	6.9	7.5	13.3
%RSD	.23247	.48337	.51040	.37518	.33872
#1	3514.6	32689.	1336.1	2003.8	3915.4
#2	3523.3	32520.	1343.0	1998.8	3931.4
#3	3507.0	32375.	1349.8	1989.1	3905.0

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S2 Acquired: 01/10/2025 11:17:37 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	370.77	.12620	1.4311	.06749	.12855	3.5538	10.334	2.3202
Stddev	2.56	.00027	.0031	.00033	.00076	.0046	.022	.0097
%RSD	.69105	.21612	.21890	.48867	.58876	.13055	.21146	.41893
#1	370.97	.12630	1.4324	.06779	.12939	3.5576	10.334	2.3289
#2	368.12	.12641	1.4334	.06754	.12833	3.5552	10.312	2.3097
#3	373.23	.12589	1.4276	.06713	.12792	3.5486	10.356	2.3219

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.2720	3.2331	1.0732	.46992	37.619	.89768	1.2071	.53748
Stddev	.0051	.0066	.0104	.00177	.182	.00085	.0012	.00097
%RSD	.22300	.20566	.96920	.37561	.48407	.09495	.09831	.18053
#1	2.2761	3.2320	1.0618	.47160	37.823	.89866	1.2083	.53770
#2	2.2735	3.2270	1.0755	.47009	37.472	.89730	1.2060	.53642
#3	2.2663	3.2402	1.0823	.46808	37.562	.89708	1.2069	.53833

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.41403	.07369	.32549	3.4526	8.7667	1.3026	.09116	2.5221
Stddev	.00103	.00086	.00405	.0174	.0956	.0112	.00012	.0161
%RSD	.24783	1.1732	1.2443	.50387	1.0901	.85921	.13636	.63692
#1	.41458	.07271	.32890	3.4619	8.6567	1.3079	.09130	2.5404
#2	.41466	.07403	.32101	3.4326	8.8290	1.3101	.09114	2.5101
#3	.41284	.07434	.32656	3.4634	8.8144	1.2897	.09105	2.5159

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.52450	.04765	2.3670	.13676	.43711	12.700	2.1530
Stddev	.00111	.00034	.0105	.00032	.00323	.029	.0065
%RSD	.21143	.72269	.44383	.23664	.74003	.22445	.29995
#1	.52470	.04803	2.3765	.13655	.43613	12.673	2.1567
#2	.52549	.04752	2.3558	.13714	.43448	12.698	2.1568
#3	.52330	.04738	2.3688	.13660	.44072	12.729	2.1455

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S2 Acquired: 01/10/2025 11:17:37 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3295.1	30859.	1315.6	1878.0	3326.9
Stddev	17.9	399.	3.7	26.8	17.2
%RSD	.54307	1.2943	.27880	1.4283	.51570
#1	3293.5	31317.	1314.9	1907.4	3325.1
#2	3278.0	30585.	1312.3	1854.8	3310.7
#3	3313.7	30674.	1319.5	1871.8	3344.9

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S3 Acquired: 01/10/2025 11:21:28 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	725.11	.24688	2.8587	.13569	.25441	7.0516	20.451	4.6097
Stddev	2.81	.00050	.0046	.00045	.00023	.0442	.131	.0557
%RSD	.38709	.20381	.16007	.32865	.08902	.62629	.64179	1.2080
#1	726.01	.24737	2.8575	.13545	.25447	7.0633	20.471	4.6249
#2	727.36	.24636	2.8549	.13542	.25416	7.0888	20.570	4.6562
#3	721.96	.24690	2.8638	.13621	.25460	7.0028	20.310	4.5480

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.5560	6.3982	2.1284	.92535	73.603	1.7865	2.3949	1.0660
Stddev	.0032	.0424	.0071	.00147	.918	.0169	.0237	.0066
%RSD	.06978	.66339	.33479	.15879	1.2474	.94515	.98942	.61565
#1	4.5534	6.3967	2.1359	.92418	73.926	1.7959	2.4037	1.0694
#2	4.5549	6.4414	2.1273	.92486	74.316	1.7966	2.4130	1.0700
#3	4.5595	6.3565	2.1218	.92700	72.567	1.7670	2.3681	1.0584

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.82480	.14694	.63708	6.8556	17.755	2.2989	.18904	5.0179
Stddev	.00099	.00056	.00164	.0629	.083	.0144	.00049	.0650
%RSD	.11963	.38129	.25694	.91748	.46983	.62835	.25923	1.2963
#1	.82555	.14725	.63796	6.8638	17.665	2.2895	.18906	5.0416
#2	.82368	.14727	.63810	6.9141	17.773	2.3155	.18854	5.0677
#3	.82517	.14629	.63519	6.7891	17.829	2.2917	.18952	4.9443

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.0381	.09751	4.6722	.27324	.87499	25.234	4.0972
Stddev	.0014	.00067	.0482	.00045	.00671	.194	.0303
%RSD	.13681	.68348	1.0314	.16624	.76736	.77040	.73844
#1	1.0381	.09755	4.6928	.27297	.88181	25.306	4.0750
#2	1.0367	.09682	4.7066	.27298	.87477	25.382	4.1317
#3	1.0395	.09815	4.6171	.27376	.86839	25.014	4.0851

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S3 Acquired: 01/10/2025 11:21:28 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3215.1	30103.	1297.4	1815.3	3182.4
Stddev	10.8	82.	10.0	14.5	9.3
%RSD	.33587	.27275	.76801	.80045	.29202
#1	3218.3	30101.	1296.4	1828.9	3184.3
#2	3223.9	30186.	1288.0	1817.0	3190.5
#3	3203.0	30022.	1307.8	1800.0	3172.3

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S4 Acquired: 01/10/2025 11:25:12 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1354.9	.47130	5.6411	.26858	.50768	13.724	39.791	8.8571
Stddev	6.3	.00084	.0136	.00060	.00044	.033	.133	.0861
%RSD	.46307	.17770	.24078	.22288	.08661	.23794	.33481	.97194
#1	1354.2	.47189	5.6461	.26916	.50819	13.713	39.745	8.9255
#2	1349.0	.47034	5.6257	.26796	.50743	13.760	39.941	8.8854
#3	1361.5	.47166	5.6514	.26863	.50742	13.697	39.687	8.7604

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.9650	12.246	4.1536	1.7961	138.92	3.4251	4.5924	2.0571
Stddev	.0218	.033	.0068	.0037	1.20	.0116	.0200	.0065
%RSD	.24296	.27010	.16471	.20519	.86055	.33809	.43598	.31365
#1	8.9792	12.242	4.1588	1.7985	140.04	3.4192	4.5747	2.0529
#2	8.9399	12.281	4.1560	1.7919	139.06	3.4384	4.6141	2.0646
#3	8.9759	12.216	4.1458	1.7979	137.66	3.4176	4.5883	2.0539

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.6133	.29045	1.2315	12.900	35.112	4.2136	.38188	9.5087
Stddev	.0038	.00044	.0120	.097	.012	.0209	.00124	.0785
%RSD	.23714	.15284	.97418	.75442	.03511	.49535	.32420	.82528
#1	1.6136	.29071	1.2243	12.992	35.098	4.1896	.38311	9.5910
#2	1.6093	.29070	1.2454	12.910	35.118	4.2281	.38063	9.5004
#3	1.6170	.28994	1.2249	12.798	35.120	4.2230	.38190	9.4348

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.0422	.19669	8.8934	.53615	1.6929	48.915	7.8170
Stddev	.0033	.00062	.0746	.00152	.0039	.160	.0346
%RSD	.16151	.31411	.83832	.28345	.23192	.32743	.44316
#1	2.0460	.19683	8.9629	.53756	1.6887	48.800	7.7797
#2	2.0402	.19601	8.9027	.53454	1.6965	49.098	7.8482
#3	2.0404	.19722	8.8147	.53636	1.6935	48.846	7.8230

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S4 Acquired: 01/10/2025 11:25:12 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2995.9	28329.	1258.1	1685.7	2944.4
Stddev	12.5	67.	10.2	7.1	6.4
%RSD	.41654	.23525	.81212	.42410	.21805
#1	2987.9	28363.	1251.5	1691.8	2938.2
#2	2989.5	28252.	1252.9	1677.8	2943.9
#3	3010.3	28372.	1269.8	1687.4	2951.0

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S5 Acquired: 01/10/2025 11:28:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.8	.95266	11.681	.58650	1.1052	28.505	83.243	18.131
Stddev	6.3	.00155	.006	.00100	.0012	.162	.126	.106
%RSD	.22924	.16275	.05389	.17067	.11236	.56743	.15162	.58207
#1	2732.1	.95120	11.675	.58562	1.1039	28.691	83.345	18.073
#2	2730.3	.95428	11.682	.58630	1.1064	28.428	83.282	18.253
#3	2741.9	.95249	11.687	.58759	1.1053	28.396	83.102	18.068

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	18.526	24.867	8.4986	3.6906	277.64	6.9420	9.2739	4.1961
Stddev	.009	.096	.0180	.0010	4.59	.0313	.0548	.0251
%RSD	.04824	.38617	.21124	.02805	1.6549	.45025	.59112	.59760
#1	18.530	24.965	8.5191	3.6912	278.08	6.9780	9.3333	4.2242
#2	18.515	24.864	8.4860	3.6894	282.00	6.9220	9.2631	4.1879
#3	18.532	24.773	8.4906	3.6912	272.84	6.9261	9.2252	4.1761

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.3303	.61140	2.5272	25.725	76.264	8.5249	.81415	18.884
Stddev	.0055	.00117	.0251	.196	.540	.0203	.00038	.140
%RSD	.16370	.19082	.99321	.76233	.70820	.23816	.04712	.74198
#1	3.3268	.61269	2.5551	25.652	76.762	8.5465	.81445	18.790
#2	3.3275	.61041	2.5200	25.947	76.341	8.5220	.81372	19.045
#3	3.3366	.61112	2.5065	25.575	75.690	8.5062	.81427	18.816

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.3440	.42340	17.806	1.1030	3.4678	100.32	16.237
Stddev	.0059	.00088	.120	.0015	.0174	.47	.008
%RSD	.13665	.20851	.67288	.13789	.50217	.46539	.04757
#1	4.3375	.42238	17.733	1.1024	3.4871	100.85	16.245
#2	4.3454	.42395	17.944	1.1018	3.4631	100.13	16.230
#3	4.3491	.42386	17.741	1.1047	3.4533	99.977	16.236

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S5 Acquired: 01/10/2025 11:28:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2760.0	26819.	1230.1	1489.6	2766.8
Stddev	5.2	206.	8.2	16.2	4.8
%RSD	.18793	.76892	.66913	1.0906	.17453
#1	2761.1	26582.	1226.1	1471.6	2765.1
#2	2754.3	26920.	1224.7	1494.2	2763.1
#3	2764.5	26955.	1239.6	1503.1	2772.3

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: S6 Acquired: 01/10/2025 11:32:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v102) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	77.522	40.645	18.453	6.5625	7.1324
Stddev	.474	.076	.078	.0196	.0363
%RSD	.61165	.18807	.42191	.29873	.50933
#1	78.066	40.731	18.538	6.5845	7.1739
#2	77.196	40.586	18.385	6.5468	7.1170
#3	77.303	40.618	18.436	6.5563	7.1064

Int. Std.	Y_3710
Units	Cts/S
Avg	1192.5
Stddev	4.1
%RSD	.34146
#1	1188.5
#2	1196.7
#3	1192.5

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICV057 Acquired: 01/10/2025 13:45:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v103) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICV057 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.099651	1.071776	.9879023	.9721776	1.064991	2.439304
Stddev	.006550	.001464	.0025307	.0028341	.001594	.042606
%RSD	.5956552	.1365659	.2561732	.2915169	.1496510	1.746661
#1	1.096839	1.072240	.9907082	.9689839	1.063657	2.453204
#2	1.094977	1.070136	.9857923	.9743927	1.064561	2.473224
#3	1.107138	1.072951	.9872065	.9731562	1.066756	2.391484

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5346593	.5082947	.4879404	10.68679	.5620989	.5152988
Stddev	.0078335	.0029766	.0003721	.07291	.0015694	.0015418
%RSD	1.465148	.5856092	.0762550	.6822586	.2792029	.2992071
#1	.5429586	.5113602	.4877429	10.77059	.5626968	.5164733
#2	.5273942	.5081082	.4877087	10.65194	.5603184	.5135528
#3	.5336251	.5054157	.4883696	10.63785	.5632814	.5158702

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5487984	10.40660	.5141058	6.275455	.5099247	.2574175
Stddev	.0026037	.16111	.0066584	.119000	.0016305	.0005100
%RSD	.4744370	1.548129	1.295151	1.896276	.3197428	.1981404
#1	.5507922	10.58603	.5179406	6.410254	.5111136	.2580045
#2	.5497502	10.35942	.5064173	6.184967	.5080661	.2570820
#3	.5458527	10.27435	.5179595	6.231145	.5105945	.2571661

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.003823	.5441387	1.022291	10.00932	F .0064307	F -.001111
Stddev	.403591	.0040734	.004870	.19706	.0005900	.001044
%RSD	4.482441	.7486028	.4763821	1.968780	9.175042	93.98562
#1	9.147698	.5471542	1.020000	9.80279	.0057545	-.000573
#2	9.315760	.5457570	1.027884	10.19530	.0066965	-.000445
#3	8.548009	.5395047	1.018989	10.02986	.0068410	-.002314

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICV057 Acquired: 01/10/2025 13:45:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v103) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICV057 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0008326	F .0091354	F .0011172	F -.000749	F -.002257	F -.009048
Stddev	.0005495	.0022361	.0045487	.000821	.005925	.000153
%RSD	65.99955	24.47697	407.1404	109.4934	262.5230	1.688551
#1	.0013726	.0089976	-.003854	-.000706	.003578	-.009196
#2	.0002741	.0069714	.005072	.000049	-.002081	-.009057
#3	.0008509	.0114371	.002134	-.001591	-.008268	-.008891

Elem	Li6707
Units	ppm
Avg	F -.012268
Stddev	.004722
%RSD	38.48844
#1	-.011232
#2	-.008151
#3	-.017422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3354.049	30397.47	1354.164	1921.777	3595.824
Stddev	12.391	119.05	10.319	5.106	13.921
%RSD	.3694411	.3916285	.7619926	.2656877	.3871442
#1	3339.835	30261.78	1343.436	1919.313	3579.931
#2	3362.578	30446.29	1355.036	1918.370	3605.857
#3	3359.733	30484.35	1364.018	1927.647	3601.684

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICB057 Acquired: 01/10/2025 13:50:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICB057 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005110	.0022756	-.003312	-.002508	.0009138	.0046446	-.002452
Stddev	.004574	.0023911	.003164	.001362	.0017887	.0414387	.002921
%RSD	89.50611	105.0725	95.52696	54.28474	195.7496	892.1832	119.1175
#1	.000147	.0001121	-.001073	-.004080	-.000576	-.007586	.000331
#2	-.007302	.0048429	-.001931	-.001748	.002898	-.029302	-.002194
#3	-.008175	.0018719	-.006931	-.001697	.000419	.050822	-.005494

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000863	.0000463	.0376439	.0008985	.0003532	.0001793	.0053461
Stddev	.0001939	.0000493	.0399094	.0007723	.0006869	.0002817	.0804642
%RSD	224.7327	106.4853	106.0185	85.94890	194.4863	157.1015	1505.089
#1	-.000137	.0000113	-.002813	.0003420	.0008665	.0003112	-.087318
#2	.000184	.0000249	.038762	.0017802	.0006202	-.000144	.057549
#3	.000212	.0001027	.076982	.0005734	-.000427	.000371	.045807

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004195	-.145402	-.000098	-.000752	.8616343	-.000120	-.002470
Stddev	.000457	.082303	.000603	.001494	.8276416	.000457	.000295
%RSD	10.90373	56.60367	613.1881	198.6618	96.05486	380.1173	11.94538
#1	-.003855	-.085257	.000429	-.001434	1.414636	-.000621	-.002498
#2	-.004715	-.111751	.000031	.000961	-.089872	.000272	-.002163
#3	-.004015	-.239199	-.000756	-.001784	1.260139	-.000011	-.002751

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2240749	-.001759	-.006242	.0000001	-.002336	.0004958	-.001894
Stddev	.2337292	.001197	.001956	.0002469	.004976	.0014598	.000344
%RSD	104.3085	68.06281	31.32950	259436.6	212.9730	294.4213	18.14988
#1	.1888597	-.000457	-.007171	-.000264	.002743	.0019642	-.001587
#2	.4734136	-.002006	-.007560	.000225	-.002551	.0004785	-.001830
#3	.0099515	-.002813	-.003995	.000040	-.007201	-.000955	-.002265

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICB057 Acquired: 01/10/2025 13:50:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICB057 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	-.005741	-.000011	-.005717
Stddev	.008125	.000385	.004271
%RSD	141.5164	3351.338	74.70462
#1	-.003829	.000121	-.001323
#2	-.014652	-.000445	-.005976
#3	.001257	.000289	-.009853

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3376.988	31006.58	1328.788	1917.840	3843.291
Stddev	4.871	142.88	2.701	4.869	9.166
%RSD	.1442272	.4608088	.2032526	.2538793	.2385014
#1	3372.513	30904.94	1329.915	1914.239	3836.754
#2	3376.276	31169.95	1325.706	1915.902	3839.351
#3	3382.175	30944.85	1330.742	1923.380	3853.769

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICSA057 Acquired: 01/10/2025 13:54:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSA057 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007128	-.008716	-.008313	.0257305	.0139126	249.5393
Stddev	.0016938	.004557	.002057	.0019953	.0082338	1.1515
%RSD	237.6117	52.28321	24.74514	7.754574	59.18248	.4614367
#1	.0026525	-.013541	-.006036	.0268033	.0044086	248.8461
#2	-.000475	-.008124	-.010037	.0269599	.0184382	250.8685
#3	-.000039	-.004484	-.008867	.0234283	.0188911	248.9034

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030009	.0027287	.0008796	267.5098	.0550933	-.001195
Stddev	.0005386	.0000856	.0001071	1.6435	.0010067	.000234
%RSD	17.94855	3.135893	12.17472	.6143828	1.827175	19.55202
#1	.0023929	.0028190	.0007575	267.7341	.0540164	-.001430
#2	.0031913	.0026488	.0009572	269.0298	.0552530	-.000963
#3	.0034184	.0027181	.0009242	265.7657	.0560106	-.001193

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.018434	106.3629	-.000960	269.0063	.0049137	-.004169
Stddev	.000298	.1980	.003928	1.6039	.0003636	.000532
%RSD	1.615674	.1861236	409.2488	.5962301	7.399003	12.77052
#1	-.018326	106.5047	-.004873	269.6848	.0051295	-.004355
#2	-.018205	106.4473	.002983	270.1595	.0051176	-.004583
#3	-.018770	106.1367	-.000989	267.1747	.0044939	-.003569

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8610100	.0038202	-.036653	-.668365	-.003652	F .0312462
Stddev	.9094879	.0004394	.000675	.222822	.001831	.0016898
%RSD	105.6304	11.50250	1.841880	33.33835	50.13982	5.408188
#1	.3306136	.0042054	-.037425	-.673579	-.001998	.0331950
#2	1.911178	.0039137	-.036171	-.442982	-.003338	.0301882
#3	.341238	.0033416	-.036365	-.888533	-.005619	.0303553

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICSA057 Acquired: 01/10/2025 13:54:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSA057 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045607	.0096473	-.010883	F .0133008	-.013552	.0078549
Stddev	.0005697	.0024869	.000577	.0021272	.005628	.0001818
%RSD	12.49161	25.77759	5.306147	15.99317	41.53045	2.315045
#1	.0047014	.0086507	-.010348	.0144136	-.014996	.0076471
#2	.0039338	.0124779	-.011495	.0108480	-.007343	.0079325
#3	.0050468	.0078134	-.010805	.0146407	-.018318	.0079850

Elem	Li6707
Units	ppm
Avg	.0095681
Stddev	.0022305
%RSD	23.31177
#1	.0109519
#2	.0107574
#3	.0069950

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3018.600	27423.43	1263.309	1732.510	3020.030
Stddev	9.146	88.81	10.329	9.729	13.767
%RSD	.3029944	.3238407	.8176448	.5615514	.4558423
#1	3020.929	27424.24	1266.025	1725.618	3024.270
#2	3026.357	27511.83	1251.894	1743.639	3031.179
#3	3008.515	27334.22	1272.010	1728.273	3004.643

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICSAB057 Acquired: 01/10/2025 14:27:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSAB057 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1001617	.0996756	.0475256	.0783551	.6077626	248.1417
Stddev	.0017443	.0025009	.0006858	.0061357	.0039274	1.3045
%RSD	1.741445	2.509061	1.443065	7.830639	.6462106	.5257061
#1	.1020141	.1005104	.0481330	.0724784	.6097368	248.2324
#2	.0999204	.0968641	.0467819	.0778664	.6103112	246.7943
#3	.0985507	.1016523	.0476621	.0847206	.6032397	249.3985

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5645713	.5217213	1.029829	265.8730	.6229144	.5141479
Stddev	.0038428	.0042571	.001148	.8565	.0016595	.0006965
%RSD	.6806563	.8159679	.1114889	.3221318	.2664104	.1354634
#1	.5606822	.5212395	1.029690	266.3903	.6210132	.5148509
#2	.5646657	.5177256	1.028757	264.8844	.6240728	.5141347
#3	.5683661	.5261988	1.031041	266.3443	.6236571	.5134581

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5017894	105.6458	.5172360	267.0397	1.028221	.2160235
Stddev	.0026416	.6182	.0070896	.9160	.001233	.0005141
%RSD	.5264332	.5851368	1.370663	.3430358	.1198793	.2379929
#1	.5022642	105.5137	.5231033	267.3971	1.027702	.2158856
#2	.4989426	105.1044	.5192462	265.9988	1.027334	.2155923
#3	.5041613	106.3194	.5093584	267.7231	1.029629	.2165925

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3545814	.5412424	.9618437	-1.93214	-.001127	F .0301933
Stddev	.7650407	.0008925	.0054910	.18369	.001620	.0024293
%RSD	215.7588	.1649007	.5708835	9.507064	143.7582	8.045707
#1	-.527988	.5407293	.9652506	-1.96078	-.002887	.0301700
#2	.828885	.5407250	.9555092	-2.09983	.000303	.0277757
#3	.762848	.5422730	.9647711	-1.73581	-.000797	.0326340

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: ICSAB057 Acquired: 01/10/2025 14:27:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSAB057 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054329	.0126781	-.006310	F .0114137	-.007578	.0084024
Stddev	.0007350	.0016383	.002240	.0032870	.009629	.0004831
%RSD	13.52919	12.92197	35.49756	28.79877	127.0738	5.749380
#1	.0061697	.0126727	-.007032	.0111535	.003467	.0089601
#2	.0046996	.0110425	-.003798	.0082646	-.014214	.0081128
#3	.0054295	.0143190	-.008100	.0148231	-.011986	.0081344

Elem	Li6707
Units	ppm
Avg	F .0258207
Stddev	.0020308
%RSD	7.864916
#1	.0235018
#2	.0272821
#3	.0266781

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3014.450	27102.75	1265.426	1715.887	3026.798
Stddev	6.261	97.22	11.037	11.535	9.025
%RSD	.2077101	.3586943	.8721908	.6722410	.2981711
#1	3015.105	27207.39	1268.286	1718.650	3028.511
#2	3020.359	27085.63	1274.752	1725.790	3034.844
#3	3007.888	27015.23	1253.241	1703.222	3017.040

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCV144 Acquired: 01/10/2025 14:41:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV144 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.084524	5.145509	26.45155	5.444586	5.363713	406.3285
Stddev	.014855	.037694	.16354	.037997	.033051	2.1644
%RSD	.2921540	.7325544	.6182473	.6978836	.6162048	.5326818
#1	5.068068	5.111334	26.32565	5.416698	5.347158	404.7238
#2	5.088563	5.139253	26.39262	5.429197	5.342209	405.4716
#3	5.096942	5.185939	26.63639	5.487864	5.401770	408.7902

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.78371	.5163987	2.658072	426.0700	16.66925	2.560291
Stddev	.04247	.0037047	.017506	2.0056	.01079	.018015
%RSD	.3938311	.7174182	.6585984	.4707322	.0647117	.7036464
#1	10.73530	.5123563	2.642650	423.9250	16.68169	2.543895
#2	10.81469	.5172075	2.654467	426.3864	16.66257	2.557402
#3	10.80115	.5196321	2.677100	427.8987	16.66348	2.579576

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.42063	414.4105	15.10218	412.7779	2.663931	1.339653
Stddev	.14745	2.2598	.09682	2.0346	.017934	.002944
%RSD	.9562129	.5453113	.6410979	.4929105	.6732251	.2197723
#1	15.25183	412.1004	15.01693	411.4474	2.649620	1.342847
#2	15.48576	414.5147	15.08216	411.7663	2.658125	1.339067
#3	15.52432	416.6164	15.20744	415.1201	2.684049	1.337046

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	400.7104	2.516227	15.64846	163.5591	5.300808	5.165239
Stddev	3.8423	.022571	.07028	1.4995	.030099	.047846
%RSD	.9588694	.8970229	.4491339	.9167951	.5678182	.9263049
#1	398.1619	2.491250	15.64252	162.2641	5.273642	5.111166
#2	398.8395	2.522269	15.72153	163.2112	5.295617	5.182459
#3	405.1298	2.535162	15.58134	165.2019	5.333165	5.202091

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCV144 Acquired: 01/10/2025 14:41:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV144 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.212978	5.382187	F 8.811561	5.322283	5.218851	4.961064
Stddev	.036515	.028373	.073537	.038661	.028593	.020692
%RSD	.7004621	.5271611	.8345498	.7263926	.5478698	.4170910
#1	5.192500	5.364258	8.729220	5.288696	5.190554	4.939377
#2	5.191298	5.367405	8.834768	5.313609	5.218268	4.963223
#3	5.255136	5.414899	8.870695	5.364543	5.247730	4.980592

Elem	Li6707
Units	ppm
Avg	5.404473
Stddev	.057234
%RSD	1.059008
#1	5.343231
#2	5.413581
#3	5.456606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2715.189	25347.87	1222.181	1525.826	2676.308
Stddev	12.074	157.07	4.774	11.529	10.024
%RSD	.4446801	.6196426	.3905964	.7556089	.3745296
#1	2715.876	25166.80	1226.079	1513.400	2681.903
#2	2726.904	25447.44	1223.609	1527.900	2682.286
#3	2702.786	25429.36	1216.857	1536.177	2664.736

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCB144 Acquired: 01/10/2025 14:45:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB144 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001450	.0013570	-.001294	-.000712	-.000726	.0039696
Stddev	.001556	.0005901	.003586	.006380	.002262	.0356694
%RSD	107.3072	43.48466	277.0438	896.4478	311.6504	898.5643
#1	-.001032	.0009183	-.002443	.000658	-.000147	-.033099
#2	-.000145	.0011247	.002725	.004872	-.003222	.006955
#3	-.003171	.0020278	-.004164	-.007665	.001190	.038053

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003438	.0000030	.0000878	.0101411	.0003538	.0002646
Stddev	.001648	.0001813	.0000668	.0207419	.0000553	.0001890
%RSD	47.94224	6120.889	76.14397	204.5336	15.63786	71.44539
#1	-.004830	-.000017	.0000455	.0292065	.0004149	.0000539
#2	-.003866	.000193	.0000530	.0131625	.0003070	.0003204
#3	-.001618	-.000168	.0001648	-.011946	.0003396	.0004195

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012489	-.007502	-.004966	-.005529	-.000337	-.000330
Stddev	.0007955	.077194	.004104	.053007	.000272	.001670
%RSD	63.69333	1029.027	82.64070	958.6453	80.74553	506.5859
#1	.0007918	.037021	-.000339	-.062238	-.000438	.001513
#2	.0021675	.037112	-.006391	.002877	-.000029	-.000760
#3	.0007875	-.096637	-.008167	.042772	-.000543	-.001742

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.519231	.0004732	.0002689	1.673065	.0006140	.0095596
Stddev	.557734	.0012215	.0005759	.135487	.0023202	.0019152
%RSD	36.71159	258.1444	214.2127	8.098135	377.8777	20.03382
#1	.881285	-.000837	.0008037	1.828275	-.000116	.0102871
#2	1.761816	.000675	.0003436	1.612465	-.001253	.0110044
#3	1.914594	.001581	-.000341	1.578455	.003212	.0073873

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCB144 Acquired: 01/10/2025 14:45:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB144 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001288	-.001192	-.001861	-.001197	-.005712	-.000174
Stddev	.0003178	.003245	.002665	.000812	.001789	.000320
%RSD	246.8438	272.3365	143.1888	67.82753	31.31726	184.2611
#1	.0004803	-.003550	.000542	-.000389	-.007312	-.000468
#2	-.000138	.002509	-.004727	-.001189	-.003781	-.000221
#3	.000044	-.002534	-.001399	-.002012	-.006043	.000167

Elem	Li6707
Units	ppm
Avg	F .0915089
Stddev	.0146709
%RSD	16.03224
#1	.1083293
#2	.0848427
#3	.0813546

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3364.416	30717.97	1336.595	1922.594	3844.602
Stddev	43.766	130.94	6.126	11.997	51.381
%RSD	1.300850	.4262776	.4583622	.6239822	1.336447
#1	3313.893	30588.59	1329.761	1917.831	3785.336
#2	3388.662	30850.42	1341.594	1936.241	3871.852
#3	3390.693	30714.90	1338.430	1913.711	3876.617

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-06 Acquired: 01/10/2025 14:49:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN32 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0874877	-.017756	.4882242	.0736542	.0203938	58.20178	.5573572
Stddev	.0009561	.003151	.0007909	.0076245	.0025747	.36420	.0010764
%RSD	1.092795	17.74919	.1619954	10.35169	12.62512	.6257498	.1931236
#1	.0881297	-.018186	.4875267	.0690786	.0174612	58.14523	.5585990
#2	.0863890	-.014411	.4880623	.0694282	.0214367	57.86916	.5566900
#3	.0879445	-.020670	.4890835	.0824559	.0222834	58.59094	.5567827

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066012	.0022287	159.6834	.0874726	.0654412	.3044947	158.7132
Stddev	.0002040	.0000461	1.2827	.0012317	.0004120	.0027985	.6663
%RSD	3.089555	2.066669	.8032654	1.408075	.6295159	.9190768	.4198237
#1	.0067429	.0022757	159.5026	.0863155	.0658104	.3076828	158.7839
#2	.0066933	.0021836	158.5007	.0887673	.0655165	.3024436	158.0143
#3	.0063675	.0022269	161.0469	.0873349	.0649968	.3033578	159.3413

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.119071	31.57467	.1655122	-.005248	1.181306	.1147413	.3448726
Stddev	.060726	.44903	.0004687	.000734	.149093	.0009351	.0011799
%RSD	.6659225	1.422132	.2831620	13.99233	12.62100	.8149322	.3421390
#1	9.113925	31.28537	.1651433	-.005962	1.050769	.1140762	.3459627
#2	9.061082	31.34667	.1660396	-.005286	1.149370	.1143372	.3450354
#3	9.182207	32.09195	.1653538	-.004495	1.343779	.1158104	.3436197

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-2.67742	5.089632	.0871148	.0095333	.6818200	10.65758	.0235390
Stddev	.39698	.007641	.0014440	.0005793	.0027949	.08238	.0012926
%RSD	14.82697	.1501231	1.657620	6.076219	.4099216	.7729616	5.491299
#1	-2.80709	5.087356	.0870473	.0088681	.6797930	10.75050	.0226065
#2	-2.99335	5.083388	.0885914	.0099262	.6806587	10.59350	.0229960
#3	-2.23182	5.098152	.0857057	.0098056	.6850084	10.62873	.0250145

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-06 Acquired: 01/10/2025 14:49:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN32 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.6877056	.0976428	.0622656
Stddev	.0060427	.0007404	.0025274
%RSD	.8786817	.7582858	4.059114
#1	.6857163	.0972337	.0635511
#2	.6944921	.0971972	.0593538
#3	.6829082	.0984975	.0638918

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4006.010	36443.44	1607.760	2294.190	3340.757
Stddev	4.656	223.92	5.776	15.800	2.407
%RSD	.1162365	.6144285	.3592792	.6887080	.0720596
#1	4007.460	36689.90	1608.376	2307.781	3340.512
#2	4009.769	36387.92	1613.203	2297.937	3343.278
#3	4000.801	36252.51	1601.700	2276.854	3338.482

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-07 Acquired: 01/10/2025 14:53:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN33 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0799753	.0043071	.2082406	.0327523	.0136760	37.16187	.3459078
Stddev	.0007141	.0024628	.0018000	.0032373	.0018264	.14662	.0027777
%RSD	.8928459	57.17903	.8643672	9.884130	13.35445	.3945404	.8030191
#1	.0806297	.0068997	.2102269	.0321226	.0115682	37.07177	.3469732
#2	.0800825	.0040228	.2077772	.0362581	.0146699	37.08279	.3427551
#3	.0792137	.0019988	.2067176	.0298761	.0147898	37.33105	.3479951

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042690	.0017673	679.5944	.1228462	.0909917	.2811421	119.7334
Stddev	.0000776	.0000698	1.1681	.0006489	.0003525	.0025227	.4796
%RSD	1.818039	3.950436	.1718845	.5282030	.3874493	.8972925	.4005852
#1	.0043278	.0017190	678.2623	.1228053	.0910862	.2788221	119.2945
#2	.0042983	.0018473	680.4441	.1235146	.0906016	.2838276	119.6602
#3	.0041811	.0017356	680.0767	.1222188	.0912875	.2807768	120.2454

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.50606	23.55174	.1355477	-.004296	1.965365	.0611758	.4669970
Stddev	.06077	.06320	.0005730	.000189	.544023	.0009769	.0023853
%RSD	.5784708	.2683377	.4226986	4.403424	27.68048	1.596863	.5107829
#1	10.45589	23.50280	.1360143	-.004423	1.839086	.0607353	.4688696
#2	10.48864	23.52934	.1357206	-.004079	1.495588	.0604967	.4678100
#3	10.57364	23.62309	.1349082	-.004387	2.561422	.0622954	.4643115

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-2.93167	5.244926	.0746354	.0120464	1.114688	8.823813	.0220137
Stddev	.04343	.008531	.0026845	.0007362	.008827	.042669	.0028312
%RSD	1.481535	.1626620	3.596811	6.111176	.7918487	.4835694	12.86117
#1	-2.97953	5.235559	.0774195	.0120746	1.104567	8.780087	.0249972
#2	-2.89475	5.252251	.0720630	.0127681	1.118715	8.865341	.0193644
#3	-2.92075	5.246968	.0744236	.0112966	1.120783	8.826011	.0216796

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-07 Acquired: 01/10/2025 14:53:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN33 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5869483	.5945237	.0510125
Stddev	.0025122	.0012914	.0017637
%RSD	.4280113	.2172099	3.457291
#1	.5848745	.5934538	.0507763
#2	.5897419	.5941590	.0493788
#3	.5862286	.5959581	.0528823

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3527.523	32384.91	1463.132	2023.753	3033.266
Stddev	12.099	117.84	11.416	2.442	9.564
%RSD	.3429769	.3638744	.7802294	.1206483	.3153201
#1	3519.272	32506.05	1476.304	2025.594	3024.712
#2	3541.411	32270.68	1456.973	2024.681	3043.593
#3	3521.884	32377.98	1456.118	2020.983	3031.494

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-08 Acquired: 01/10/2025 14:56:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN61 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1261205	-.018747	1.708100	.0814565	.0244758	61.96054
Stddev	.0019085	.002496	.003036	.0044396	.0039946	.78680
%RSD	1.513229	13.31293	.1777668	5.450335	16.32086	1.269841
#1	.1259830	-.019732	1.709174	.0830992	.0290859	62.60442
#2	.1242845	-.015909	1.704672	.0764295	.0223013	61.08351
#3	.1280941	-.020600	1.710453	.0848406	.0220400	62.19369

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.582842	.0078052	.0156967	171.7888	.3284344	.0441057
Stddev	.012760	.0002591	.0001440	1.2236	.0013022	.0018264
%RSD	.8061542	3.319815	.9171118	.7122664	.3964951	4.140893
#1	1.595537	.0081009	.0155307	173.0949	.3295302	.0420039
#2	1.570017	.0076178	.0157727	170.6691	.3269948	.0450069
#3	1.582973	.0076969	.0157868	171.6024	.3287782	.0453063

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3071746	165.9618	7.496780	40.86477	.2045532	-.005986
Stddev	.0053272	1.3625	.048816	.50118	.0013550	.001430
%RSD	1.734262	.8209434	.6511647	1.226433	.6624192	23.88573
#1	.3103479	167.4781	7.533711	41.44278	.2058669	-.004707
#2	.3010243	164.8405	7.441435	40.55114	.2046324	-.005722
#3	.3101515	165.5667	7.515194	40.60038	.2031604	-.007530

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.285918	.1506286	1.237211	3.099434	F 14.24835	.1333431
Stddev	.499739	.0015284	.003212	.293087	.00542	.0037045
%RSD	38.86242	1.014676	.2596182	9.456140	.0380354	2.778149
#1	1.525102	.1515991	1.233739	3.293202	14.24257	.1328522
#2	.711538	.1488668	1.240076	2.762257	14.25332	.1299086
#3	1.621113	.1514198	1.237817	3.242841	14.24916	.1372686

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-08 Acquired: 01/10/2025 14:56:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN61 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0117755	4.959177	13.04887	.0828221	.6382708	.1309404
Stddev	.0013561	.003830	.17300	.0006367	.0031238	.0016646
%RSD	11.51661	.0772380	1.325794	.7687267	.4894196	1.271253
#1	.0109315	4.957150	13.11869	.0822231	.6347676	.1325658
#2	.0110553	4.963595	12.85187	.0834908	.6407667	.1292392
#3	.0133398	4.956786	13.17606	.0827525	.6392781	.1310160

Elem	Li6707
Units	ppm
Avg	.0712658
Stddev	.0049474
%RSD	6.942216
#1	.0723982
#2	.0658503
#3	.0755488

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3653.970	33104.10	1491.560	2106.163	3320.105
Stddev	8.197	131.86	22.040	5.362	6.183
%RSD	.2243251	.3983098	1.477674	.2545770	.1862381
#1	3658.492	32954.15	1478.334	2100.309	3321.319
#2	3658.909	33201.93	1517.004	2107.343	3325.591
#3	3644.508	33156.21	1479.343	2110.836	3313.404

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-09 Acquired: 01/10/2025 15:00:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN62 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1380640	-.009734	2.256509	.0642464	.0196489	55.61543
Stddev	.0034724	.001414	.004461	.0020291	.0026623	.25911
%RSD	2.515034	14.52839	.1976808	3.158327	13.54921	.4658943
#1	.1420393	-.009097	2.252858	.0650918	.0177805	55.38306
#2	.1365295	-.011354	2.255189	.0619312	.0226972	55.56839
#3	.1356233	-.008750	2.261481	.0657160	.0184690	55.89484

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.500710	.0066320	.0089308	227.4685	.2652261	.0568082
Stddev	.005853	.0002122	.0000884	.5762	.0015394	.0005978
%RSD	.3900149	3.198843	.9896194	.2532929	.5804282	1.052315
#1	1.494155	.0067947	.0088291	226.8817	.2667188	.0562353
#2	1.505413	.0063920	.0089744	228.0335	.2636438	.0567612
#3	1.502563	.0067092	.0089889	227.4904	.2653159	.0574281

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3034919	139.8713	8.931197	37.89677	.2180865	-.004673
Stddev	.0009419	.3112	.046986	.23233	.0004466	.001717
%RSD	.3103510	.2224600	.5260853	.6130644	.2047914	36.74294
#1	.3024939	139.8483	8.878247	37.91999	.2177150	-.006064
#2	.3043652	139.5723	8.947434	38.11661	.2185820	-.005202
#3	.3036165	140.1934	8.967911	37.65369	.2179624	-.002754

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.115488	.1412739	1.700999	3.841256	F 20.20234	.1356614
Stddev	.731578	.0021384	.002883	.221595	.03668	.0008220
%RSD	65.58365	1.513680	.1694684	5.768827	.1815777	.6059571
#1	.487379	.1388675	1.700740	4.028651	20.16009	.1360897
#2	1.918741	.1419977	1.704003	3.898445	20.22076	.1361809
#3	.940344	.1429565	1.698255	3.596671	20.22615	.1347136

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-09 Acquired: 01/10/2025 15:00:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN62 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116337	5.271732	11.35279	.1101911	.6889924	.2585184
Stddev	.0011500	.015795	.08170	.0006293	.0058429	.0008166
%RSD	9.885261	.2996171	.7196105	.5710997	.8480336	.3158612
#1	.0114668	5.253700	11.25944	.1095489	.6912021	.2576298
#2	.0128580	5.283119	11.41124	.1108066	.6823669	.2592357
#3	.0105762	5.278377	11.38770	.1102179	.6934081	.2586898

Elem	Li6707
Units	ppm
Avg	.0673152
Stddev	.0056213
%RSD	8.350694
#1	.0633126
#2	.0737418
#3	.0648913

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3708.783	33455.36	1519.713	2133.809	3311.643
Stddev	30.767	122.43	6.471	11.460	29.411
%RSD	.8295797	.3659518	.4257792	.5370524	.8880954
#1	3722.596	33318.59	1525.928	2121.652	3320.784
#2	3730.224	33492.78	1513.014	2135.363	3335.397
#3	3673.530	33554.72	1520.198	2144.413	3278.747

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-10 Acquired: 01/10/2025 15:04:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN63 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1529514	-.009607	2.112443	.0636758	.0214212	56.75629
Stddev	.0036618	.000750	.012152	.0036745	.0022967	.18148
%RSD	2.394065	7.805836	.5752642	5.770596	10.72162	.3197474
#1	.1552380	-.008861	2.111741	.0674085	.0238958	56.57320
#2	.1487280	-.009598	2.100658	.0600625	.0210098	56.93611
#3	.1548883	-.010361	2.124931	.0635564	.0193580	56.75955

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.284994	.0067590	.0067536	240.3789	.3153668	.0481174
Stddev	.003064	.0002669	.0000759	.1742	.0028372	.0005634
%RSD	.2384399	3.948921	1.124501	.0724718	.8996568	1.170858
#1	1.281905	.0069235	.0067094	240.5246	.3185725	.0487062
#2	1.285043	.0064510	.0067102	240.4262	.3143492	.0475835
#3	1.288033	.0069025	.0068413	240.1859	.3131787	.0480623

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2681964	135.5539	7.258034	41.54128	.1786957	-.004291
Stddev	.0012220	.2039	.014578	.08149	.0010415	.001502
%RSD	.4556535	.1503930	.2008467	.1961551	.5828408	34.99269
#1	.2696072	135.4238	7.241362	41.46933	.1798410	-.004378
#2	.2675166	135.7888	7.264357	41.62976	.1784408	-.002748
#3	.2674653	135.4490	7.268382	41.52475	.1778053	-.005747

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.007051	.1429503	1.457536	3.475563	F 24.25908	.1318217
Stddev	.351969	.0014343	.013940	.174408	.15233	.0008285
%RSD	34.95046	1.003340	.9564282	5.018109	.6279144	.6284652
#1	1.092513	.1438242	1.472710	3.298145	24.31551	.1314638
#2	.620221	.1437317	1.454603	3.481748	24.08659	.1327689
#3	1.308419	.1412950	1.445296	3.646796	24.37514	.1312323

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-10 Acquired: 01/10/2025 15:04:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN63 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098718	4.964952	10.74071	.1422376	.5920724	.2658072
Stddev	.0010986	.032261	.04935	.0022357	.0073671	.0010334
%RSD	11.12828	.6497844	.4594883	1.571769	1.244293	.3887681
#1	.0111374	4.975873	10.79701	.1432329	.5856616	.2650541
#2	.0093138	4.928648	10.72020	.1396772	.5904351	.2653823
#3	.0091642	4.990336	10.70491	.1438028	.6001204	.2669853

Elem	Li6707
Units	ppm
Avg	.0435920
Stddev	.0010141
%RSD	2.326428
#1	.0426240
#2	.0435051
#3	.0446467

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3980.663	35583.23	1596.051	2249.749	3546.183
Stddev	9.943	379.99	11.595	29.607	8.385
%RSD	.2497892	1.067878	.7264797	1.316016	.2364613
#1	3986.153	35264.42	1585.952	2227.264	3547.537
#2	3986.650	35481.55	1593.488	2238.689	3553.809
#3	3969.185	36003.71	1608.714	2283.293	3537.204

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-11 Acquired: 01/10/2025 15:22:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN95 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0810679	-.041187	.4447787	.1038734	.0288700	55.06521
Stddev	.0007202	.003907	.0030436	.0053802	.0014265	1.89047
%RSD	.8884062	9.485330	.6843005	5.179532	4.941228	3.433145
#1	.0812567	-.043896	.4439564	.1100163	.0276844	57.07077
#2	.0816749	-.042956	.4422307	.1016047	.0304531	54.80888
#3	.0802721	-.036708	.4481490	.0999992	.0284726	53.31599

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5907733	.0079850	.0011451	33.25714	.0778362	.0139185
Stddev	.0210400	.0005335	.0001620	1.22420	.0030921	.0036119
%RSD	3.561429	6.681510	14.15080	3.681025	3.972616	25.95005
#1	.6115624	.0082938	.0009646	34.49899	.0805859	.0104006
#2	.5912662	.0082923	.0011927	33.22107	.0744889	.0137374
#3	.5694911	.0073690	.0012780	32.05138	.0784337	.0176175

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1563788	180.3467	3.257051	21.40369	.1292098	-.006223
Stddev	.0091502	7.0573	.118532	.64924	.0008223	.001711
%RSD	5.851306	3.913162	3.639255	3.033293	.6363731	27.49216
#1	.1656248	187.9624	3.384795	22.08267	.1290678	-.006137
#2	.1561841	179.0498	3.235735	21.33942	.1284679	-.004557
#3	.1473275	174.0278	3.150623	20.78897	.1300939	-.007975

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.348699	.1841522	.3597143	F -4.73814	6.334584	.0641627
Stddev	1.273217	.0082845	.0155145	.26071	.032385	.0007105
%RSD	54.20945	4.498748	4.312993	5.502370	.5112402	1.107327
#1	3.808558	.1934217	.3755294	-4.60943	6.317658	.0643687
#2	1.468145	.1815644	.3445191	-4.56682	6.314169	.0647473
#3	1.769393	.1774704	.3590945	-5.03818	6.371924	.0633719

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-11 Acquired: 01/10/2025 15:22:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN95 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065366	.5093071	11.10114	.0194635	.6648437	-.077446
Stddev	.0005179	.0023460	.55007	.0002154	.0233113	.003739
%RSD	7.923737	.4606274	4.955039	1.106758	3.506278	4.828405
#1	.0065257	.5119144	11.68854	.0194931	.6915503	-.081567
#2	.0070599	.5073668	11.01671	.0192348	.6544031	-.076501
#3	.0060242	.5086400	10.59817	.0196626	.6485777	-.074270

Elem	Li6707
Units	ppm
Avg	.0656729
Stddev	.0109514
%RSD	16.67559
#1	.0765209
#2	.0658767
#3	.0546211

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3837.108	35485.29	1276.509	2234.459	3646.129
Stddev	12.786	723.95	57.612	61.170	15.078
%RSD	.3332267	2.040135	4.513260	2.737586	.4135469
#1	3847.841	34713.70	1219.905	2173.916	3652.928
#2	3840.520	36149.63	1274.543	2296.238	3656.610
#3	3822.961	35592.54	1335.079	2233.222	3628.848

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-12 Acquired: 01/10/2025 15:26:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1275174	-.024032	8.435914	.0888413	.0284077	58.82285
Stddev	.0025382	.003207	.144110	.0013838	.0020917	.57970
%RSD	1.990497	13.34621	1.708291	1.557554	7.363096	.9854998
#1	.1253872	-.024303	8.531908	.0876657	.0284922	58.42965
#2	.1303259	-.020698	8.505632	.0884919	.0304558	58.55031
#3	.1268391	-.027095	8.270203	.0903663	.0262750	59.48860

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.191204	.0087782	.0072470	168.7082	.1521224	.0414223
Stddev	.007036	.0001158	.0001646	.5903	.0005260	.0019614
%RSD	.3211199	1.319034	2.270732	.3498708	.3457595	4.735061
#1	2.188940	.0088925	.0074051	168.4744	.1525639	.0428273
#2	2.185579	.0086610	.0072593	168.2707	.1515405	.0422582
#3	2.199094	.0087812	.0070767	169.3796	.1522630	.0391815

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8035216	172.7145	7.309425	44.36484	.2152068	-.007177
Stddev	.0087451	.6878	.041324	.32934	.0039589	.001251
%RSD	1.088346	.3982262	.5653566	.7423448	1.839592	17.42539
#1	.8008040	172.1791	7.302832	44.19365	.2177526	-.005746
#2	.7964581	172.4740	7.271794	44.15636	.2172222	-.008063
#3	.8133029	173.4902	7.353650	44.74452	.2106457	-.007721

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.713540	.1923162	3.289686	-.810442	F 12.04356	.1114181
Stddev	1.366041	.0008571	.015734	.043200	.19762	.0027441
%RSD	79.72041	.4456745	.4782958	5.330439	1.640849	2.462884
#1	1.372255	.1915431	3.298159	-.854119	12.17786	.1089244
#2	3.217866	.1921675	3.271530	-.767735	12.13617	.1109721
#3	.550499	.1932379	3.299368	-.809474	11.81664	.1143579

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-12 Acquired: 01/10/2025 15:26:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193764	5.607260	12.63570	.2601347	.8194591	.2238683
Stddev	.0006555	.090934	.12071	.0042926	.0111151	.0015841
%RSD	3.383014	1.621712	.9552898	1.650142	1.356394	.7075972
#1	.0200037	5.671554	12.58072	.2631278	.8110607	.2239453
#2	.0194294	5.647006	12.55227	.2620598	.8152533	.2222472
#3	.0186959	5.503220	12.77411	.2552165	.8320634	.2254126

Elem	Li6707
Units	ppm
Avg	.0555742
Stddev	.0057360
%RSD	10.32131
#1	.0582082
#2	.0489943
#3	.0595201

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3758.477	34053.94	1511.340	2147.728	3435.440
Stddev	57.230	121.68	5.196	11.657	55.115
%RSD	1.522690	.3573191	.3437847	.5427535	1.604319
#1	3718.309	33914.21	1513.225	2135.492	3397.279
#2	3733.117	34111.08	1515.330	2148.989	3410.414
#3	3824.005	34136.54	1505.465	2158.703	3498.629

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-14 Acquired: 01/10/2025 15:34:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1685408	-.023473	6.597848	.0756633	.0257890	65.08230	1.909607
Stddev	.0045536	.002496	.007019	.0033412	.0023423	.28757	.004687
%RSD	2.701802	10.63286	.1063904	4.415927	9.082620	.4418523	.2454562
#1	.1665898	-.022705	6.597942	.0718758	.0231139	64.79923	1.904939
#2	.1652878	-.026262	6.604820	.0781933	.0274720	65.37416	1.909568
#3	.1737449	-.021451	6.590782	.0769208	.0267810	65.07349	1.914313

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0099125	.0075820	243.8743	.1194067	.0605058	.8112200	170.8616
Stddev	.0003402	.0000598	.5667	.0007984	.0001442	.0058577	.6343
%RSD	3.432094	.7881313	.2323688	.6686602	.2382613	.7220819	.3712093
#1	.0097153	.0075781	243.2412	.1196223	.0606717	.8120307	170.1293
#2	.0097169	.0076437	244.3341	.1185226	.0604107	.8049991	171.2356
#3	.0103054	.0075244	244.0476	.1200751	.0604350	.8166300	171.2199

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.359303	44.03877	.2094900	-.007965	1.849523	.2489599	2.439552
Stddev	.037870	.32925	.0004843	.000350	.778867	.0023254	.021309
%RSD	.7066173	.7476363	.2312061	4.395721	42.11179	.9340634	.8734884
#1	5.320322	43.94958	.2100458	-.008122	1.497069	.2511838	2.463635
#2	5.395955	44.40343	.2091577	-.008210	2.742316	.2465447	2.431881
#3	5.361632	43.76330	.2092666	-.007564	1.309184	.2491513	2.423140

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.681029	7.895949	.1149780	.0155757	4.108864	12.82732	.3511761
Stddev	.201376	.014979	.0017016	.0002827	.009555	.11278	.0016255
%RSD	29.56939	.1897042	1.479958	1.815196	.2325447	.8792365	.4628785
#1	-.832979	7.903393	.1167306	.0152532	4.119864	12.84155	.3495213
#2	-.757486	7.878706	.1148710	.0156930	4.102626	12.70809	.3512364
#3	-.452621	7.905747	.1133324	.0157810	4.104102	12.93230	.3527706

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-14 Acquired: 01/10/2025 15:34:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7386292	.3817763	.0827313
Stddev	.0026909	.0013597	.0019731
%RSD	.3643082	.3561569	2.384900
#1	.7358985	.3809112	.0813494
#2	.7412785	.3833435	.0818537
#3	.7387106	.3810741	.0849910

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3701.904	34058.03	1526.949	2128.388	3372.277
Stddev	3.762	94.28	7.404	18.428	7.256
%RSD	.1016144	.2768126	.4849149	.8658153	.2151773
#1	3699.292	33972.46	1527.165	2112.754	3364.270
#2	3706.215	34042.53	1534.243	2123.704	3378.418
#3	3700.204	34159.09	1519.439	2148.706	3374.144

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-15 Acquired: 01/10/2025 15:37:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1726676	-.008124	10.06032	.0564611	.0239092	66.49724
Stddev	.0029737	.004812	.01084	.0054197	.0032624	.47745
%RSD	1.722212	59.23016	.1077518	9.598932	13.64490	.7179951
#1	.1692340	-.004524	10.05449	.0623816	.0234540	67.00095
#2	.1743620	-.006258	10.05365	.0517449	.0273752	66.05132
#3	.1744069	-.013589	10.07283	.0552568	.0208983	66.43944

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.198606	.0096614	.0067059	772.0880	.1607939	.0757485
Stddev	.027888	.0003039	.0000975	6.9205	.0006462	.0016471
%RSD	.8718708	3.145376	1.454427	.8963345	.4019047	2.174434
#1	3.229692	.0099886	.0066107	779.5808	.1604031	.0749801
#2	3.175785	.0096077	.0067014	765.9360	.1615399	.0746260
#3	3.190340	.0093880	.0068056	770.7472	.1604388	.0776394

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6166188	151.7900	5.869490	51.49908	.1659481	-.009323
Stddev	.0068207	1.4404	.043283	.54660	.0004571	.001319
%RSD	1.106138	.9489702	.7374231	1.061371	.2754706	14.14924
#1	.6237836	153.4286	5.916089	52.03429	.1657899	-.009102
#2	.6102044	151.2181	5.830544	50.94177	.1655910	-.008128
#3	.6158683	150.7233	5.861838	51.52117	.1664633	-.010739

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.655320	.2321950	3.462174	-1.56330	F 12.07833	.1516924
Stddev	.263076	.0020721	.001864	.08752	.03956	.0019378
%RSD	9.907521	.8924146	.0538423	5.598477	.3275245	1.277460
#1	2.955573	.2345867	3.461387	-1.47880	12.03479	.1535064
#2	2.545140	.2310601	3.464302	-1.55755	12.08810	.1496509
#3	2.465249	.2309382	3.460832	-1.65355	12.11208	.1519200

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-15 Acquired: 01/10/2025 15:37:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101767	4.438767	11.17035	.2270834	.7128095	1.303447
Stddev	.0003437	.005817	.09442	.0020933	.0028987	.009678
%RSD	3.377202	.1310521	.8452305	.9218306	.4066544	.7425047
#1	.0103820	4.432350	11.27284	.2294266	.7104303	1.313644
#2	.0097799	4.440255	11.08691	.2253980	.7119603	1.294388
#3	.0103682	4.443695	11.15131	.2264257	.7160379	1.302310

Elem	Li6707
Units	ppm
Avg	.0921527
Stddev	.0021180
%RSD	2.298416
#1	.0939433
#2	.0927000
#3	.0898147

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3543.866	32062.95	1499.028	2052.006	3053.432
Stddev	.785	17.17	11.181	6.454	.516
%RSD	.0221609	.0535445	.7458759	.3145093	.0169084
#1	3543.552	32046.49	1487.323	2059.385	3052.869
#2	3543.285	32080.75	1509.599	2049.217	3053.883
#3	3544.759	32061.63	1500.163	2047.415	3053.544

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-16 Acquired: 01/10/2025 15:41:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1078441	-.019258	1.445551	.1191868	.0306760	71.90614
Stddev	.0014638	.001816	.003762	.0048262	.0025704	.21286
%RSD	1.357316	9.430421	.2602424	4.049268	8.379199	.2960272
#1	.1087432	-.018753	1.443271	.1199107	.0288302	72.11174
#2	.1061551	-.017749	1.443489	.1236102	.0336118	71.68669
#3	.1086341	-.021274	1.449893	.1140396	.0295861	71.92000

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.021481	.0090221	.0065528	164.5653	.1242383	.0589164
Stddev	.010215	.0000797	.0000484	.3276	.0009199	.0007027
%RSD	.3380883	.8830648	.7379232	.1990473	.7403890	1.192694
#1	3.033080	.0090444	.0065439	164.9199	.1246891	.0590395
#2	3.013824	.0089336	.0065094	164.2739	.1231801	.0595494
#3	3.017538	.0090883	.0066049	164.5022	.1248459	.0581603

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3013583	222.9739	18.90537	47.89135	.2117717	-.011471
Stddev	.0035167	1.2496	.06939	.20111	.0012890	.000684
%RSD	1.166956	.5604159	.3670156	.4199281	.6086863	5.962728
#1	.3054086	224.4166	18.97181	48.03021	.2103177	-.011469
#2	.2990808	222.2313	18.83337	47.66073	.2122228	-.012156
#3	.2995856	222.2738	18.91091	47.98312	.2127745	-.010788

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.275690	.0790983	.6384905	-2.76144	F 15.35713	.1168364
Stddev	.471491	.0011853	.0016557	.15164	.02955	.0026282
%RSD	36.95968	1.498519	.2593162	5.491357	.1924181	2.249455
#1	1.819672	.0777298	.6371816	-2.93464	15.33313	.1174703
#2	1.022861	.0798021	.6379383	-2.69710	15.34811	.1190897
#3	.984538	.0797630	.6403518	-2.65257	15.39013	.1139493

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-16 Acquired: 01/10/2025 15:41:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0114416	3.004717	11.38997	.0656716	.6431406	.1233967
Stddev	.0006748	.001774	.12601	.0002395	.0089103	.0006741
%RSD	5.897952	.0590420	1.106325	.3647278	1.385432	.5462506
#1	.0110486	3.002704	11.53083	.0657444	.6510120	.1227973
#2	.0122209	3.006053	11.28796	.0654041	.6334669	.1241264
#3	.0110555	3.005393	11.35113	.0658663	.6449428	.1232665

Elem	Li6707
Units	ppm
Avg	.0547921
Stddev	.0037665
%RSD	6.874189
#1	.0566457
#2	.0504580
#3	.0572727

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4388.005	39590.36	1801.979	2520.390	3355.129
Stddev	12.886	139.93	5.629	16.723	6.175
%RSD	.2936545	.3534424	.3123744	.6635225	.1840322
#1	4379.527	39731.88	1795.571	2537.870	3348.774
#2	4381.656	39452.08	1806.123	2504.543	3355.506
#3	4402.833	39587.12	1804.244	2518.758	3361.106

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-17 Acquired: 01/10/2025 15:45:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNC0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0988742	-.016155	.5773641	.1018155	.0249202	65.43200
Stddev	.0035672	.004385	.0030500	.0021755	.0024375	.41738
%RSD	3.607842	27.13940	.5282649	2.136683	9.781245	.6378846
#1	.1026421	-.011099	.5792654	.1015855	.0257966	65.90843
#2	.0955489	-.018466	.5738461	.0997641	.0221656	65.13077
#3	.0984317	-.018901	.5789809	.1040968	.0267983	65.25680

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.728066	.0078806	.0056823	322.7219	.1022935	.0625577
Stddev	.000703	.0002503	.0000859	.8193	.0010457	.0007141
%RSD	.0406966	3.176616	1.511116	.2538643	1.022216	1.141476
#1	1.728086	.0080552	.0057380	323.6270	.1034925	.0618485
#2	1.727353	.0079926	.0055834	322.0310	.1015709	.0625480
#3	1.728759	.0075938	.0057255	322.5076	.1018172	.0632766

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2166486	199.0095	17.15665	50.83269	.1952111	-.008170
Stddev	.0026224	.6395	.06975	.41857	.0001136	.001121
%RSD	1.210431	.3213661	.4065681	.8234256	.0581952	13.71668
#1	.2196434	199.6447	17.22313	51.30563	.1952893	-.008351
#2	.2147636	198.3657	17.08403	50.50993	.1952633	-.006970
#3	.2155387	199.0182	17.16281	50.68251	.1950808	-.009190

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7218719	.0921554	.3987496	-3.55675	F 14.21439	.0997454
Stddev	.3115683	.0009593	.0027395	.12026	.02755	.0013928
%RSD	43.16116	1.040915	.6870318	3.381168	.1938338	1.396303
#1	.3654630	.0912865	.3960290	-3.48670	14.21939	.0993290
#2	.8575998	.0931848	.3987120	-3.69561	14.18468	.0986084
#3	.9425530	.0919949	.4015077	-3.48794	14.23909	.1012989

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-17 Acquired: 01/10/2025 15:45:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNC0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070051	2.305023	8.818018	.0671675	.6649537	.2775186
Stddev	.0004823	.005656	.098861	.0009252	.0058540	.0007938
%RSD	6.884330	.2453975	1.121126	1.377418	.8803665	.2860452
#1	.0064502	2.310913	8.931130	.0670248	.6716878	.2784156
#2	.0072431	2.299633	8.774798	.0663220	.6610778	.2769064
#3	.0073222	2.304525	8.748127	.0681557	.6620955	.2772339

Elem	Li6707
Units	ppm
Avg	.0400982
Stddev	.0043313
%RSD	10.80184
#1	.0351284
#2	.0430691
#3	.0420970

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4160.611	37815.67	1729.436	2375.659	3237.432
Stddev	16.947	234.26	23.272	16.823	9.266
%RSD	.4073129	.6194783	1.345667	.7081563	.2862021
#1	4180.145	37651.75	1703.041	2369.881	3247.237
#2	4151.836	38083.98	1747.000	2394.609	3236.239
#3	4149.851	37711.29	1738.269	2362.485	3228.821

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-21 Acquired: 01/10/2025 15:49:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHND0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1258402	-.043772	3.418668	.1330881	.0394231	64.25854
Stddev	.0014743	.001678	.004294	.0034383	.0014942	.06328
%RSD	1.171592	3.832401	.1255983	2.583496	3.790027	.0984793
#1	.1252228	-.042389	3.413721	.1303218	.0396961	64.18732
#2	.1247749	-.043287	3.420851	.1369376	.0378113	64.30831
#3	.1275228	-.045638	3.421431	.1320048	.0407619	64.27999

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.729498	.0116828	.0142699	197.5779	.1823917	.0243038
Stddev	.000807	.0001258	.0001048	.7373	.0016379	.0004845
%RSD	.0466893	1.076488	.7340902	.3731780	.8980353	1.993454
#1	1.728568	.0117813	.0143255	198.0469	.1808061	.0237852
#2	1.729897	.0117260	.0141490	197.9589	.1822916	.0247449
#3	1.730028	.0115411	.0143351	196.7281	.1840774	.0243813

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4877073	246.8625	8.526235	56.81649	.3350044	-.009810
Stddev	.0065137	.3161	.016706	.15550	.0009760	.001515
%RSD	1.335579	.1280385	.1959400	.2736813	.2913400	15.44028
#1	.4883157	246.5559	8.512606	56.65152	.3355567	-.008742
#2	.4938955	247.1873	8.544873	56.96035	.3355789	-.011544
#3	.4809107	246.8442	8.521226	56.83761	.3338775	-.009145

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9186645	.2011300	1.960325	-.611173	F 15.21614	.1393673
Stddev	.6046418	.0016551	.003743	.188104	.01317	.0028021
%RSD	65.81748	.8228908	.1909481	30.77760	.0865841	2.010588
#1	.2883192	.2019041	1.956174	-.394901	15.20121	.1388064
#2	1.493819	.2022562	1.963445	-.736723	15.22613	.1368881
#3	.973856	.1992297	1.961356	-.701893	15.22109	.1424075

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-21 Acquired: 01/10/2025 15:49:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHND0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0203372	7.859792	11.23684	.2021400	1.069612	.2130959
Stddev	.0018391	.009491	.14209	.0006572	.005790	.0007807
%RSD	9.042811	.1207501	1.264537	.3251403	.5413308	.3663725
#1	.0183914	7.860551	11.25236	.2013833	1.074505	.2135064
#2	.0205736	7.868880	11.37054	.2024675	1.063220	.2121955
#3	.0220466	7.849944	11.08762	.2025691	1.071113	.2135857

Elem	Li6707
Units	ppm
Avg	.0334256
Stddev	.0027338
%RSD	8.178845
#1	.0365074
#2	.0312926
#3	.0324768

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3743.661	34127.14	1512.746	2121.909	3394.225
Stddev	11.044	159.27	14.004	11.026	8.327
%RSD	.2950155	.4666972	.9257538	.5196196	.2453340
#1	3743.830	34213.18	1509.950	2126.047	3398.474
#2	3754.620	34224.89	1500.351	2130.267	3399.571
#3	3732.533	33943.36	1527.938	2109.412	3384.630

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-10DLX2 Acquired: 01/10/2025 15:52:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0428453	.0070610	1.658377	.0056631	.0131861	23.13625	.9903901
Stddev	.0033768	.0013092	.004253	.0014423	.0033344	.02604	.0066359
%RSD	7.881315	18.54066	.2564515	25.46835	25.28767	.1125640	.6700246
#1	.0389646	.0059150	1.657337	.0040043	.0094105	23.12287	.9974727
#2	.0451138	.0067801	1.654740	.0063637	.0157277	23.11961	.9843166
#3	.0444575	.0084877	1.663053	.0066211	.0144199	23.16626	.9893809

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034521	.0072372	552.3291	.0896857	.0465834	.2258742	75.87912
Stddev	.0002262	.0001232	3.3437	.0004023	.0003240	.0041016	.27449
%RSD	6.551365	1.702401	.6053825	.4486214	.6954758	1.815867	.3617423
#1	.0034714	.0072130	555.8945	.0901315	.0463194	.2304183	76.14590
#2	.0032169	.0071278	549.2634	.0893496	.0469450	.2224463	75.59753
#3	.0036680	.0073707	551.8295	.0895761	.0464859	.2247579	75.89393

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.103462	76.77482	.1036500	-.002055	.3401814	.0515371	1.538392
Stddev	.016980	.55762	.0010943	.000831	.5203957	.0011205	.006524
%RSD	.3327206	.7263076	1.055742	40.46062	152.9760	2.174103	.4240775
#1	5.122565	77.40042	.1040659	-.002448	.9099487	.0507579	1.532233
#2	5.097736	76.59399	.1044753	-.002617	.2206327	.0510322	1.537714
#3	5.090084	76.33006	.1024087	-.001100	-.110037	.0528211	1.545228

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-2.03068	4.383201	.0591537	.0084514	3.708737	4.598865	.0797933
Stddev	.05370	.006129	.0009484	.0012184	.009326	.044165	.0024842
%RSD	2.644624	.1398216	1.603302	14.41667	.2514617	.9603486	3.113277
#1	-2.04076	4.382510	.0581179	.0095554	3.718333	4.649661	.0806823
#2	-1.97265	4.377447	.0593636	.0071441	3.708173	4.569545	.0817107
#3	-2.07863	4.389645	.0599795	.0086546	3.699706	4.577389	.0769869

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-10DLX2 Acquired: 01/10/2025 15:52:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.3030009	.5078847	.0060441
Stddev	.0016598	.0013832	.0024665
%RSD	.5477976	.2723456	40.80840
#1	.3047750	.5094634	.0075578
#2	.3027417	.5073054	.0073765
#3	.3014858	.5068854	.0031980

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3346.954	30686.04	1386.068	1917.738	3119.346
Stddev	5.788	140.26	14.852	10.547	1.350
%RSD	.1729365	.4570686	1.071540	.5499940	.0432773
#1	3340.912	30622.62	1371.466	1920.950	3119.002
#2	3347.498	30846.81	1401.158	1926.305	3118.202
#3	3352.450	30588.69	1385.579	1905.957	3120.835

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-11DLX2 Acquired: 01/10/2025 15:56:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0386345	.0062577	1.629393	.0073098	.0081326	22.54840	.9823166
Stddev	.0024695	.0009812	.002281	.0047968	.0061606	.24113	.0088202
%RSD	6.391978	15.67955	.1400075	65.62086	75.75173	1.069398	.8978938
#1	.0398449	.0051724	1.631908	.0049344	.0131154	22.63944	.9871706
#2	.0357933	.0065187	1.627458	.0041643	.0012445	22.73077	.9876436
#3	.0402652	.0070820	1.628812	.0128308	.0100379	22.27501	.9721356

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032102	.0071021	543.2718	.0897919	.0476181	.2182426	73.30857
Stddev	.0001514	.0001141	4.0610	.0010743	.0013722	.0027792	.72607
%RSD	4.717295	1.606468	.7475088	1.196479	2.881681	1.273453	.9904305
#1	.0030440	.0072076	544.7924	.0904191	.0461963	.2195594	73.47726
#2	.0033404	.0071176	546.3530	.0885514	.0477236	.2201187	73.93544
#3	.0032463	.0069810	538.6699	.0904052	.0489346	.2150497	72.51300

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.966120	75.13849	.1021083	-.001994	1.672837	.0494147	1.501966
Stddev	.052773	.86489	.0004492	.000547	.394556	.0003640	.004428
%RSD	1.062662	1.151067	.4399330	27.42435	23.58601	.7365944	.2948184
#1	5.001377	75.20743	.1016075	-.002622	2.124286	.0497458	1.497620
#2	4.991533	75.96685	.1024757	-.001740	1.500215	.0490249	1.501806
#3	4.905448	74.24119	.1022417	-.001621	1.394012	.0494733	1.506472

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-1.72508	4.293703	.0563503	.0081545	3.631104	4.484360	.0774075
Stddev	.15607	.009010	.0043999	.0005789	.008065	.070471	.0018995
%RSD	9.047082	.2098522	7.808088	7.099265	.2221037	1.571494	2.453949
#1	-1.88900	4.291027	.0519128	.0087342	3.625671	4.527456	.0763864
#2	-1.70799	4.286334	.0607116	.0075764	3.627271	4.522589	.0795992
#3	-1.57826	4.303748	.0564266	.0081528	3.640371	4.403035	.0762369

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-11DLX2 Acquired: 01/10/2025 15:56:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2971798	.4938457	.0228835
Stddev	.0044947	.0035393	.0025576
%RSD	1.512436	.7166745	11.17657
#1	.2934881	.4951427	.0201424
#2	.3021848	.4965535	.0233022
#3	.2958664	.4898409	.0252060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3347.518	30380.59	1400.725	1909.232	3119.598
Stddev	5.143	137.92	13.571	11.054	9.109
%RSD	.1536381	.4539812	.9688694	.5789870	.2919941
#1	3348.595	30417.95	1390.899	1914.629	3128.588
#2	3352.037	30495.98	1395.066	1916.550	3119.832
#3	3341.921	30227.83	1416.210	1896.516	3110.375

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-10LDLX10 Acquired: 01/10/2025 16:00:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000715	.0098947	.3271730	-.018438	.0010065	4.788261	.2030561
Stddev	.003328	.0014478	.0016738	.007765	.0032657	.035685	.0028295
%RSD	465.7253	14.63186	.5115918	42.11240	324.4384	.7452525	1.393460
#1	.000504	.0098473	.3276522	-.026829	.0014057	4.766420	.2039941
#2	-.004480	.0084712	.3253118	-.016979	.0040543	4.768922	.2052976
#3	.001832	.0113656	.3285549	-.011506	-.002440	4.829441	.1998767

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006446	.0013977	116.4879	.0204437	.0310931	.0483892	15.69276
Stddev	.0002691	.0000691	.2353	.0006699	.0007611	.0002700	.06187
%RSD	41.74047	4.943858	.2020277	3.276758	2.447676	.5580664	.3942732
#1	.0004864	.0013179	116.2372	.0209557	.0316965	.0486876	15.71920
#2	.0004920	.0014389	116.5224	.0196856	.0313447	.0483186	15.62206
#3	.0009552	.0014361	116.7041	.0206898	.0302381	.0481615	15.73702

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.069141	16.57897	.0190753	-.000545	1.199921	.0123041	.3151768
Stddev	.009325	.12427	.0003158	.001302	.483764	.0008366	.0021475
%RSD	.8722133	.7495913	1.655500	238.7863	40.31636	6.798936	.6813787
#1	1.076631	16.43549	.0189401	.000357	.870238	.0130166	.3133016
#2	1.072095	16.65283	.0188497	.000045	.974237	.0125127	.3175196
#3	1.058697	16.64859	.0194362	-.002038	1.755288	.0113830	.3147091

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.770097	.7932768	.0077018	.0048601	.6753372	.9597568	.0151089
Stddev	.037437	.0033357	.0015400	.0003785	.0088448	.0032489	.0015129
%RSD	4.861391	.4205002	19.99505	7.787105	1.309688	.3385099	10.01320
#1	-.798422	.7942391	.0065489	.0052923	.6837886	.9577398	.0163870
#2	-.727653	.7895657	.0094507	.0045878	.6661455	.9580260	.0134385
#3	-.784216	.7960257	.0071057	.0047002	.6760775	.9635046	.0155013

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-10LDLX10 Acquired: 01/10/2025 16:00:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0542513	.1035623	.0046099
Stddev	.0010873	.0001804	.0025423
%RSD	2.004206	.1742147	55.14811
#1	.0533867	.1035788	.0016751
#2	.0538953	.1033742	.0061359
#3	.0554720	.1037339	.0060187

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3413.359	30794.93	1389.024	1937.780	3550.012
Stddev	5.991	118.33	6.453	4.325	6.763
%RSD	.1755220	.3842527	.4645353	.2232181	.1904996
#1	3410.175	30672.53	1389.692	1932.959	3544.031
#2	3409.633	30908.72	1395.116	1939.058	3548.656
#3	3420.270	30803.53	1382.263	1941.322	3557.351

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-12DLX2 Acquired: 01/10/2025 16:04:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0805791	.0568642	1.670411	.0967653	.1019927	24.58069	2.987050
Stddev	.0039341	.0047851	.004385	.0092375	.0032308	.07836	.007418
%RSD	4.882265	8.415008	.2624931	9.546249	3.167693	.3188052	.2483353
#1	.0781893	.0620412	1.674048	.0962966	.1036852	24.54793	2.988200
#2	.0784283	.0526034	1.671643	.0877711	.0982672	24.52402	2.993825
#3	.0851197	.0559481	1.665542	.1062282	.1040256	24.67012	2.979124

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0512715	.0576376	548.3103	.2995145	.5626628	.4635693	75.84602
Stddev	.0001651	.0001302	1.4900	.0013192	.0022298	.0019182	.28771
%RSD	.3219140	.2259422	.2717384	.4404501	.3962894	.4137858	.3793286
#1	.0514069	.0577734	548.3171	.3005370	.5645768	.4613841	75.54614
#2	.0510877	.0576255	549.7968	.2980254	.5631973	.4643489	76.11976
#3	.0513200	.0575138	546.8169	.2999811	.5602144	.4649749	75.87216

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.516517	75.77856	.6170772	.0341463	1.286446	.5702473	1.982080
Stddev	.016966	.28330	.0018928	.0016798	.543772	.0027660	.004907
%RSD	.3075564	.3738584	.3067415	4.919311	42.26936	.4850527	.2475646
#1	5.497015	75.62715	.6192316	.0333393	1.395299	.5676688	1.982293
#2	5.527885	76.10539	.6163192	.0360773	1.767558	.5731688	1.977070
#3	5.524652	75.60312	.6156808	.0330223	.696481	.5699044	1.986877

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-1.28661	4.385562	.0550752	.0078022	3.713364	4.672994	.0789802
Stddev	.15889	.008209	.0005987	.0002711	.013939	.020762	.0023075
%RSD	12.34965	.1871903	1.087131	3.474924	.3753771	.4443016	2.921599
#1	-1.10919	4.394599	.0548619	.0081149	3.729277	4.650861	.0764022
#2	-1.41580	4.383520	.0546123	.0076587	3.707503	4.676081	.0808523
#3	-1.33483	4.378566	.0557514	.0076331	3.703312	4.692039	.0796861

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-12DLX2 Acquired: 01/10/2025 16:04:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2987153	.5006953	.0243509
Stddev	.0036045	.0017537	.0056866
%RSD	1.206679	.3502479	23.35253
#1	.2973542	.5016197	.0184345
#2	.3028022	.4986729	.0297756
#3	.2959894	.5017934	.0248427

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3355.321	30695.20	1388.893	1921.396	3121.556
Stddev	14.833	214.40	6.575	13.005	17.306
%RSD	.4420778	.6984939	.4733768	.6768354	.5543912
#1	3349.380	30463.17	1387.887	1907.203	3107.334
#2	3344.380	30736.46	1382.880	1924.246	3116.511
#3	3372.204	30885.98	1395.913	1932.740	3140.824

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5207-12DLX2 Acquired: 01/10/2025 16:08:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN38 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0606061	.0078546	.1408048	.0052913	.0065935	24.58479	.2892609
Stddev	.0028172	.0035433	.0016893	.0055572	.0073435	.28357	.0020147
%RSD	4.648444	45.11053	1.199748	105.0252	111.3753	1.153418	.6964834
#1	.0636924	.0105108	.1408649	-.000567	-.000084	24.84781	.2905296
#2	.0599533	.0038315	.1390862	.010488	.014459	24.28439	.2903152
#3	.0581726	.0092216	.1424632	.005952	.005405	24.62217	.2869379

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029766	.0015909	516.8991	.0458772	.0615923	.1659613	73.50806
Stddev	.0001260	.0001392	3.1924	.0003506	.0000881	.0013599	.62237
%RSD	4.232533	8.750954	.6176007	.7641523	.1429950	.8193817	.8466649
#1	.0029191	.0014317	520.5377	.0461253	.0616141	.1675151	74.03705
#2	.0031211	.0016512	514.5682	.0460301	.0614953	.1649881	72.82230
#3	.0028896	.0016899	515.5913	.0454761	.0616674	.1653807	73.66484

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.922379	111.8652	.0702230	-.003284	.9842623	.0526107	.2314080
Stddev	.052708	1.3116	.0009467	.000832	.5445639	.0008624	.0021583
%RSD	.8899736	1.172441	1.348144	25.34465	55.32711	1.639124	.9326736
#1	5.973539	113.3239	.0695428	-.003558	.6871688	.0536031	.2309273
#2	5.868250	110.7834	.0713042	-.002349	.6528596	.0520439	.2337661
#3	5.925350	111.4881	.0698220	-.003944	1.612758	.0521850	.2295306

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.231198	4.174280	.0454386	.0049273	.8299879	3.060653	.0147012
Stddev	.049905	.018672	.0023406	.0008262	.0033875	.022824	.0007641
%RSD	21.58550	.4473015	5.151211	16.76823	.4081341	.7457246	5.197422
#1	-.285560	4.154151	.0455852	.0055722	.8263568	3.084366	.0150957
#2	-.187461	4.177656	.0430281	.0039960	.8305441	3.058756	.0151874
#3	-.220574	4.191034	.0477025	.0052137	.8330629	3.038837	.0138205

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5207-12DLX2 Acquired: 01/10/2025 16:08:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN38 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.3445307	.3390744	.0384358
Stddev	.0090576	.0043075	.0054167
%RSD	2.628975	1.270373	14.09286
#1	.3530451	.3438639	.0423773
#2	.3350134	.3355177	.0322592
#3	.3455336	.3378416	.0406709

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3430.898	31014.62	1415.050	1948.764	3102.320
Stddev	8.679	26.39	5.255	5.530	14.500
%RSD	.2529645	.0851000	.3713606	.2837851	.4674026
#1	3438.440	31025.94	1408.997	1949.591	3118.074
#2	3432.842	30984.45	1418.448	1942.867	3099.353
#3	3421.412	31033.46	1417.704	1953.835	3089.533

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5207-22DLX2 Acquired: 01/10/2025 16:11:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN60 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0359627	.0034012	.1592100	.0338213	.0153292	39.75581	.6896602
Stddev	.0030568	.0001121	.0036269	.0033191	.0010143	.30066	.0051838
%RSD	8.499823	3.296403	2.278054	9.813649	6.616956	.7562565	.7516484
#1	.0341772	.0032744	.1620880	.0355120	.0142399	40.00560	.6943773
#2	.0342186	.0034419	.1604057	.0299973	.0155013	39.83971	.6904928
#3	.0394922	.0034872	.1551362	.0359547	.0162465	39.42211	.6841105

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045076	.0029998	476.1462	.0779268	.0512158	.1339241	119.3699
Stddev	.0004796	.0000646	3.0410	.0009304	.0005974	.0060344	1.1190
%RSD	10.63934	2.152722	.6386742	1.193983	1.166427	4.505807	.9374289
#1	.0049278	.0029336	478.7878	.0774095	.0517282	.1406325	120.3021
#2	.0046099	.0030627	476.8290	.0790010	.0513596	.1289386	119.6788
#3	.0039851	.0030030	472.8218	.0773701	.0505596	.1322010	118.1289

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.40150	232.3207	.1231544	-.004713	.7077989	.0541156	.3856104
Stddev	.05518	1.2997	.0010353	.001487	1.603118	.0035814	.0036408
%RSD	.4449225	.5594423	.8406586	31.55331	226.4935	6.617969	.9441756
#1	12.45660	232.6946	.1234183	-.006058	-.054415	.0580725	.3858492
#2	12.40165	233.3924	.1240322	-.003116	-.372005	.0510964	.3891259
#3	12.34624	230.8750	.1220126	-.004965	2.549817	.0531779	.3818560

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.507607	3.191597	.0785670	.0047800	1.006017	7.036803	.0228287
Stddev	.291741	.018251	.0021152	.0002664	.004594	.247134	.0014472
%RSD	11.63425	.5718316	2.692250	5.572812	.4567000	3.512015	6.339217
#1	2.532202	3.192601	.0781929	.0044774	1.011182	7.322030	.0241086
#2	2.204347	3.209325	.0808443	.0048836	1.002384	6.886515	.0212583
#3	2.786273	3.172866	.0766638	.0049791	1.004486	6.901863	.0231190

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5207-22DLX2 Acquired: 01/10/2025 16:11:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN60 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.6062409	.0937458	.0774299
Stddev	.0021127	.0007093	.0026861
%RSD	.3484976	.7566472	3.469082
#1	.6041987	.0931428	.0800245
#2	.6084177	.0945273	.0746608
#3	.6061062	.0935672	.0776046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3503.345	31827.82	1423.714	1994.850	3042.696
Stddev	12.210	199.29	49.763	18.158	13.299
%RSD	.3485188	.6261425	3.495328	.9102409	.4370697
#1	3499.786	31853.13	1366.351	1990.876	3046.821
#2	3493.309	31617.09	1449.480	1979.009	3027.823
#3	3516.938	32013.25	1455.311	2014.666	3053.443

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-09DLX2 Acquired: 01/10/2025 16:15:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMP2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0111755	.0144390	.1716174	-.008720	.0016838	22.99453	.2864307
Stddev	.0036310	.0018516	.0028190	.002586	.0057380	.12484	.0014097
%RSD	32.49094	12.82379	1.642623	29.66063	340.7700	.5428970	.4921646
#1	.0095654	.0125312	.1729098	-.011347	-.000771	22.89394	.2866155
#2	.0153332	.0145569	.1683838	-.008637	.008241	22.95540	.2849377
#3	.0086280	.0162289	.1735584	-.006176	-.002419	23.13424	.2877389

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025331	.0017738	681.7609	.0479662	.0498962	.1030691	56.64057
Stddev	.0001430	.0001431	1.8730	.0002725	.0008609	.0001242	.16353
%RSD	5.643380	8.068870	.2747322	.5681466	1.725412	.1204533	.2887164
#1	.0024988	.0019360	679.7439	.0480747	.0489445	.1031423	56.45552
#2	.0024104	.0016650	682.0934	.0476561	.0506209	.1031393	56.76563
#3	.0026901	.0017206	683.4453	.0481677	.0501230	.1029258	56.70057

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.512498	116.7794	.0603373	-.002955	1.246296	.0480164	.3350932
Stddev	.016618	.2330	.0009684	.001327	1.101272	.0007367	.0022984
%RSD	.3682580	.1994903	1.604905	44.90392	88.36358	1.534153	.6859082
#1	4.499854	116.5854	.0614554	-.002439	.951261	.0471904	.3375921
#2	4.506320	116.7150	.0597682	-.004462	2.465035	.0482536	.3330696
#3	4.531319	117.0378	.0597883	-.001963	.322592	.0486053	.3346178

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.105968	2.959214	.0552366	.0034202	.9558243	4.625655	.0156942
Stddev	.215136	.003257	.0014304	.0001721	.0052933	.028884	.0010728
%RSD	203.0201	.1100731	2.589566	5.032546	.5537951	.6244236	6.835376
#1	-.260492	2.959935	.0559627	.0032794	.9515871	4.615602	.0144704
#2	.139743	2.955657	.0561582	.0036121	.9541280	4.658222	.0161400
#3	-.197154	2.962051	.0535887	.0033692	.9617578	4.603141	.0164722

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-09DLX2 Acquired: 01/10/2025 16:15:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMP2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2272601	.5645877	.0378739
Stddev	.0093516	.0006270	.0054719
%RSD	4.114909	.1110569	14.44765
#1	.2331178	.5638660	.0332094
#2	.2164753	.5648990	.0365152
#3	.2321873	.5649982	.0438971

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3388.363	30453.90	1405.310	1931.760	3084.316
Stddev	10.615	41.91	11.654	3.555	11.693
%RSD	.3132925	.1376321	.8293079	.1840247	.3791098
#1	3390.398	30469.11	1416.061	1929.943	3083.662
#2	3397.813	30406.51	1392.925	1929.481	3096.322
#3	3376.877	30486.09	1406.944	1935.857	3072.964

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCV145 Acquired: 01/10/2025 16:19:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV145 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.035099	4.802015	24.84639	5.103914	5.061129	384.7145
Stddev	.008019	.003145	.02022	.015259	.001746	1.3368
%RSD	.1592684	.0655000	.0813652	.2989705	.0344893	.3474827
#1	5.043151	4.799472	24.84054	5.117612	5.059652	385.1066
#2	5.035034	4.801042	24.82975	5.087467	5.063055	385.8114
#3	5.027113	4.805532	24.86889	5.106662	5.060679	383.2255

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.26642	.4873083	2.497302	401.3975	15.88307	2.408101
Stddev	.04008	.0037624	.001174	1.2706	.02282	.002379
%RSD	.3903915	.7720748	.0469907	.3165390	.1436874	.0987854
#1	10.25279	.4910793	2.496249	401.5776	15.90663	2.410846
#2	10.31154	.4872909	2.497090	402.5684	15.88152	2.406629
#3	10.23493	.4835546	2.498567	400.0464	15.86107	2.406829

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.59135	385.8517	14.05524	386.6848	2.496249	1.269049
Stddev	.10527	1.4285	.07718	1.6026	.001825	.002516
%RSD	.7214331	.3702311	.5490854	.4144472	.0731194	.1982550
#1	14.67273	386.0240	14.07803	387.3633	2.497741	1.271704
#2	14.62884	387.1863	14.11846	387.8366	2.494214	1.268741
#3	14.47247	384.3448	13.96924	384.8546	2.496791	1.266701

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	379.8387	2.352798	14.62839	151.2257	4.958626	4.868145
Stddev	2.7838	.019967	.03162	.8579	.003962	.032993
%RSD	.7329019	.8486578	.2161797	.5673199	.0799074	.6777402
#1	378.9174	2.370979	14.66467	150.5282	4.956414	4.891195
#2	382.9664	2.355986	14.61384	152.1837	4.956265	4.882889
#3	377.6323	2.331428	14.60666	150.9652	4.963201	4.830350

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCV145 Acquired: 01/10/2025 16:19:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV145 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.901576	5.048643	F 8.978367	4.995628	4.893011	4.697173
Stddev	.004214	.001958	.082097	.006879	.026807	.019843
%RSD	.0859739	.0387860	.9143816	.1377080	.5478654	.4224467
#1	4.906222	5.048257	9.029691	4.988556	4.870633	4.701646
#2	4.900508	5.050766	9.021729	4.996029	4.922722	4.714397
#3	4.897999	5.046907	8.883682	5.002297	4.885679	4.675475

Elem	Li6707
Units	ppm
Avg	4.964946
Stddev	.034456
%RSD	.6939844
#1	4.925245
#2	4.987052
#3	4.982541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2840.657	26427.78	1281.750	1607.183	2807.290
Stddev	3.727	92.99	11.486	4.512	1.988
%RSD	.1311893	.3518622	.8961110	.2807168	.0708195
#1	2837.592	26455.04	1277.096	1605.725	2808.046
#2	2839.572	26324.21	1273.321	1603.580	2805.035
#3	2844.805	26504.10	1294.832	1612.243	2808.790

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCB145 Acquired: 01/10/2025 16:22:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB145 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014681	.0018710	-.000572	-.007270	.0019964	-.009818
Stddev	.0054677	.0007120	.002147	.005644	.0053113	.035505
%RSD	372.4238	38.05657	375.4235	77.63321	266.0454	361.6138
#1	.0032432	.0022615	.001907	-.006506	.0038218	-.048486
#2	-.004667	.0010491	-.001800	-.013258	-.003987	-.002284
#3	.005828	.0023023	-.001822	-.002047	.006154	.021314

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004442	.0000980	.0001409	-.000538	.0015146	-.000008
Stddev	.004252	.0000732	.0000517	.036316	.0002130	.000272
%RSD	95.72468	74.67326	36.67799	6755.345	14.06375	3256.697
#1	-.007316	.0001818	.0001691	.017258	.0017076	-.000130
#2	.000442	.0000659	.0001723	-.042319	.0012861	.000303
#3	-.006452	.0000464	.0000812	.023447	.0015502	-.000199

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011388	.0854312	-.002237	-.098053	.0005997	-.000297
Stddev	.0004257	.0482026	.002133	.119160	.0002366	.000751
%RSD	37.37967	56.42273	95.35238	121.5262	39.44718	252.5568
#1	.0009287	.0582378	-.001107	-.020933	.0005871	-.001165
#2	.0008591	.0569698	-.004697	-.037929	.0003697	.000148
#3	.0016287	.1410859	-.000906	-.235297	.0008423	.000124

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.146841	-.000109	-.000164	.6840908	-.000689	.0046774
Stddev	.591887	.000497	.000245	.1084780	.002401	.0012374
%RSD	51.61017	456.7778	149.5664	15.85725	348.4144	26.45468
#1	.647438	-.000678	-.000026	.7030995	.001901	.0046883
#2	1.800618	.000235	-.000447	.7818080	-.002839	.0059094
#3	.992467	.000117	-.000019	.5673648	-.001129	.0034347

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCB145 Acquired: 01/10/2025 16:22:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB145 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000230	.0002888	-.002405	-.000153	-.006180	.0000194
Stddev	.0004152	.0016789	.001215	.001666	.001810	.0003943
%RSD	1808.197	581.3400	50.51878	1085.705	29.28446	2029.062
#1	-.000280	.0011755	-.003252	.000749	-.007876	-.000159
#2	-.000147	.0013384	-.001013	-.002076	-.006390	-.000254
#3	.000496	-.001648	-.002949	.000867	-.004274	.000471

Elem	Li6707
Units	ppm
Avg	F .0453344
Stddev	.0056274
%RSD	12.41301
#1	.0516844
#2	.0433530
#3	.0409657

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3542.961	32024.08	1396.960	2027.058	4042.375
Stddev	3.169	88.08	9.955	7.142	5.097
%RSD	.0894389	.2750466	.7126435	.3523297	.1260890
#1	3545.259	32050.71	1407.900	2018.996	4044.620
#2	3544.278	31925.75	1394.546	2029.586	4036.541
#3	3539.346	32095.77	1388.433	2032.592	4045.964

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-12DLX5 Acquired: 01/10/2025 16:26:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMP5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0120308	-.001115	.0648162	.0374517	.0040249	25.38110	.2388026
Stddev	.0052930	.003003	.0008791	.0021042	.0025018	.02783	.0023060
%RSD	43.99586	269.3242	1.356251	5.618426	62.15819	.1096503	.9656634
#1	.0177701	-.001838	.0638925	.0377161	.0065777	25.37703	.2380259
#2	.0073415	-.003691	.0649136	.0352278	.0039194	25.35552	.2369853
#3	.0109806	.002184	.0656425	.0394113	.0015775	25.41073	.2413967

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012111	.0007987	6.232246	.0354952	.0333352	.0190043	51.79087
Stddev	.0002799	.0000224	.042030	.0004546	.0003642	.0008177	.06481
%RSD	23.11367	2.803467	.6743926	1.280853	1.092432	4.302810	.1251382
#1	.0009965	.0008176	6.247516	.0357270	.0330613	.0191814	51.76465
#2	.0011090	.0008044	6.264507	.0349713	.0337484	.0197189	51.86469
#3	.0015277	.0007740	6.184716	.0357871	.0331957	.0181125	51.74328

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.32355	5.130470	.0341432	-.000631	.3806164	.0010155	.0919291
Stddev	.03899	.220365	.0004829	.000368	.2031463	.0008382	.0003883
%RSD	.2926764	4.295214	1.414400	58.31706	53.37298	82.54803	.4223501
#1	13.35414	5.292779	.0340815	-.000797	.3666705	.0014709	.0923628
#2	13.33688	4.879602	.0336941	-.000888	.1848023	.0000481	.0916139
#3	13.27964	5.219028	.0346540	-.000209	.5903763	.0015274	.0918105

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.740572	2.522530	.0177396	.0033945	.3107347	3.126347	.0055302
Stddev	.094679	.010531	.0013378	.0004078	.0008030	.039756	.0010190
%RSD	12.78459	.4174764	7.541364	12.01444	.2584128	1.271640	18.42628
#1	-.667601	2.524632	.0166798	.0029423	.3113503	3.133695	.0044531
#2	-.847560	2.511107	.0172962	.0035067	.3098264	3.161916	.0064789
#3	-.706555	2.531852	.0192428	.0037345	.3110273	3.083430	.0056588

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-12DLX5 Acquired: 01/10/2025 16:26:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMP5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2289281	-.033965	.0207020
Stddev	.0013338	.000147	.0046420
%RSD	.5826059	.4316906	22.42300
#1	.2304080	-.034098	.0249367
#2	.2278190	-.033989	.0157388
#3	.2285574	-.033808	.0214305

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3557.376	32305.79	1401.746	2030.990	3808.159
Stddev	5.224	32.60	13.867	3.305	6.754
%RSD	.1468535	.1009260	.9892972	.1627504	.1773630
#1	3551.763	32305.28	1403.358	2027.173	3800.606
#2	3558.269	32338.65	1387.142	2032.903	3813.619
#3	3562.097	32273.44	1414.736	2032.893	3810.252

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-05A Acquired: 01/10/2025 16:30:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMP0A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4915894	.0322605	1.486446	.3003983	.1128972	96.36779	1.996631
Stddev	.0056555	.0014433	.003328	.0041337	.0010363	.37073	.001001
%RSD	1.150447	4.474042	.2239017	1.376060	.9178666	.3847015	.0501428
#1	.4980820	.0308255	1.485512	.3038758	.1131632	96.16331	1.995522
#2	.4889510	.0337120	1.483685	.2958281	.1137745	96.14433	1.996901
#3	.4877353	.0322439	1.490142	.3014910	.1117539	96.79573	1.997469

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0111517	.0108836	78.80843	.1439359	.0624182	.2283060	218.1405
Stddev	.0003343	.0001038	.13845	.0010992	.0005060	.0012645	.6509
%RSD	2.997293	.9534972	.1756778	.7636897	.8106780	.5538453	.2983668
#1	.0113227	.0110006	78.95860	.1448600	.0626907	.2293568	217.7748
#2	.0107666	.0108476	78.68587	.1427203	.0627295	.2286585	217.7548
#3	.0113659	.0108027	78.78082	.1442274	.0618343	.2269027	218.8920

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.14710	28.94359	.1985119	.0073133	.7829421	.1362987	1.514737
Stddev	.04919	.03593	.0010204	.0012782	.0630777	.0026662	.003310
%RSD	.2868939	.1241447	.5140253	17.47799	8.056498	1.956173	.2185215
#1	17.15834	28.98260	.1983969	.0085332	.7434414	.1393749	1.510984
#2	17.09325	28.91185	.1995849	.0059838	.8556884	.1346540	1.515991
#3	17.18970	28.93631	.1975539	.0074230	.7496965	.1348672	1.517237

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-1.78497	6.257749	.0984673	.0093140	1.979227	14.01069	.0778852
Stddev	.20112	.017554	.0010390	.0006882	.006413	.10094	.0012291
%RSD	11.26753	.2805105	1.055183	7.388258	.3240391	.7204782	1.578107
#1	-1.89990	6.277921	.0982774	.0100185	1.986503	14.12387	.0776260
#2	-1.55274	6.249386	.0975364	.0086434	1.976784	13.97827	.0768064
#3	-1.90228	6.245941	.0995882	.0092802	1.974394	13.92995	.0792233

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-05A Acquired: 01/10/2025 16:30:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMP0A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5912713	-.028646	.0933700
Stddev	.0043782	.000446	.0025989
%RSD	.7404685	1.556609	2.783415
#1	.5884454	-.028255	.0918230
#2	.5890539	-.028551	.0963704
#3	.5963146	-.029132	.0919165

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4598.180	42004.83	1839.885	2627.801	3511.711
Stddev	8.901	263.14	12.427	21.325	8.226
%RSD	.1935692	.6264484	.6754059	.8115312	.2342383
#1	4601.874	42076.33	1829.385	2635.932	3511.479
#2	4604.638	42224.82	1853.605	2643.864	3520.050
#3	4588.027	41713.33	1836.666	2603.606	3503.603

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-10A Acquired: 01/10/2025 16:34:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0781499	-.004029	3.081399	.0385987	.0186896	42.40360
Stddev	.0029836	.005012	.003842	.0023342	.0041025	.17575
%RSD	3.817753	124.3923	.1246937	6.047372	21.95093	.4144645
#1	.0799330	-.005162	3.077121	.0412568	.0143176	42.60460
#2	.0747055	-.008378	3.084555	.0368829	.0224553	42.27890
#3	.0798113	.001452	3.082521	.0376565	.0192960	42.32730

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.813965	.0060034	.0138128	F 965.5188	.1606912	.0584509
Stddev	.003441	.0001132	.0000783	2.4375	.0001849	.0004232
%RSD	.1896817	1.884721	.5670650	.2524511	.1150429	.7239405
#1	1.815997	.0061115	.0137502	968.3186	.1605022	.0579650
#2	1.815905	.0060129	.0137875	964.3680	.1608716	.0586495
#3	1.809992	.0058858	.0139006	963.8698	.1606999	.0587382

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3925535	132.6514	8.890753	133.0029	.1919955	.0125099
Stddev	.0054520	.6744	.025345	.8831	.0001171	.0005608
%RSD	1.388864	.5083969	.2850766	.6639691	.0610011	4.482654
#1	.3988423	133.3939	8.919853	133.9666	.1918679	.0130097
#2	.3896592	132.4833	8.873500	132.2323	.1920982	.0126165
#3	.3891589	132.0769	8.878907	132.8099	.1920203	.0119034

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.237473	.0914932	7.144452	-2.72978	8.394677	.1100284
Stddev	.697516	.0020063	.004780	.09995	.015256	.0026768
%RSD	31.17427	2.192808	.0669085	3.661315	.1817321	2.432817
#1	1.960127	.0937509	7.149940	-2.68599	8.378065	.1074511
#2	1.721289	.0899147	7.142224	-2.65920	8.397908	.1127946
#3	3.031003	.0908140	7.141193	-2.84414	8.408059	.1098395

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5202-10A Acquired: 01/10/2025 16:34:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNG5A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0111754	7.140349	17.67517	.1435886	.5989892	.9020569
Stddev	.0010016	.008361	.26532	.0016216	.0090564	.0001060
%RSD	8.962310	.1170964	1.501115	1.129358	1.511941	.0117528
#1	.0121805	7.141636	17.97963	.1454213	.6057451	.9020803
#2	.0101774	7.131419	17.55253	.1423397	.5886985	.9019411
#3	.0111684	7.147992	17.49336	.1430047	.6025239	.9021492

Elem	Li6707
Units	ppm
Avg	.0416521
Stddev	.0017425
%RSD	4.183495
#1	.0417865
#2	.0398463
#3	.0433236

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3465.871	31549.46	1443.894	1990.407	3004.384
Stddev	7.330	24.10	19.761	1.994	3.648
%RSD	.2115040	.0763934	1.368562	.1002001	.1214309
#1	3461.631	31521.86	1421.224	1991.380	3008.363
#2	3461.647	31566.40	1452.985	1988.113	3001.196
#3	3474.336	31560.11	1457.472	1991.728	3003.593

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-18A Acquired: 01/10/2025 16:38:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNC1A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0297876	-.003974	.1241267	.0404371	.0142188	48.80758	.3757748
Stddev	.0005652	.003154	.0020363	.0036677	.0032508	.17805	.0059566
%RSD	1.897466	79.37057	1.640473	9.070048	22.86265	.3648050	1.585162
#1	.0300486	-.007443	.1218480	.0422961	.0152193	48.84327	.3764382
#2	.0291391	-.001279	.1247641	.0428031	.0105853	48.96508	.3813720
#3	.0301752	-.003200	.1257680	.0362122	.0168517	48.61438	.3695143

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049605	.0013838	520.5226	.0839330	.0617217	.1795095	130.0054
Stddev	.0000152	.0000322	1.8485	.0004803	.0003930	.0004237	.5539
%RSD	.3062513	2.329947	.3551208	.5721887	.6367574	.2360616	.4260381
#1	.0049451	.0014180	521.3667	.0833786	.0621324	.1792162	129.9015
#2	.0049755	.0013539	521.7984	.0842202	.0613491	.1793169	130.6039
#3	.0049608	.0013793	518.4028	.0842003	.0616835	.1799953	129.5108

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.280848	98.96240	.1440741	.0079042	1.629006	.1177305	.2784398
Stddev	.030382	.51967	.0012472	.0008826	.428190	.0015275	.0016435
%RSD	.4837212	.5251140	.8656782	11.16667	26.28536	1.297478	.5902442
#1	6.286891	99.08080	.1439981	.0078320	1.253242	.1194749	.2777761
#2	6.307755	99.41265	.1453576	.0088207	1.538594	.1166322	.2803114
#3	6.247900	98.39375	.1428666	.0070599	2.095183	.1170844	.2772320

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-2.66624	6.228441	.0788122	.0041915	.7331092	18.16434	.0210367
Stddev	.07003	.014296	.0014822	.0007761	.0026889	.05620	.0006525
%RSD	2.626405	.2295346	1.880681	18.51628	.3667778	.3094211	3.101581
#1	-2.61485	6.235504	.0802318	.0050408	.7358953	18.12750	.0214860
#2	-2.74600	6.211988	.0772745	.0040148	.7305294	18.22903	.0213358
#3	-2.63787	6.237831	.0789303	.0035190	.7329028	18.13648	.0202883

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-18A Acquired: 01/10/2025 16:38:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNC1A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.9076313	.5659314	.0750596
Stddev	.0098441	.0017544	.0014464
%RSD	1.084597	.3099957	1.927022
#1	.9110361	.5670528	.0736196
#2	.9153210	.5668317	.0750467
#3	.8965367	.5639097	.0765124

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3691.016	33182.79	1505.693	2107.895	3226.598
Stddev	12.088	63.21	2.648	5.746	8.884
%RSD	.3274975	.1904786	.1758338	.2725901	.2753235
#1	3704.940	33139.99	1502.739	2104.665	3236.806
#2	3683.215	33255.39	1507.851	2104.491	3222.372
#3	3684.892	33153.00	1506.489	2114.529	3220.617

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5207-13A Acquired: 01/10/2025 16:42:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN39A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1294619	.0094725	.2035318	.1098576	.0479126	94.74174	.6349110
Stddev	.0015956	.0026368	.0025909	.0089367	.0029465	.46694	.0025499
%RSD	1.232509	27.83601	1.272976	8.134804	6.149775	.4928599	.4016139
#1	.1276257	.0075276	.2042197	.1008964	.0510653	95.06176	.6370333
#2	.1302492	.0124736	.2057093	.1187696	.0452284	94.20593	.6320824
#3	.1305109	.0084163	.2006663	.1099069	.0474440	94.95752	.6356174

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079266	.0026202	757.7367	.4383293	.1282333	2.711259	254.7868
Stddev	.0003395	.0000737	2.6699	.0011716	.0004920	.012612	.6335
%RSD	4.282996	2.810703	.3523487	.2672965	.3837167	.4651734	.2486407
#1	.0082912	.0026315	760.0946	.4382756	.1287473	2.725651	255.3796
#2	.0076196	.0026876	754.8377	.4395269	.1281859	2.705986	254.1192
#3	.0078690	.0025416	758.2777	.4371855	.1277666	2.702138	254.8615

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.450913	253.7971	.2416865	-.002481	1.318136	.4584823	.7444673
Stddev	.026984	1.3913	.0011799	.000624	.695930	.0032989	.0025856
%RSD	.4182965	.5482097	.4881786	25.16471	52.79652	.7195328	.3473044
#1	6.466199	254.3654	.2409891	-.001914	2.082530	.4611897	.7463054
#2	6.419757	252.2115	.2410216	-.003150	.721241	.4548079	.7415108
#3	6.466785	254.8143	.2430487	-.002379	1.150638	.4594492	.7455857

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.79347	7.355725	.1221931	.0041084	1.840370	9.750787	.0719771
Stddev	.17746	.018673	.0030233	.0010851	.008600	.033478	.0016676
%RSD	.3961661	.2538553	2.474187	26.41245	.4673040	.3433326	2.316895
#1	44.92822	7.343390	.1219484	.0053593	1.840194	9.789427	.0734922
#2	44.59240	7.346576	.1253313	.0035466	1.831859	9.732456	.0701903
#3	44.85978	7.377208	.1192996	.0034193	1.849056	9.730478	.0722489

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5207-13A Acquired: 01/10/2025 16:42:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN39A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	25.21236	.2685472	.1141568
Stddev	.08347	.0007899	.0015377
%RSD	.3310776	.2941340	1.347032
#1	25.27267	.2687905	.1125222
#2	25.11710	.2676643	.1143733
#3	25.24733	.2691868	.1155747

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3528.389	32221.44	1495.885	2035.165	2934.475
Stddev	9.864	54.50	6.803	11.601	9.794
%RSD	.2795632	.1691536	.4547580	.5700281	.3337405
#1	3517.050	32283.84	1488.070	2024.113	2925.116
#2	3533.128	32197.30	1500.478	2047.247	2944.652
#3	3534.990	32183.17	1499.106	2034.136	2933.658

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-17DLX5 Acquired: 01/10/2025 16:45:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMW4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0168179	.0171537	.0671334	-.023971	.0039152	7.873563	.0909467
Stddev	.0030310	.0035026	.0022533	.002013	.0008914	.095135	.0014118
%RSD	18.02255	20.41916	3.356407	8.396794	22.76840	1.208288	1.552285
#1	.0197966	.0194334	.0670653	-.024114	.0032167	7.779149	.0918436
#2	.0137371	.0189070	.0694199	-.021890	.0036097	7.872135	.0893194
#3	.0169201	.0131206	.0649149	-.025908	.0049192	7.969404	.0916771

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011745	.0006678	603.6036	.0160425	.0478541	.0779138	39.47359
Stddev	.0001032	.0001213	4.2646	.0003815	.0009580	.0011409	.32849
%RSD	8.782841	18.16620	.7065288	2.377789	2.001964	1.464280	.8321774
#1	.0012582	.0008079	598.6974	.0164554	.0489425	.0782865	39.09590
#2	.0012060	.0005983	606.4231	.0159690	.0471384	.0766332	39.63208
#3	.0010593	.0005972	605.6902	.0157032	.0474813	.0788218	39.69278

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.707892	31.44501	.0331941	-.001478	.4396443	.0153625	.1869524
Stddev	.025485	.50430	.0010148	.000999	.4234449	.0003798	.0016439
%RSD	.6873069	1.603758	3.057108	67.63308	96.31535	2.472162	.8793285
#1	3.683318	30.86306	.0336392	-.002600	.2642906	.0157721	.1862230
#2	3.706159	31.71808	.0339103	-.000682	.9225981	.0150221	.1888348
#3	3.734198	31.75390	.0320329	-.001152	.1320441	.0152933	.1857993

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.890065	1.426428	.0224704	.0043320	1.766203	1.482663	.0109419
Stddev	.170128	.002972	.0003567	.0009044	.008134	.006156	.0021229
%RSD	19.11410	.2083610	1.587269	20.87654	.4605263	.4152056	19.40186
#1	-.757570	1.426054	.0221245	.0042831	1.762697	1.475598	.0100954
#2	-.830703	1.423660	.0228369	.0052599	1.760410	1.485517	.0133574
#3	-1.08192	1.429569	.0224499	.0034531	1.775502	1.486875	.0093727

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5198-17DLX5 Acquired: 01/10/2025 16:45:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMW4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.1036769	.7044407	.0245859
Stddev	.0094962	.0054885	.0047030
%RSD	9.159386	.7791351	19.12865
#1	.0996634	.6981650	.0282217
#2	.0968464	.7083440	.0192746
#3	.1145208	.7068131	.0262614

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3369.071	30516.47	1387.485	1924.050	3225.176
Stddev	12.810	73.43	7.073	10.288	12.172
%RSD	.3802197	.2406205	.5097993	.5347253	.3774005
#1	3375.559	30601.04	1394.892	1935.060	3231.069
#2	3354.315	30479.48	1386.763	1914.680	3211.179
#3	3377.338	30468.89	1380.800	1922.411	3233.280

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-13 Acquired: 01/10/2025 17:13:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0564113	-.093648	4.911951	.1610989	.0433009	52.35266	1.873518
Stddev	.0475568	.044983	.546139	.0531956	.0095820	.34099	.003349
%RSD	84.30370	48.03439	11.11858	33.02049	22.12886	.6513401	.1787328
#1	.1113243	-.072945	5.340172	.2040481	.0534815	52.44334	1.870650
#2	.0286874	-.062744	4.296919	.1776545	.0419631	51.97550	1.872707
#3	.0292221	-.145256	5.098762	.1015940	.0344581	52.63915	1.877198

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0136319	.0115415	153.2955	.1024908	-.018249	.8423822	363.2785
Stddev	.0001357	.0024217	.2332	.0014627	.023517	.0055369	1.5473
%RSD	.9958193	20.98250	.1521122	1.427136	128.8660	.6572853	.4259143
#1	.0136777	.0129496	153.4205	.1020092	-.041345	.8399304	364.2732
#2	.0137388	.0087452	153.4395	.1013297	-.019071	.8384945	361.4959
#3	.0134792	.0129297	153.0264	.1041336	.005668	.8487216	364.0665

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.236989	35.17798	.1646965	-.016000	1.282797	.1992905	4.065648
Stddev	.014371	.51164	.0218146	.000709	1.051520	.0008190	.038753
%RSD	.2304234	1.454428	13.24535	4.432992	81.97090	.4109461	.9531874
#1	6.232468	35.40605	.1889989	-.016521	.985678	.1988388	4.107881
#2	6.225421	34.59196	.1468073	-.016287	2.450908	.1987967	4.031722
#3	6.253077	35.53591	.1582834	-.015192	.411805	.2002358	4.057342

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-3.49067	6.338139	.1555442	.0257590	3.025872	19.65085	.1753929
Stddev	.20467	.879259	.0031244	.0142331	.583802	.32902	.0178370
%RSD	5.863460	13.87250	2.008694	55.25484	19.29369	1.674349	10.16971
#1	-3.46145	7.240358	.1582615	.0128593	3.606375	19.28186	.1953413
#2	-3.70838	5.483797	.1562408	.0233896	2.438825	19.75696	.1609799
#3	-3.30218	6.290264	.1521303	.0410281	3.032415	19.91372	.1698575

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: P5203-13 Acquired: 01/10/2025 17:13:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHNB6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.6011735	-.007655	.0468882
Stddev	.0026676	.001040	.0005259
%RSD	.4437379	13.58785	1.121682
#1	.5980960	-.008850	.0473543
#2	.6025967	-.007160	.0469922
#3	.6028277	-.006954	.0463179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1261.729	33393.41	1444.261	2086.653	1275.396
Stddev	1395.735	379.89	4.990	23.363	1323.435
%RSD	110.6208	1.137618	.3454837	1.119641	103.7666
#1	2853.051	32956.04	1445.265	2059.700	2776.320
#2	687.084	33641.17	1448.672	2099.146	773.734
#3	245.053	33583.03	1438.845	2101.114	276.134

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCV146 Acquired: 01/10/2025 17:19:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV146 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.042154	5.003771	25.66786	5.271400	5.236484	407.4736
Stddev	.006465	.022927	.07503	.005884	.015085	15.7765
%RSD	.1282286	.4582024	.2922983	.1116173	.2880710	3.871776
#1	5.041088	4.984794	25.59368	5.264637	5.219172	408.3899
#2	5.049086	4.997273	25.66621	5.275341	5.243473	422.7719
#3	5.036288	5.029246	25.74370	5.274224	5.246807	391.2589

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.63963	.5276420	2.578871	423.1198	16.38572	2.484782
Stddev	.45182	.0172620	.009460	17.2349	.22899	.018742
%RSD	4.246552	3.271540	.3668307	4.073295	1.397520	.7542901
#1	10.64843	.5412613	2.569108	423.9488	16.26878	2.472562
#2	11.08699	.5334365	2.579508	439.9252	16.23880	2.475422
#3	10.18348	.5082283	2.587996	405.4853	16.64957	2.506360

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.01113	408.3634	14.67533	406.9414	2.583441	1.312603
Stddev	.57420	16.7390	.58021	15.8945	.010196	.010881
%RSD	3.586265	4.099054	3.953660	3.905856	.3946488	.8289762
#1	16.47844	411.6106	14.75254	408.8889	2.573041	1.305839
#2	16.18480	423.2409	15.21308	421.7724	2.583863	1.306815
#3	15.37014	390.2387	14.06038	390.1628	2.593419	1.325155

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	402.9021	2.568739	15.27507	161.2105	5.132476	5.332713
Stddev	15.6498	.094592	.02549	5.8448	.013465	.194578
%RSD	3.884263	3.682422	.1669001	3.625540	.2623554	3.648757
#1	403.6371	2.644963	15.27944	161.2436	5.120740	5.483477
#2	418.1715	2.598375	15.24768	167.0387	5.129511	5.401600
#3	386.8978	2.462877	15.29811	155.3493	5.147177	5.113064

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCV146 Acquired: 01/10/2025 17:19:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV146 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.066269	5.196222	F 11.01973	5.177535	5.146440	4.894685
Stddev	.019070	.024894	.40872	.013572	.218654	.193929
%RSD	.3764040	.4790794	3.708967	.2621372	4.248639	3.962023
#1	5.045356	5.167724	11.35116	5.164848	5.160373	4.896293
#2	5.070755	5.207217	11.14499	5.175910	5.357793	5.087805
#3	5.082696	5.213726	10.56304	5.191847	4.921153	4.699958

Elem	Li6707
Units	ppm
Avg	5.256291
Stddev	.217510
%RSD	4.138093
#1	5.230919
#2	5.485375
#3	5.052580

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.287	25318.14	1169.329	1530.558	2701.358
Stddev	5.220	291.07	44.285	8.280	8.095
%RSD	.1908956	1.149631	3.787239	.5409978	.2996551
#1	2740.254	25582.71	1139.716	1540.075	2710.704
#2	2730.568	25365.36	1148.031	1525.000	2696.814
#3	2732.039	25006.36	1220.239	1526.601	2696.556

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

Sample Name: CCB146 Acquired: 01/10/2025 17:23:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB146 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000608	.0027300	.0014636	.0004541	.0003652	.0103726
Stddev	.002222	.0024564	.0018270	.0005138	.0041227	.0171588
%RSD	365.4382	89.97834	124.8279	113.1487	1128.882	165.4241
#1	-.000059	.0048274	-.000635	-.000116	-.004354	.0206004
#2	-.003053	.0000276	.002323	.000882	.002183	-.009437
#3	.001288	.0033350	.002702	.000596	.003266	.019955

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003105	-.000101	.0001040	.0105277	.0014712	.0001690
Stddev	.001362	.000078	.0000570	.0664496	.0005188	.0003623
%RSD	43.86562	78.04832	54.76081	631.1912	35.26698	214.3513
#1	-.002457	-.000169	.0001370	-.061523	.0015678	-.000139
#2	-.004670	-.000117	.0000383	.023704	.0009108	.000078
#3	-.002188	-.000015	.0001369	.069402	.0019350	.000568

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003382	.0144567	-.001816	.1026303	-.000229	.0001450
Stddev	.0005932	.0297147	.004530	.0852764	.000088	.0021695
%RSD	175.4042	205.5428	249.3839	83.09093	38.31223	1496.208
#1	.0003456	-.013303	-.006632	.1039648	-.000288	-.001985
#2	.0009276	.045801	-.001177	.1872316	-.000271	.002352
#3	-.000259	.010872	.002360	.0166944	-.000128	.000069

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8386905	.0006385	.0008996	1.544212	.0025546	.0064946
Stddev	.0775928	.0003393	.0007286	.231383	.0010772	.0011990
%RSD	9.251660	53.14173	80.98870	14.98389	42.16664	18.46233
#1	.7858770	.0004231	.0017339	1.805485	.0019227	.0069014
#2	.9277765	.0010296	.0005760	1.461953	.0019427	.0051451
#3	.8024180	.0004627	.0003889	1.365198	.0037983	.0074373

Reviewed By:jaswal
On:1/12/2025 8:54:07 PM
Inst Id :P5

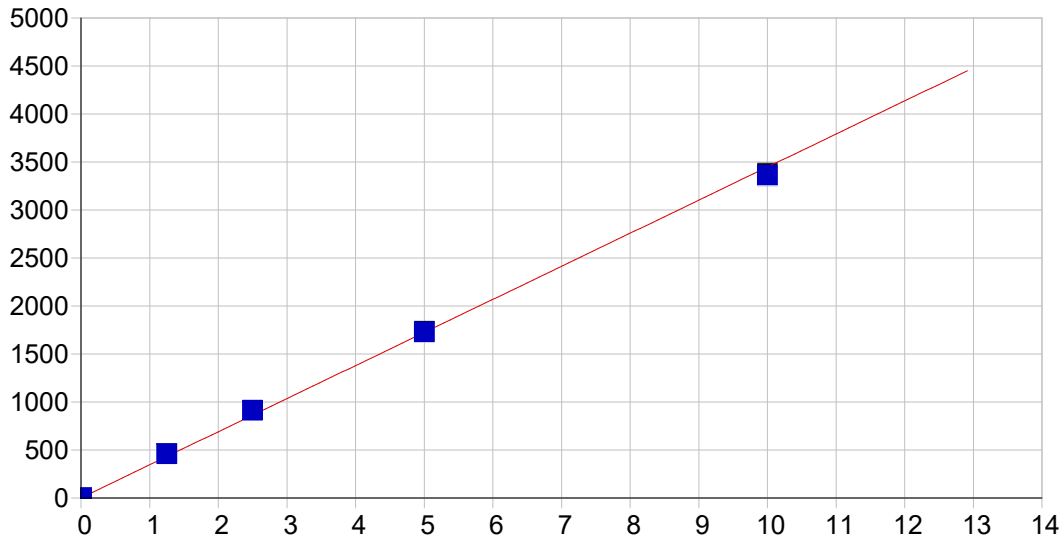
Sample Name: CCB146 Acquired: 01/10/2025 17:23:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v104) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB146 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002209	.0019296	.0026173	-.000642	-.006651	.0002261
Stddev	.0001129	.0021363	.0015734	.000294	.006368	.0001785
%RSD	51.10476	110.7106	60.11613	45.78472	95.75152	78.93954
#1	.0003062	.0027533	.0013122	-.000883	-.000277	.0000939
#2	.0000929	.0035316	.0021753	-.000728	-.013013	.0001553
#3	.0002635	-.000496	.0043645	-.000315	-.006662	.0004292

Elem	Li6707
Units	ppm
Avg	F .0844945
Stddev	.0095859
%RSD	11.34496
#1	.0954894
#2	.0801029
#3	.0778911

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3358.283	30326.08	1328.328	1911.435	3830.945
Stddev	6.718	100.85	10.695	3.636	12.490
%RSD	.2000556	.3325511	.8051322	.1902192	.3260330
#1	3364.819	30299.26	1316.421	1911.869	3838.951
#2	3351.396	30437.63	1331.446	1914.835	3816.553
#3	3358.634	30241.35	1337.118	1907.602	3837.331

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



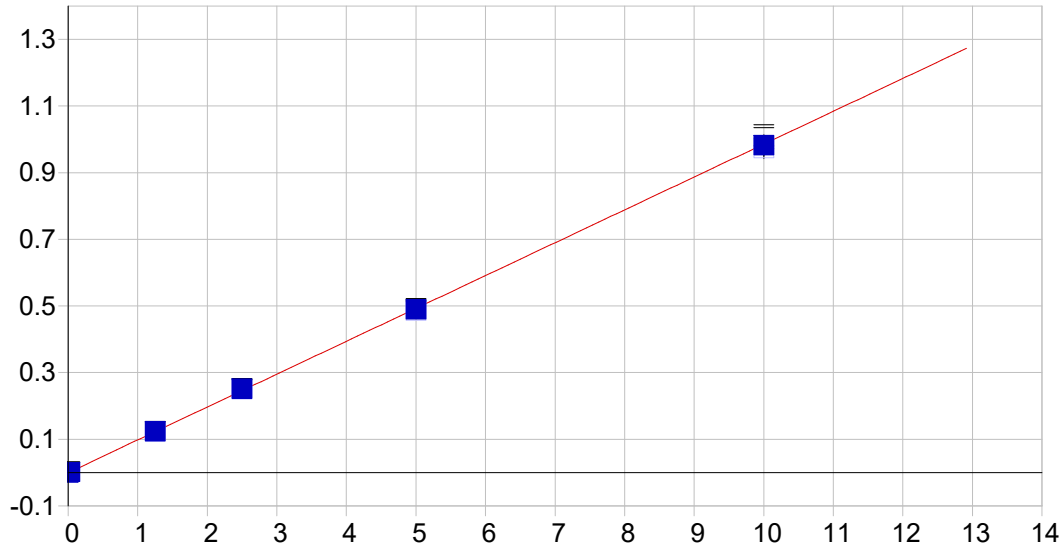
As 189.042 {478}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	1.136599	Re-Slope:	1.000000
A1 (Gain):	344.577715	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999487	Status:	OK.
Std Error of Est:	0.184458		
Predicted MDL:	0.003206		
Predicted MQL:	0.010687		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	1.1361	.402	1
S1	.01000	.01038	.000	3.80	4.7088	.894	1
S2	1.2500	1.3292	.079	6.34	457.48	1.77	1
S3	2.5000	2.6441	.144	5.77	908.89	1.21	1
S4	5.0000	5.0156	.016	.313	1722.7	7.26	1
S5	10.000	9.7606	-.239	-2.39	3351.0	19.8	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



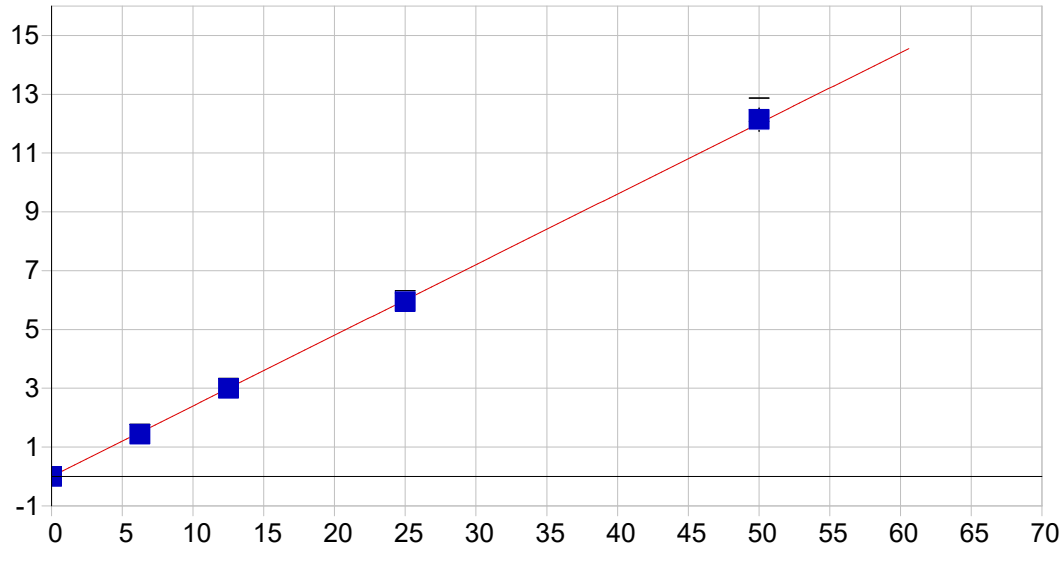
Tl 190.856 {477}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000419	Re-Slope:	1.000000
A1 (Gain):	0.098600	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.001952		
Predicted MQL:	0.006505		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00042	.000	1
S1	.02500	.02654	.002	6.15	.00211	.000	1
S2	1.2500	1.2558	.006	.461	.12234	.000	1
S3	2.5000	2.5560	.056	2.24	.24949	.001	1
S4	5.0000	4.9720	-.028	-.560	.48559	.003	1
S5	10.000	9.9647	-.035	-.353	.97364	.032	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



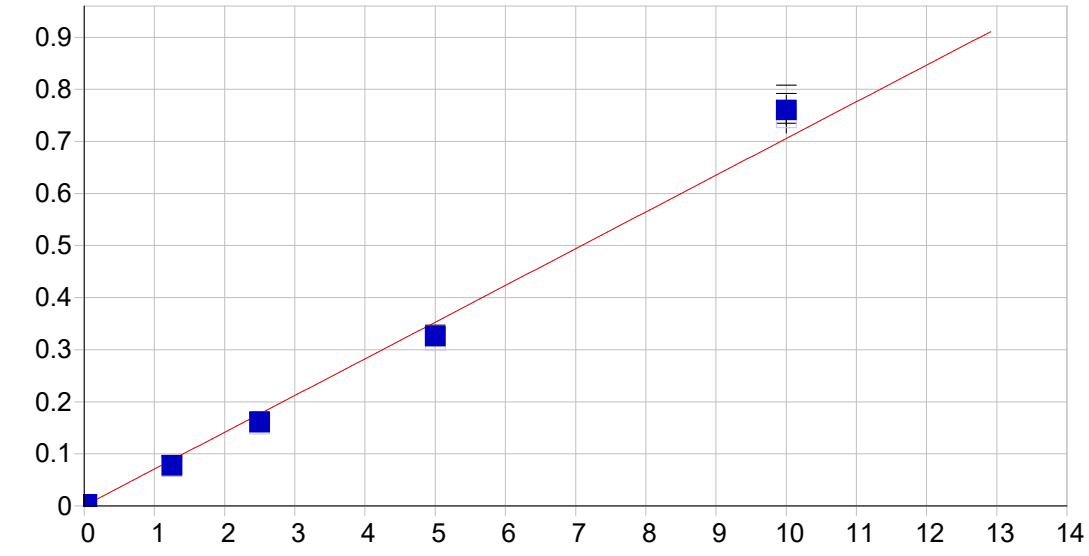
Pb 220.353 {453}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000130	Re-Slope:	1.000000
A1 (Gain):	0.240199	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999884	Status:	OK.
Std Error of Est:	0.000137		
Predicted MDL:	0.002026		
Predicted MQL:	0.006754		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00013	.000	1
S1	.01000	.00773	-.002	-22.7	.00171	.000	1
S2	6.2500	5.9702	-.280	-4.48	1.4319	.000	1
S3	12.500	12.466	-.034	-.272	2.9902	.007	1
S4	25.000	24.758	-.242	-.969	5.9387	.041	1
S5	50.000	50.558	.558	1.12	12.128	.398	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



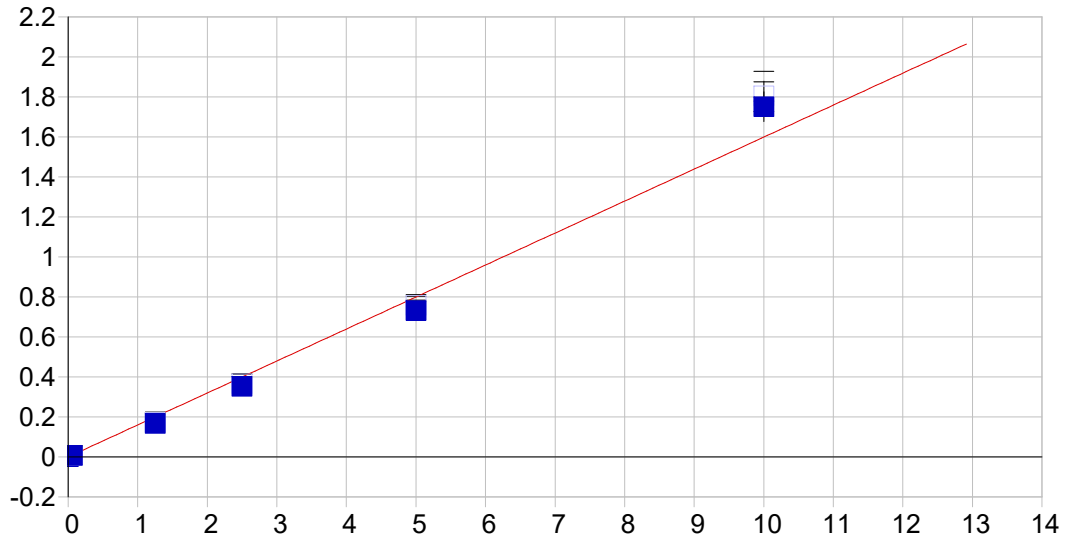
Se 196.090 {472}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000326	Re-Slope:	1.000000
A1 (Gain):	0.070525	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996332	Status:	OK.
Std Error of Est:	0.000186		
Predicted MDL:	0.004674		
Predicted MQL:	0.015579		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00033	.000	1
S1	.03500	.02893	-.006	-17.3	.00236	.000	1
S2	1.2500	1.0901	-.160	-12.8	.07522	.001	1
S3	2.5000	2.2741	-.226	-9.04	.15674	.001	1
S4	5.0000	4.6135	-.387	-7.73	.31776	.002	1
S5	10.000	10.779	.779	7.79	.74461	.029	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



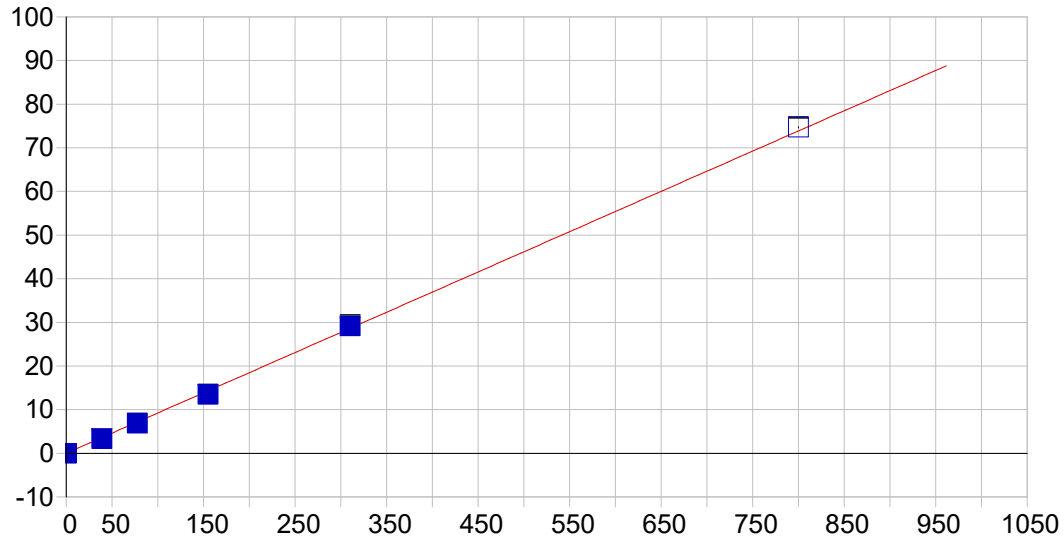
Sb 206.833 {463}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000127	Re-Slope:	1.000000
A1 (Gain):	0.159901	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995026	Status:	OK.
Std Error of Est:	0.000680		
Predicted MDL:	0.002767		
Predicted MQL:	0.009223		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	-.00012	.001	1
S1	.06000	.04537	-.015	-24.4	.00713	.000	1
S2	1.2500	1.0443	-.206	-16.5	.17353	.001	1
S3	2.5000	2.1981	-.302	-12.1	.36471	.001	1
S4	5.0000	4.5705	-.429	-8.59	.75743	.004	1
S5	10.000	10.951	.951	9.51	1.8045	.074	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



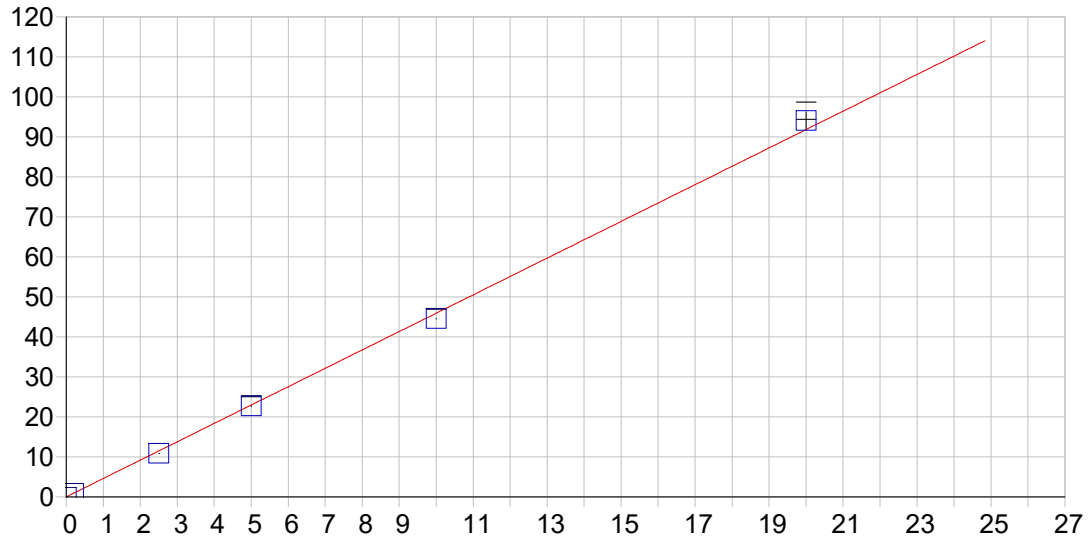
Al 396.152 { 85}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000672	Re-Slope:	1.000000
A1 (Gain):	0.092339	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999637	Status:	OK.
Std Error of Est:	0.001548		
Predicted MDL:	0.028033		
Predicted MQL:	0.093443		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00067	.002	1
S1	.20000	.21011	.010	5.05	.02010	.002	1
S2	38.750	36.118	-2.63	-6.79	3.3397	.005	1
S3	77.500	74.356	-3.14	-4.06	6.8744	.028	1
S4	155.00	146.22	-8.78	-5.66	13.518	.040	1
S5	310.00	315.60	5.60	1.81	29.174	.271	1
S6	800.00	808.96	8.96	1.12	74.699	.129	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



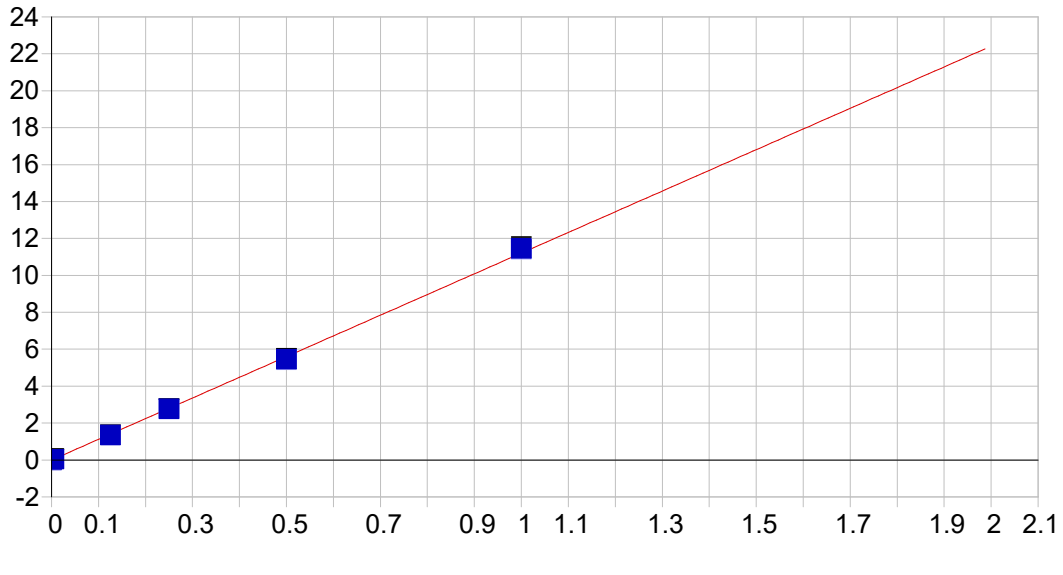
Ba 493.409 { 68}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.012056	Re-Slope:	1.000000
A1 (Gain):	4.591153	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999633	Status:	OK.
Std Error of Est:	0.013226		
Predicted MDL:	0.001048		
Predicted MQL:	0.003493		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.01213	.002	1
S1	.20000	.19861	-.001	-.696	.92389	.007	1
S2	2.5000	2.3724	-.128	-5.11	10.904	.016	1
S3	5.0000	4.9373	-.063	-1.25	22.680	.106	1
S4	10.000	9.7065	-.293	-2.93	44.576	.071	1
S5	20.000	20.485	.485	2.43	94.063	2.15	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



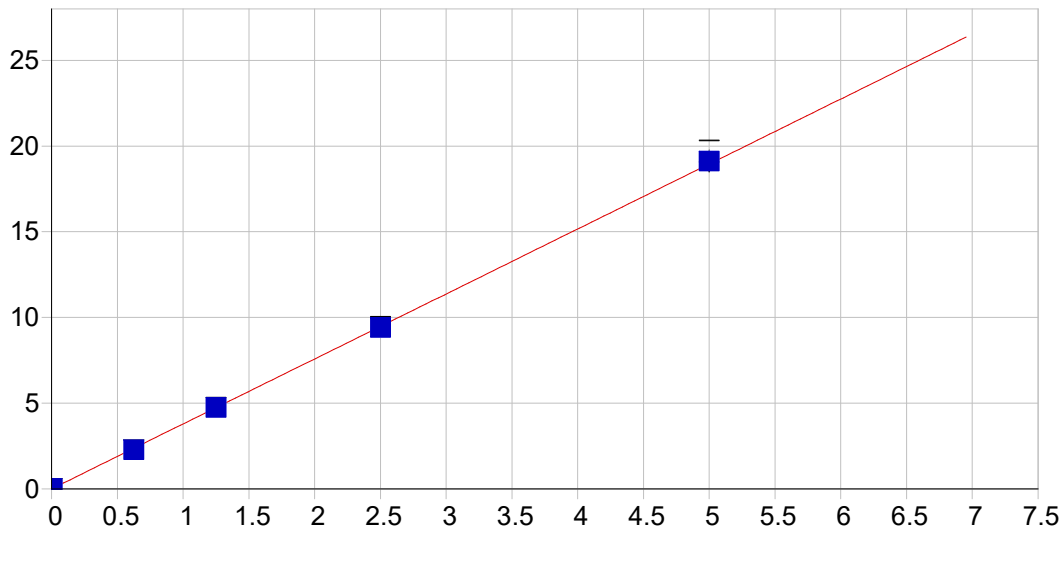
Be 234.861 {144}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003350	Re-Slope:	1.000000
A1 (Gain):	11.207763	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999722	Status:	OK.
Std Error of Est:	0.000987		
Predicted MDL:	0.000154		
Predicted MQL:	0.000514		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00335	.001	1
S1	.00500	.00511	.000	2.30	.05392	.001	1
S2	.12500	.12063	-.004	-3.50	1.3422	.006	1
S3	.25000	.24673	-.003	-1.31	2.7490	.021	1
S4	.50000	.48620	-.014	-2.76	5.4201	.061	1
S5	1.0000	1.0213	.021	2.13	11.392	.109	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



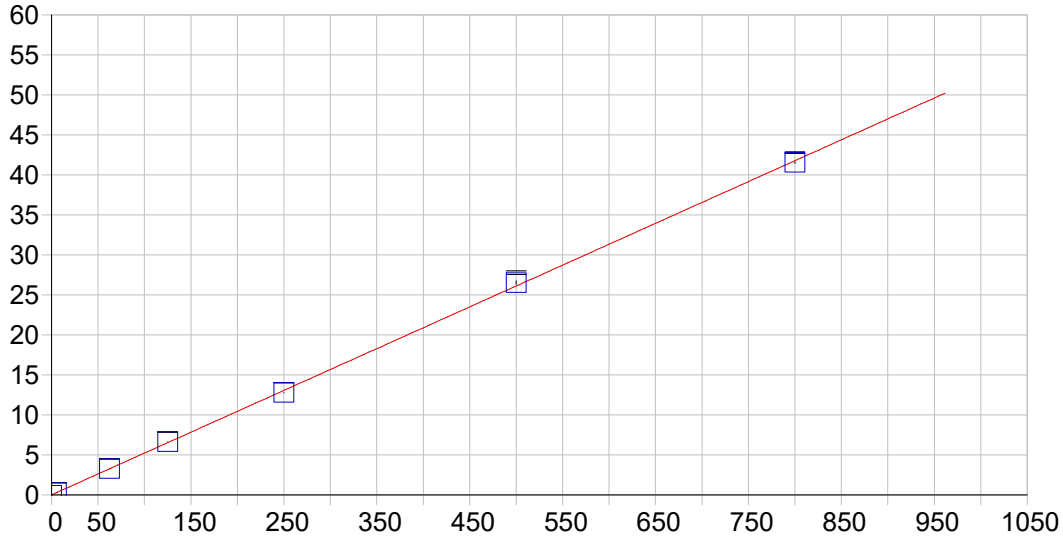
Cd 214.438 {457}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000309	Re-Slope:	1.000000
A1 (Gain):	3.790513	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999926	Status:	OK.
Std Error of Est:	0.000388		
Predicted MDL:	0.000070		
Predicted MQL:	0.000233		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00031	.000	1
S1	.00500	.00462	-.000	-7.58	.01790	.000	1
S2	.62500	.60184	-.023	-3.71	2.2852	.003	1
S3	1.2500	1.2523	.002	.186	4.7545	.011	1
S4	2.5000	2.4798	-.020	-.806	9.4147	.069	1
S5	5.0000	5.0414	.041	.827	19.139	.630	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



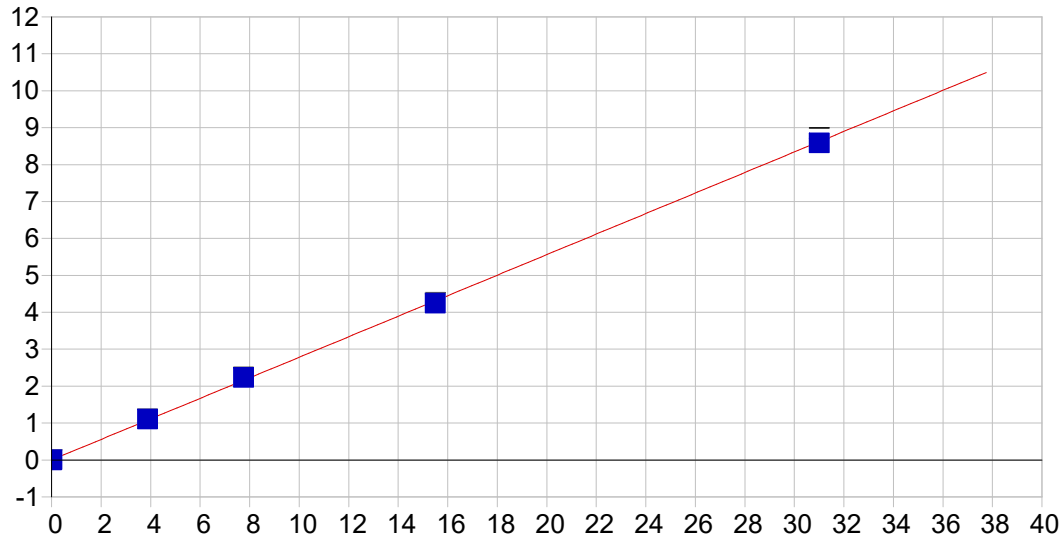
Ca 373.690 { 90}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006168	Re-Slope:	1.000000
A1 (Gain):	0.052215	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999914	Status:	OK.
Std Error of Est:	0.002396		
Predicted MDL:	0.033794		
Predicted MQL:	0.112646		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00017	-.000	.000	.00616	.002	1
S1	5.0000	5.1660	.166	3.32	.27591	.002	1
S2	62.500	62.323	-.177	-.283	3.2604	.007	1
S3	125.00	126.81	1.81	1.45	6.6274	.024	1
S4	250.00	244.64	-5.36	-2.14	12.780	.029	1
S5	500.00	508.04	8.04	1.61	26.533	.208	1
S6	800.00	795.52	-4.48	-.560	41.544	.113	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



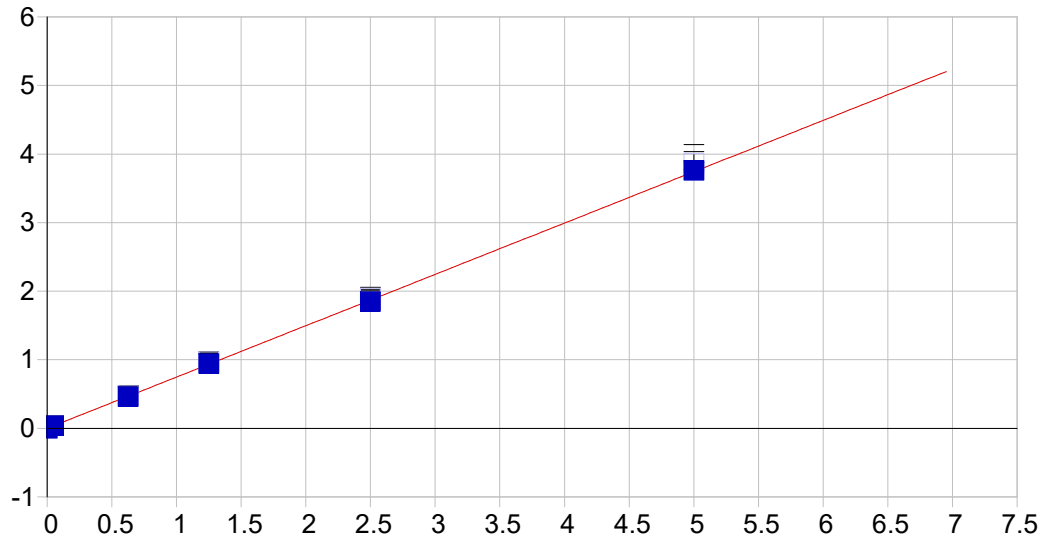
Cr 267.716 {126}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000033	Re-Slope:	1.000000
A1 (Gain):	0.278073	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999859	Status:	OK.
Std Error of Est:	0.000138		
Predicted MDL:	0.000687		
Predicted MQL:	0.002290		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00003	.000	1
S1	.01000	.01012	.000	1.17	.00278	.000	1
S2	3.8750	3.9625	.087	2.26	1.1027	.003	1
S3	7.7500	8.0339	.284	3.66	2.2356	.004	1
S4	15.500	15.269	-.231	-1.49	4.2492	.018	1
S5	31.000	30.859	-.141	-.453	8.5878	.139	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



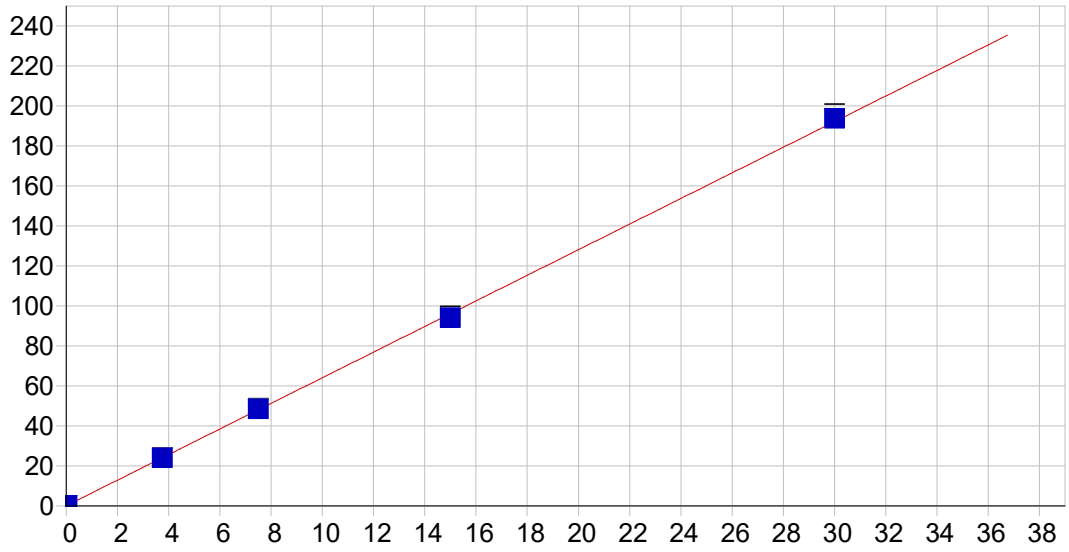
Co 228.616 {448}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000453	Re-Slope:	1.000000
A1 (Gain):	0.748499	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999965	Status:	OK.
Std Error of Est:	0.000171		
Predicted MDL:	0.000350		
Predicted MQL:	0.001167		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00045	.000	1
S1	.05000	.05078	.001	1.56	.03771	.000	1
S2	.62500	.61655	-.008	-1.35	.47377	.000	1
S3	1.2500	1.2600	.010	.803	.96816	.002	1
S4	2.5000	2.4706	-.029	-1.17	1.8998	.013	1
S5	5.0000	5.0270	.027	.540	3.8641	.131	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



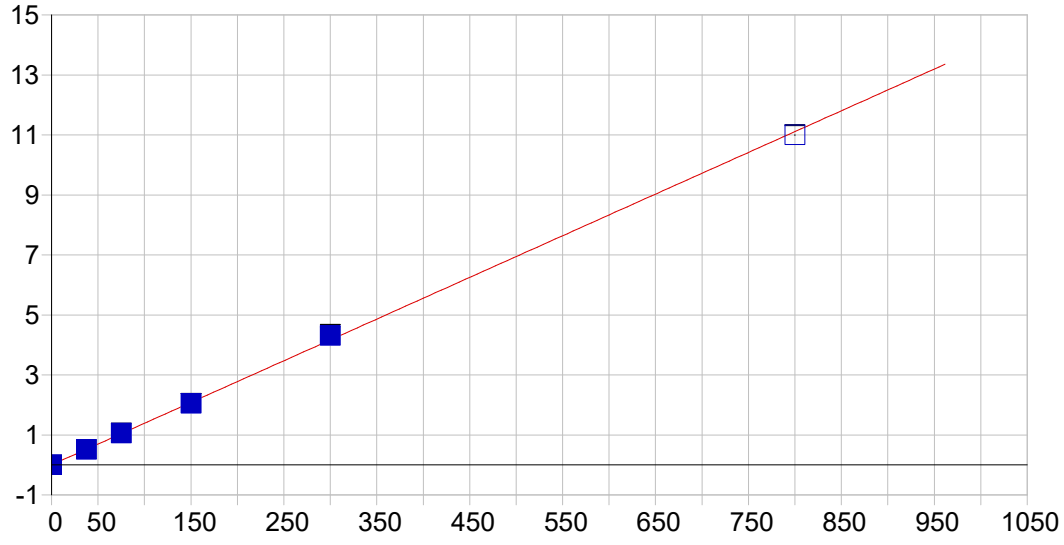
Cu 324.754 {104}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.070907	Re-Slope:	1.000000
A1 (Gain):	6.403572	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.003812		
Predicted MDL:	0.000626		
Predicted MQL:	0.002086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.07088	.006	1
S1	.02500	.02858	.004	14.3	.25369	.003	1
S2	3.7500	3.7318	-.018	-.486	23.965	.157	1
S3	7.5000	7.5686	.069	.915	48.532	.282	1
S4	15.000	14.696	-.304	-2.02	94.169	.737	1
S5	30.000	30.250	.250	.832	193.76	2.25	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



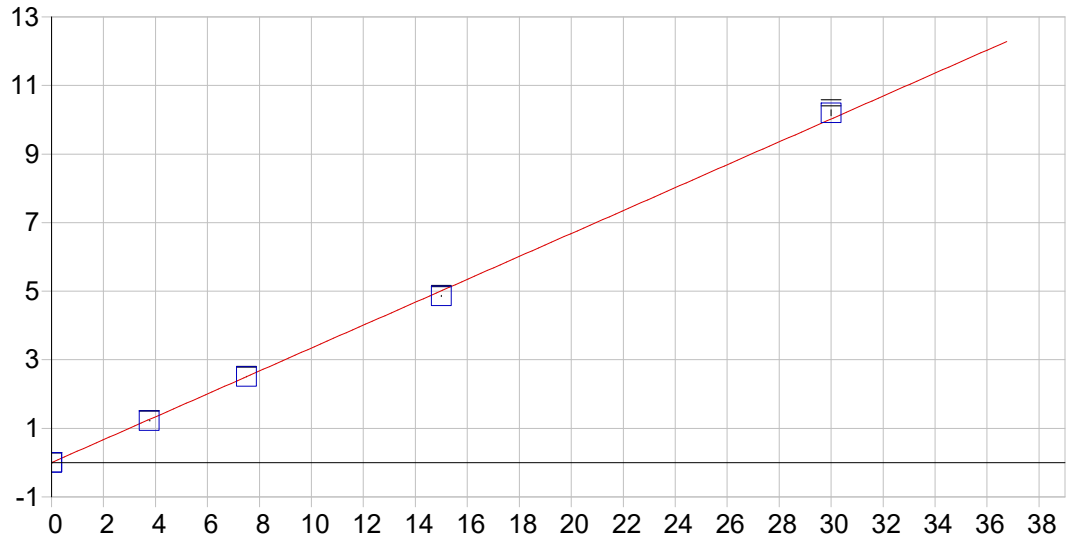
Fe 259.837 {130}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000163	Re-Slope:	1.000000
A1 (Gain):	0.013888	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999819	Status:	OK.
Std Error of Est:	0.000115		
Predicted MDL:	0.041331		
Predicted MQL:	0.137769		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00016	.000	1
S1	.10000	.10954	.010	9.54	.00169	.001	1
S2	37.500	36.818	-.682	-1.82	.51161	.003	1
S3	75.000	75.905	.905	1.21	1.0546	.005	1
S4	150.00	147.77	-2.23	-1.49	2.0529	.003	1
S5	300.00	310.27	10.3	3.42	4.3101	.039	1
S6	800.00	791.73	-8.27	-1.03	10.996	.016	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



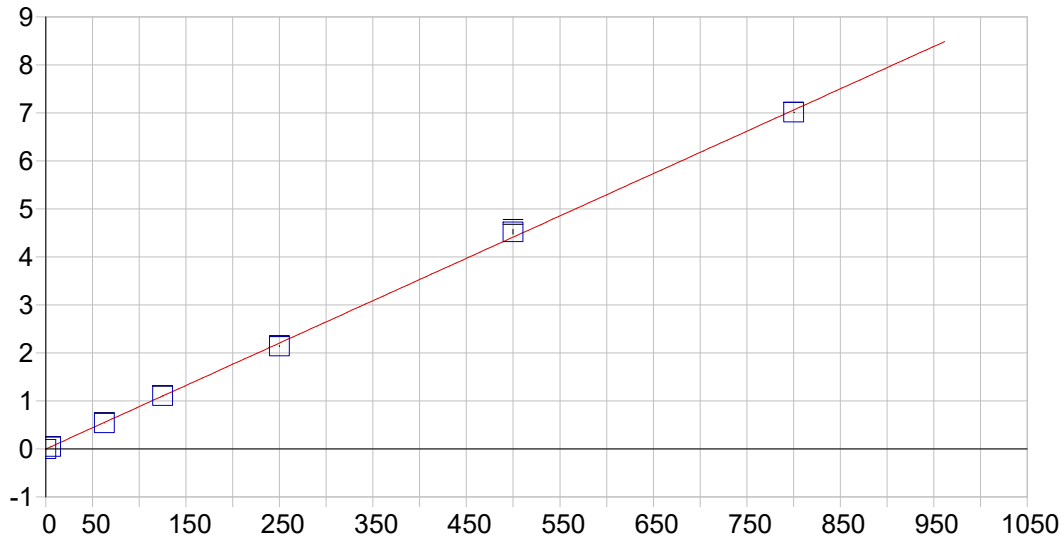
Mn 257.610 {131}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000358	Re-Slope:	1.000000
A1 (Gain):	0.334120	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999775	Status:	OK.
Std Error of Est:	0.000252		
Predicted MDL:	0.001845		
Predicted MQL:	0.006148		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00036	.001	1
S1	.01500	.01388	-.001	-7.44	.00500	.001	1
S2	3.7500	3.6548	-.095	-2.54	1.2215	.003	1
S3	7.5000	7.5155	.016	.207	2.5114	.009	1
S4	15.000	14.551	-.449	-3.00	4.8620	.016	1
S5	30.000	30.530	.530	1.77	10.201	.089	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



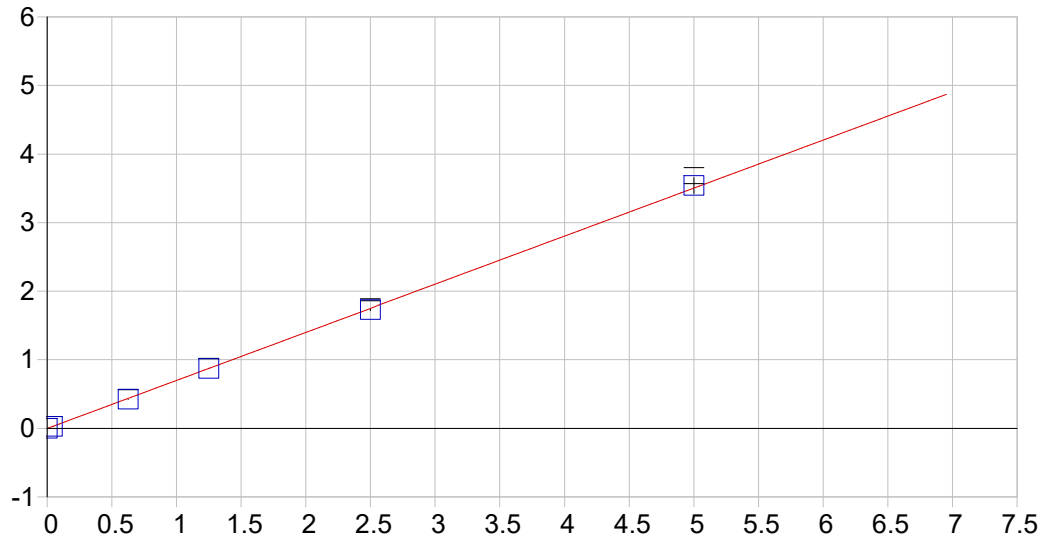
Mg 279.079 {121}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001312	Re-Slope:	1.000000
A1 (Gain):	0.008827	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999835	Status:	OK.
Std Error of Est:	0.000560		
Predicted MDL:	0.088282		
Predicted MQL:	0.294272		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	-.00131	.001	1
S1	5.0000	5.2325	.233	4.65	.04487	.000	1
S2	62.500	61.610	-.890	-1.42	.54250	.002	1
S3	125.00	125.53	.535	.428	1.1067	.003	1
S4	250.00	242.93	-7.07	-2.83	2.1430	.008	1
S5	500.00	512.53	12.5	2.51	4.5227	.048	1
S6	800.00	794.66	-5.34	-.667	7.0129	.002	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



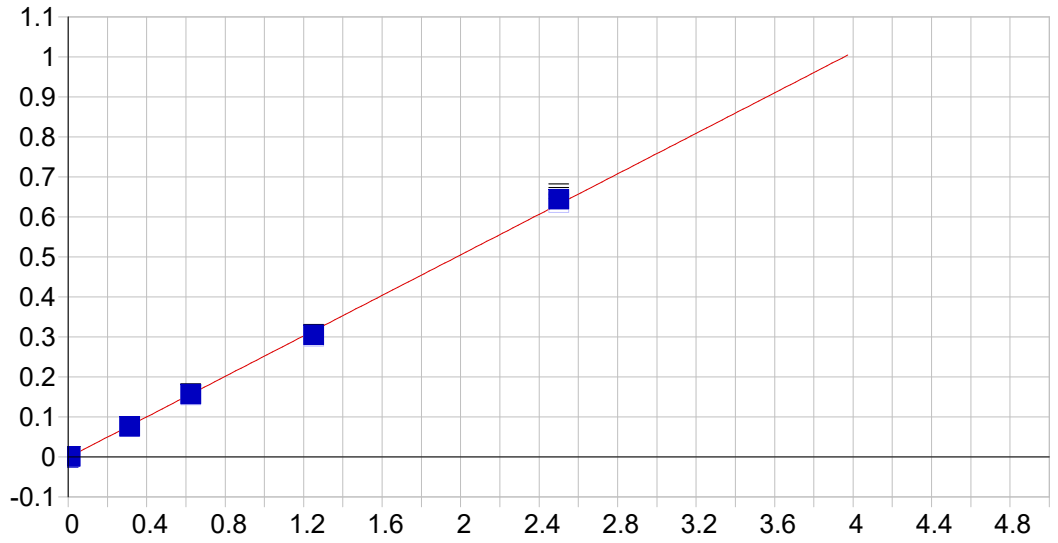
Ni 231.604 {446}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000564	Re-Slope:	1.000000
A1 (Gain):	0.700619	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000240		
Predicted MDL:	0.000539		
Predicted MQL:	0.001796		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00056	.000	1
S1	.04000	.03758	-.002	-6.05	.02577	.001	1
S2	.62500	.60252	-.022	-3.60	.42157	.001	1
S3	1.2500	1.2477	-.002	-.185	.87359	.004	1
S4	2.5000	2.4705	-.030	-1.18	1.7303	.013	1
S5	5.0000	5.0567	.057	1.13	3.5423	.117	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



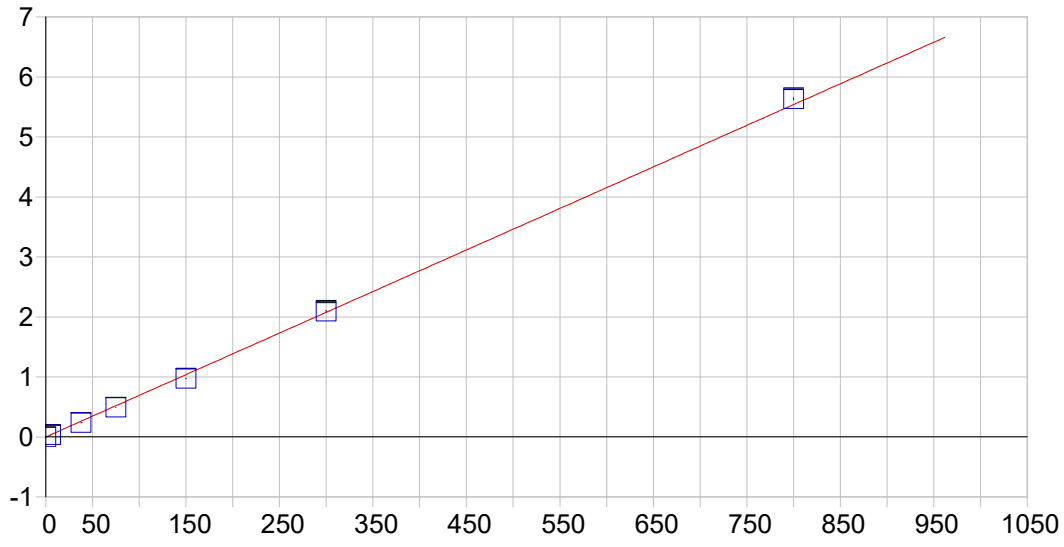
Ag 328.068 {103}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001229	Re-Slope:	1.000000
A1 (Gain):	0.253161	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999725	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	0.001276		
Predicted MQL:	0.004253		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00123	.000	1
S1	.01000	.00918	-.001	-8.20	.00109	.000	1
S2	.31250	.30500	-.007	-2.40	.07485	.000	1
S3	.62500	.62500	-.000	-.000	.15472	.000	1
S4	1.2500	1.2095	-.040	-3.24	.30042	.002	1
S5	2.5000	2.5488	.049	1.95	.63491	.014	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



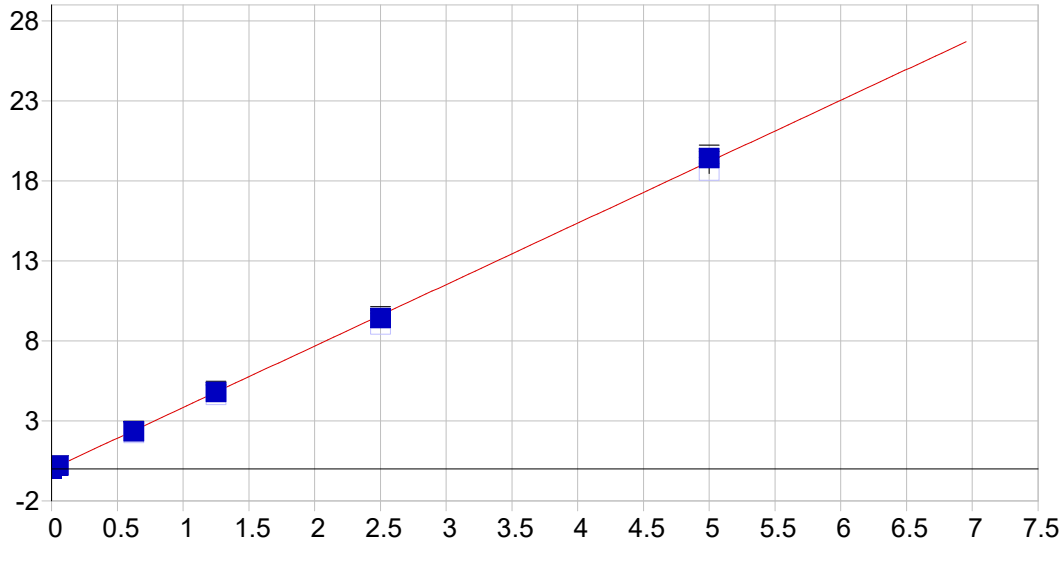
Na 818.326 { 41}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000091	Re-Slope:	1.000000
A1 (Gain):	0.006924	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999505	Status:	OK.
Std Error of Est:	0.000674		
Predicted MDL:	0.725835		
Predicted MQL:	2.419448		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00067	.001	.000	-.00009	.001	1
S1	5.0000	5.2079	.208	4.16	.03597	.006	1
S2	37.500	34.348	-3.15	-8.41	.23772	.002	1
S3	75.000	70.994	-4.01	-5.34	.49145	.004	1
S4	150.00	140.53	-9.47	-6.32	.97287	.004	1
S5	300.00	302.23	2.23	.745	2.0925	.019	1
S6	800.00	814.19	14.2	1.77	5.6371	.014	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



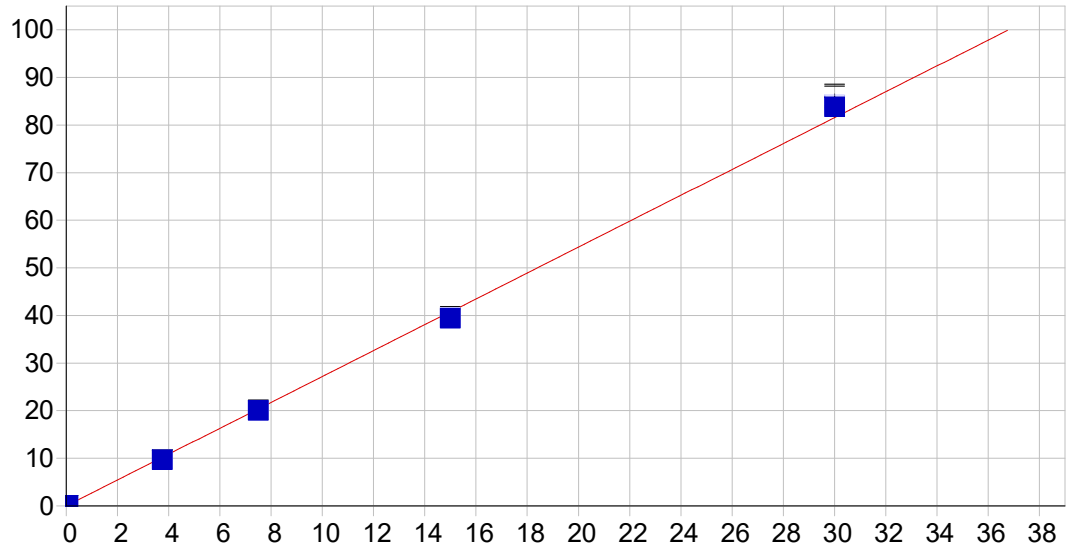
V 292.402 {115}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002066	Re-Slope:	1.000000
A1 (Gain):	3.840611	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999872	Status:	OK.
Std Error of Est:	0.001571		
Predicted MDL:	0.000844		
Predicted MQL:	0.002815		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00207	.004	1
S1	.05000	.05380	.004	7.60	.20403	.006	1
S2	.62500	.61077	-.014	-2.28	2.2475	.009	1
S3	1.2500	1.2527	.003	.217	4.6167	.044	1
S4	2.5000	2.4508	-.049	-1.97	9.0257	.101	1
S5	5.0000	5.0568	.057	1.14	18.650	.196	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



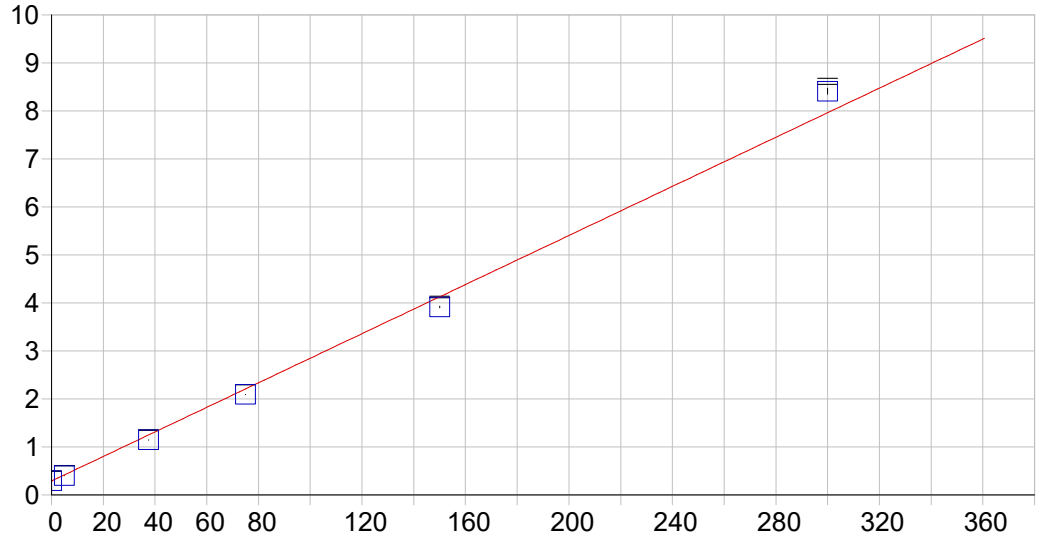
Zn 213.856 {158}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002010	Re-Slope:	1.000000
A1 (Gain):	2.718274	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999534	Status:	OK.
Std Error of Est:	0.005938		
Predicted MDL:	0.000461		
Predicted MQL:	0.001538		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00203	.002	1
S1	.06000	.05873	-.001	-2.12	.16215	.001	1
S2	3.7500	3.5497	-.200	-5.34	9.7008	.009	1
S3	7.5000	7.3628	-.137	-1.83	20.116	.027	1
S4	15.000	14.502	-.498	-3.32	39.623	.174	1
S5	30.000	30.836	.836	2.79	84.223	2.26	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



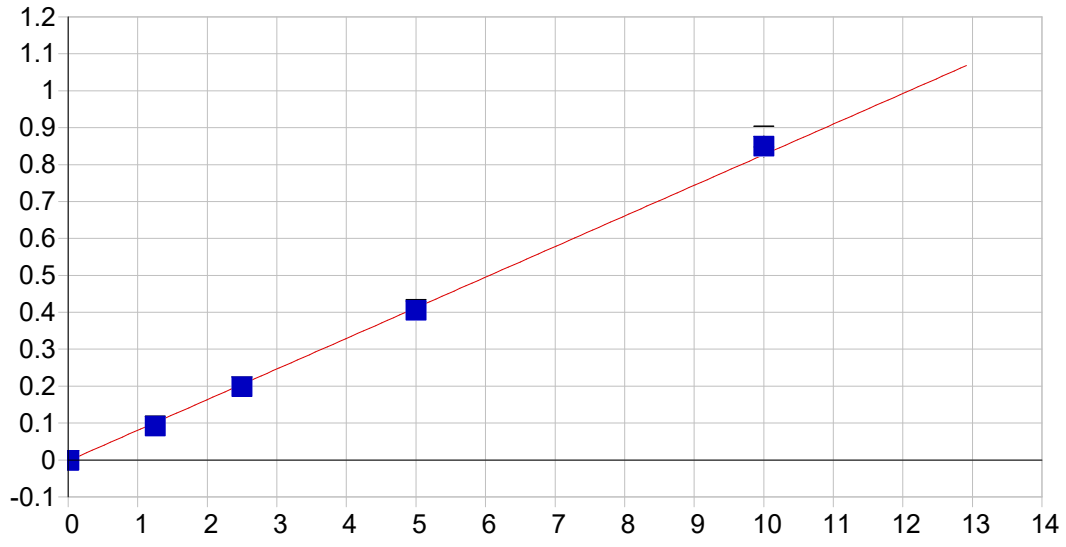
K 769.896 { 44}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.290056	Re-Slope:	1.000000
A1 (Gain):	0.025575	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998015	Status:	OK.
Std Error of Est:	0.003327		
Predicted MDL:	0.169313		
Predicted MQL:	0.564377		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00147	.001	.000	.29009	.002	1
S1	5.0000	4.3571	-.643	-12.9	.40149	.004	1
S2	37.500	33.443	-4.06	-10.8	1.1454	.003	1
S3	75.000	70.468	-4.53	-6.04	2.0923	.003	1
S4	150.00	141.79	-8.21	-5.47	3.9163	.015	1
S5	300.00	317.44	17.4	5.81	8.4086	.062	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



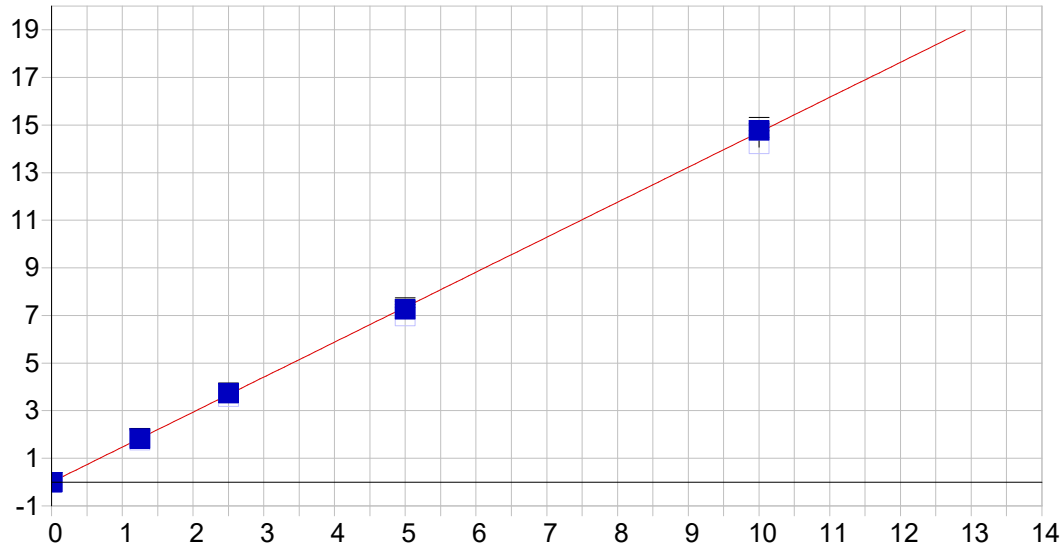
P 177.495 {490}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002331	Re-Slope:	1.000000
A1 (Gain):	0.082903	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999414	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.001794		
Predicted MQL:	0.005981		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00233	.000	1
S1	.01000	.00889	-.001	-11.1	-.00159	.000	1
S2	1.2500	1.1366	-.113	-9.08	.09174	.000	1
S3	2.5000	2.4214	-.079	-3.14	.19811	.000	1
S4	5.0000	4.9166	-.083	-1.67	.40466	.003	1
S5	10.000	10.277	.277	2.77	.84841	.028	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



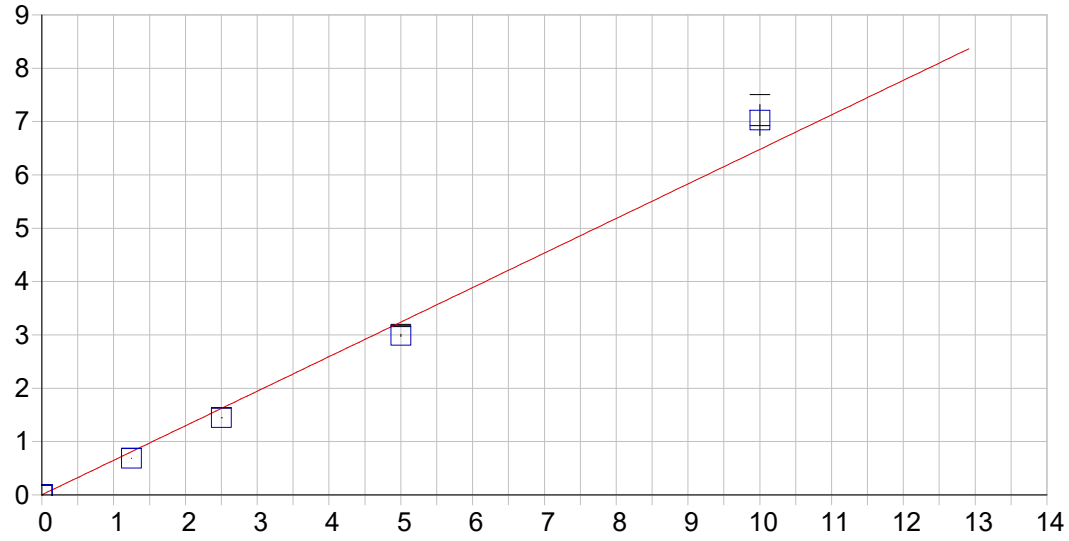
B 249.678 {135}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001080	Re-Slope:	1.000000
A1 (Gain):	1.469665	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999605	Status:	OK.
Std Error of Est:	0.000666		
Predicted MDL:	0.001564		
Predicted MQL:	0.005214		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00110	.001	1
S1	.01000	-.00100	-.011	-110.	-.00047	.001	1
S2	1.2500	1.2396	-.010	-.831	1.7530	.011	1
S3	2.5000	2.5355	.035	1.42	3.5876	.017	1
S4	5.0000	4.9373	-.063	-1.25	6.9779	.065	1
S5	10.000	10.049	.049	.490	14.211	.134	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



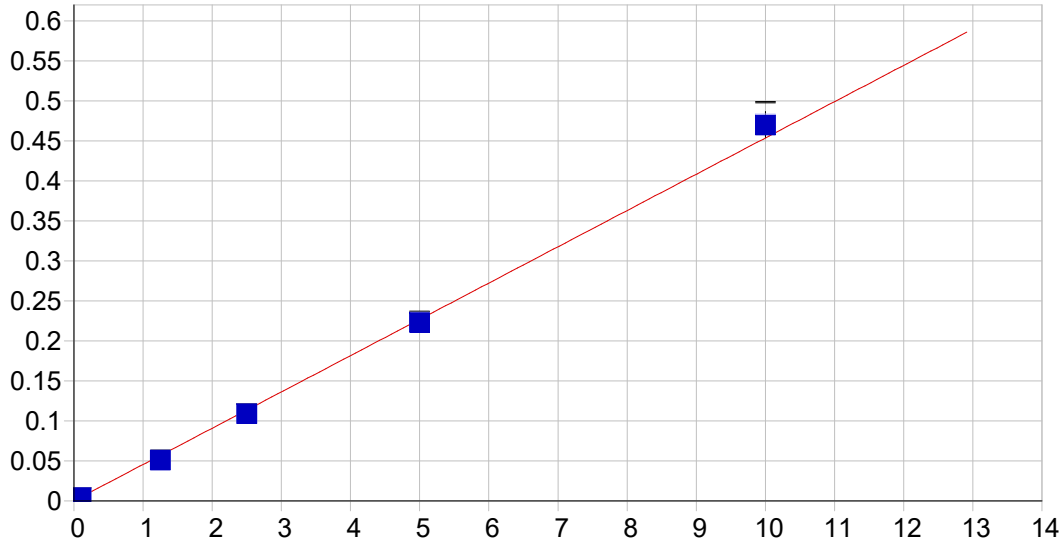
Mo 202.030 {467}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001258	Re-Slope:	1.000000
A1 (Gain):	0.647711	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995745	Status:	OK.
Std Error of Est:	0.001005		
Predicted MDL:	0.000497		
Predicted MQL:	0.001657		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00126	.000	1
S1	.01000	.00823	-.002	-17.7	.00659	.000	1
S2	1.2500	1.0584	-.192	-15.3	.68682	.001	1
S3	2.5000	2.2306	-.269	-10.8	1.4461	.002	1
S4	5.0000	4.6135	-.386	-7.73	2.9895	.020	1
S5	10.000	10.849	.849	8.49	7.0284	.290	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



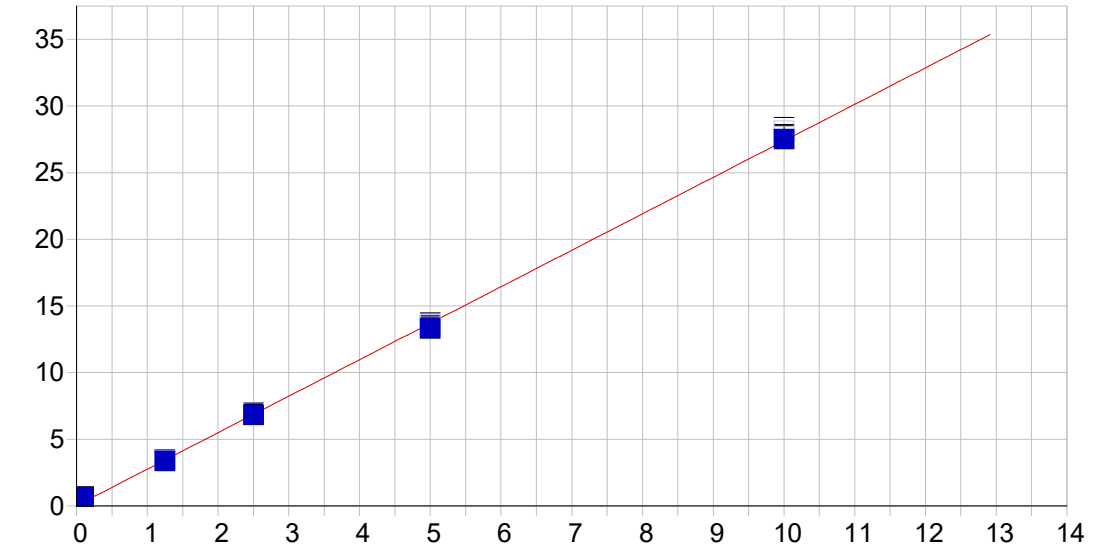
S 182.034 {485}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000181	Re-Slope:	1.000000
A1 (Gain):	0.045351	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999027	Status:	OK.
Std Error of Est:	0.000107		
Predicted MDL:	0.002975		
Predicted MQL:	0.009916		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00018	.000	1
S1	.10000	.08091	-.019	-19.1	.00385	.000	1
S2	1.2500	1.1168	-.133	-10.7	.05101	.000	1
S3	2.5000	2.3909	-.109	-4.36	.10898	.000	1
S4	5.0000	4.9064	-.094	-1.87	.22342	.002	1
S5	10.000	10.355	.355	3.55	.47125	.016	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



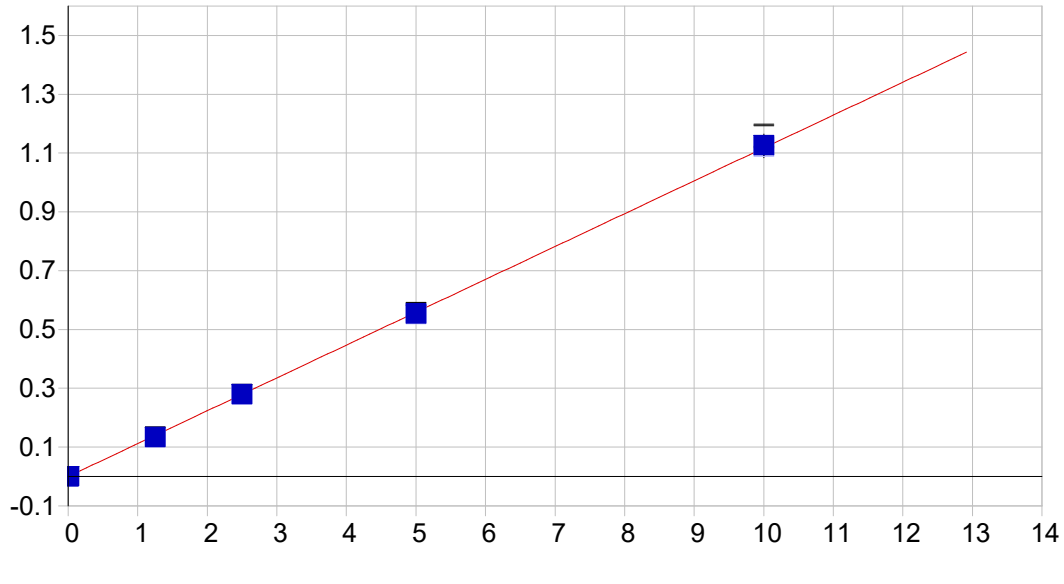
Si 251.611 {134}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.021358	Re-Slope:	1.000000
A1 (Gain):	2.736785	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994935	Status:	OK.
Std Error of Est:	0.015026		
Predicted MDL:	0.000857		
Predicted MQL:	0.002857		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	.02099	.002	1
S1	.10000	.23996	.140	140.	.68194	.004	1
S2	1.2500	1.2225	-.027	-2.20	3.4448	.021	1
S3	2.5000	2.4859	-.014	-.565	6.9800	.040	1
S4	5.0000	4.8548	-.145	-2.90	13.618	.107	1
S5	10.000	10.048	.048	.480	28.142	.257	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



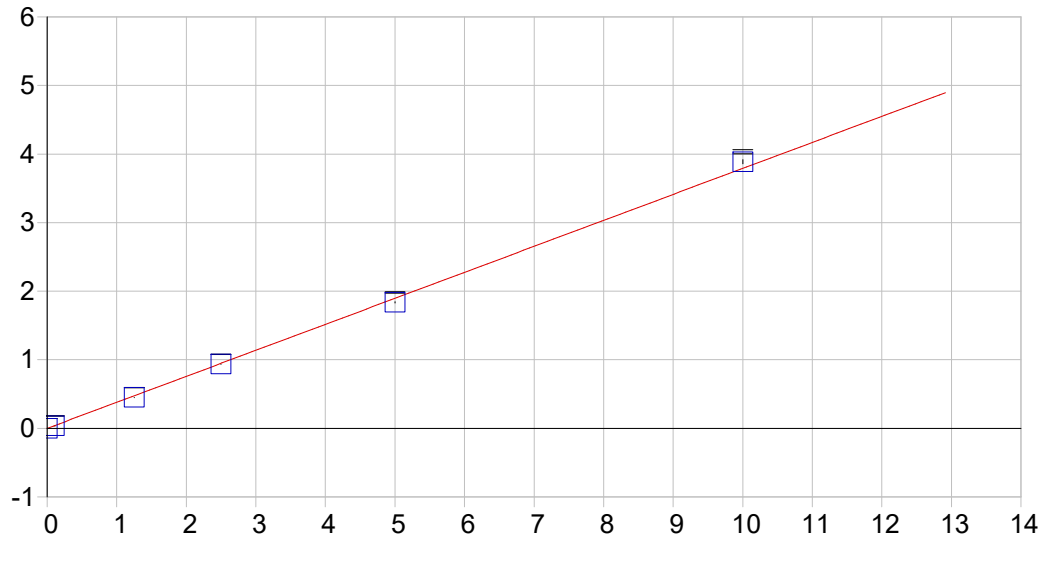
Sn 189.989 {478}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000119	Re-Slope:	1.000000
A1 (Gain):	0.111722	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	0.001077		
Predicted MQL:	0.003589		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00012	.000	1
S1	.00700	.00643	-.001	-8.17	.00080	.000	1
S2	1.2500	1.1995	-.050	-4.04	.13344	.000	1
S3	2.5000	2.5020	.002	.081	.27825	.001	1
S4	5.0000	4.9622	-.038	-.757	.55170	.004	1
S5	10.000	10.087	.087	.868	1.1214	.038	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



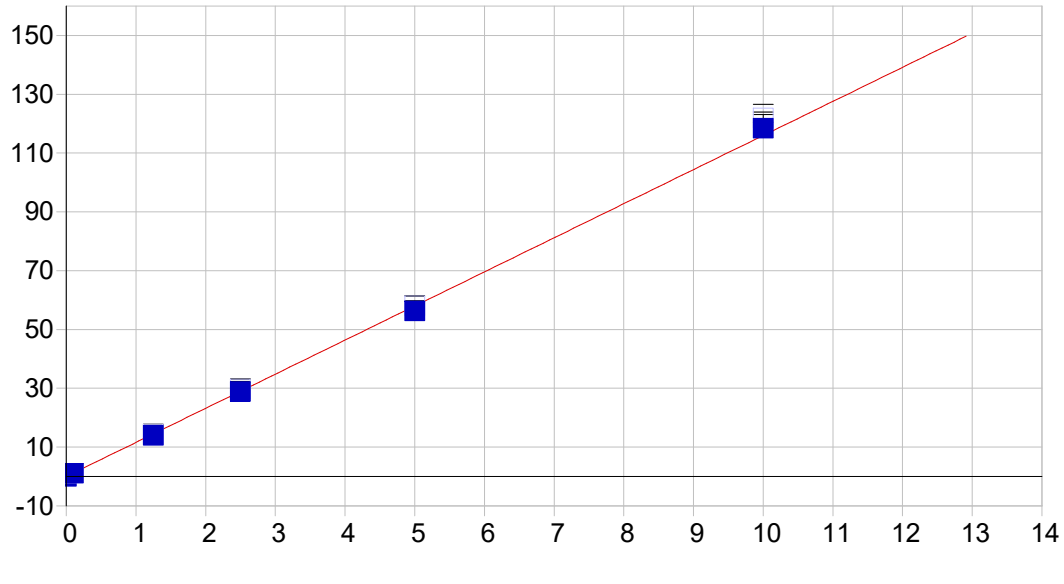
Ti 336.121 {100}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000349	Re-Slope:	1.000000
A1 (Gain):	0.379065	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999598	Status:	OK.
Std Error of Est:	0.000571		
Predicted MDL:	0.003883		
Predicted MQL:	0.012944		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00035	.001	1
S1	.10000	.09575	-.004	-4.25	.03664	.001	1
S2	1.2500	1.1874	-.063	-5.01	.45045	.002	1
S3	2.5000	2.4652	-.035	-1.39	.93483	.004	1
S4	5.0000	4.8452	-.155	-3.10	1.8370	.007	1
S5	10.000	10.256	.256	2.56	3.8882	.029	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



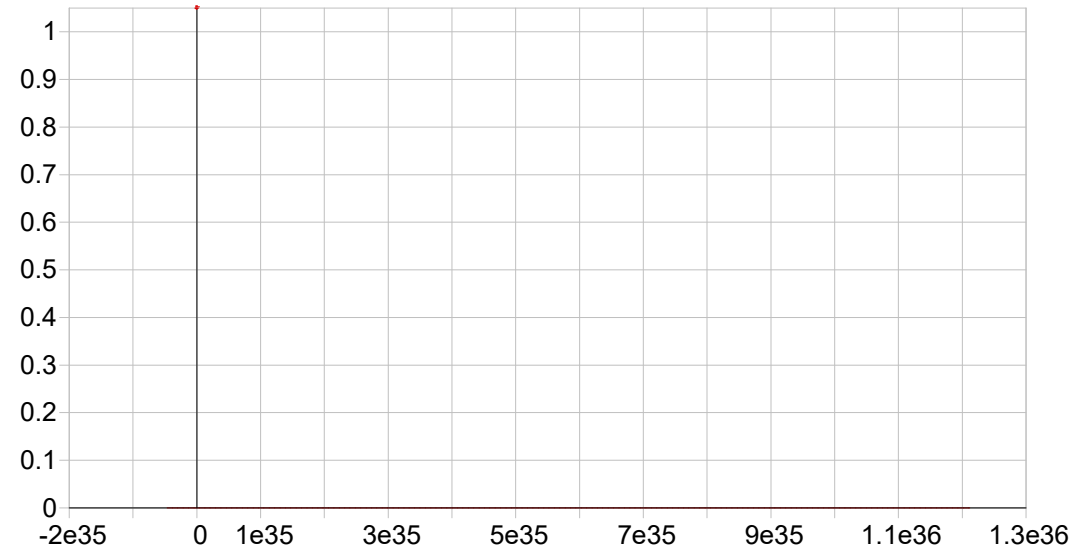
Sr 407.771 { 83}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003400	Re-Slope:	1.000000
A1 (Gain):	11.598016	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999725	Status:	OK.
Std Error of Est:	0.014890		
Predicted MDL:	0.000184		
Predicted MQL:	0.000615		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00328	.001	1
S1	.10000	.09505	-.005	-4.95	1.1002	.010	1
S2	1.2500	1.2005	-.050	-3.96	14.355	.020	1
S3	2.5000	2.4861	-.014	-.555	29.701	.122	1
S4	5.0000	4.8553	-.145	-2.89	58.049	.116	1
S5	10.000	10.213	.213	2.13	121.92	1.33	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

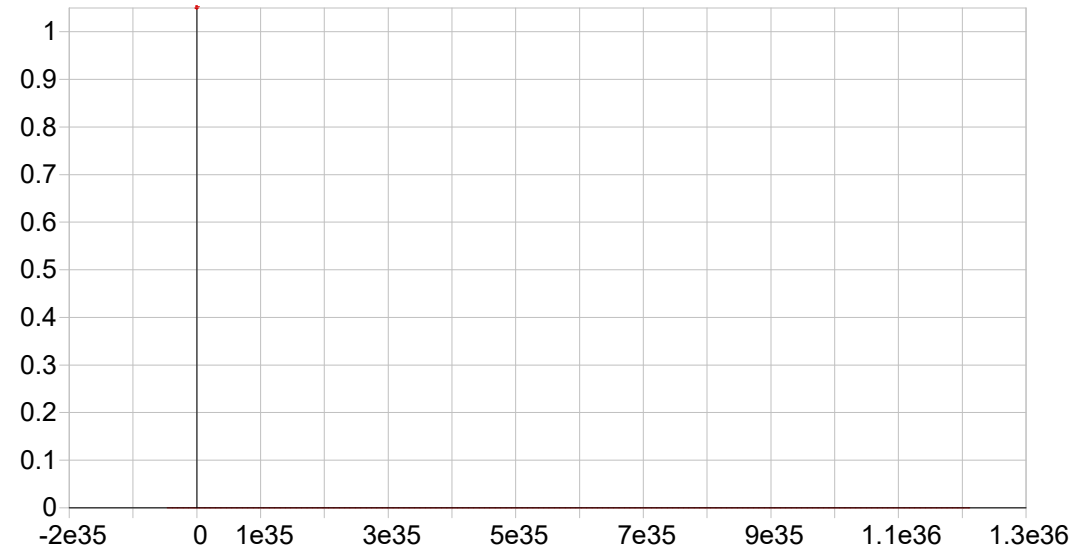


Y 224.306 {450}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 360.073 { 94}*

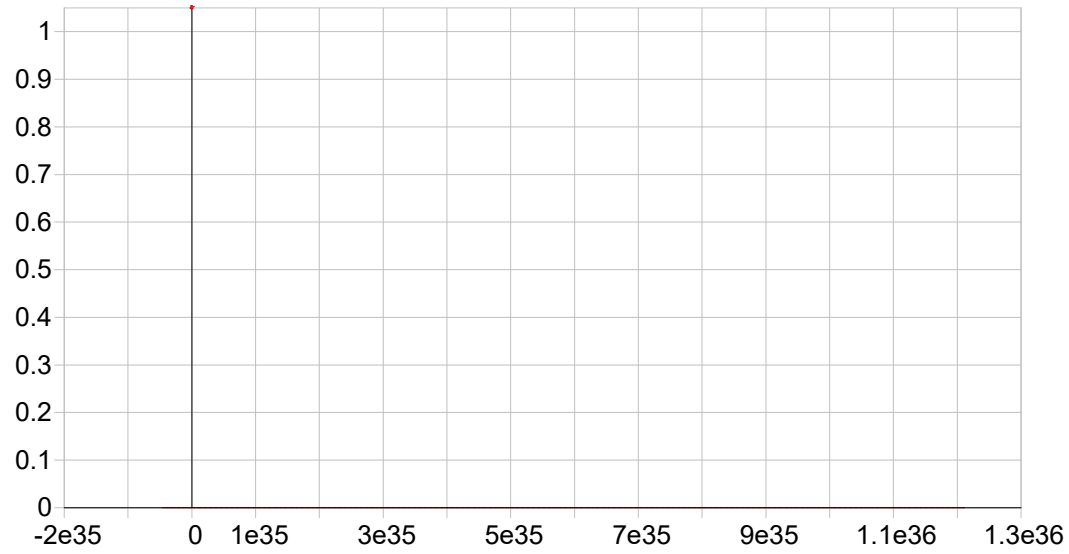
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

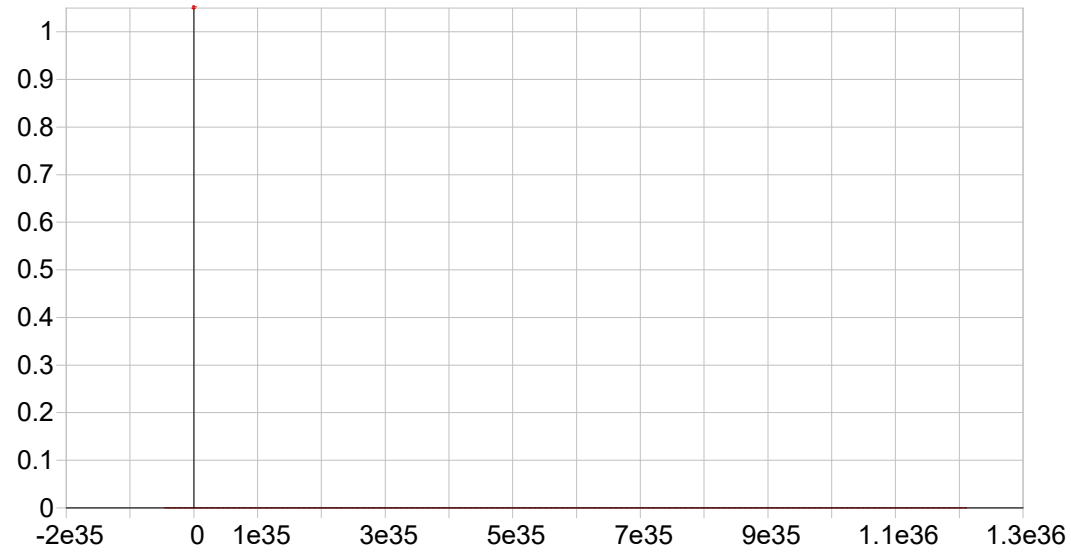


Y 371.030 { 91}*

Date of Fit:	<not fit>		Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):		0.000000		Re-Slope:	1.000000		
A1 (Gain):		0.000000		Y-int:	0.000000		
A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

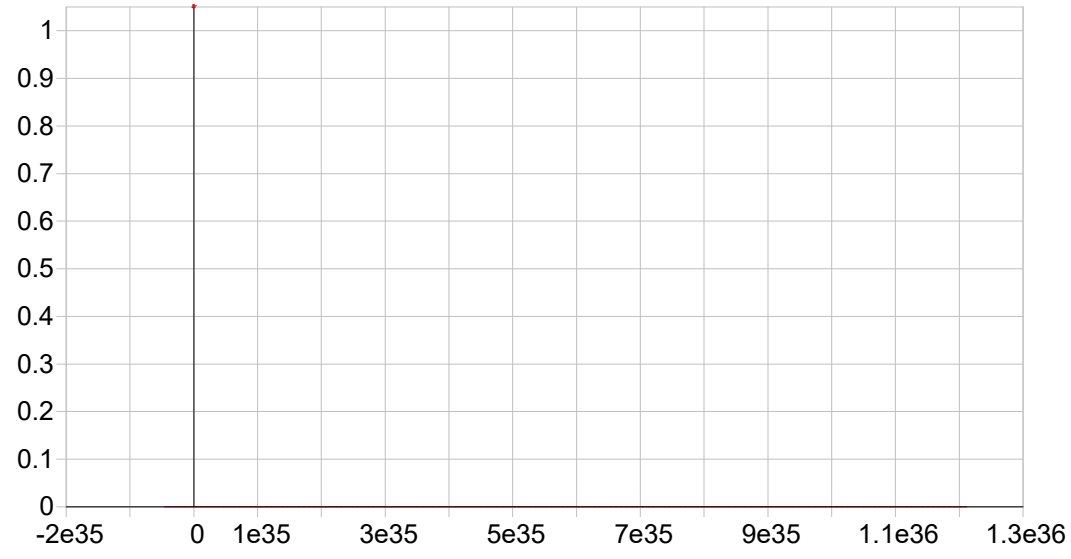
Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5



Y 224.306 {150}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



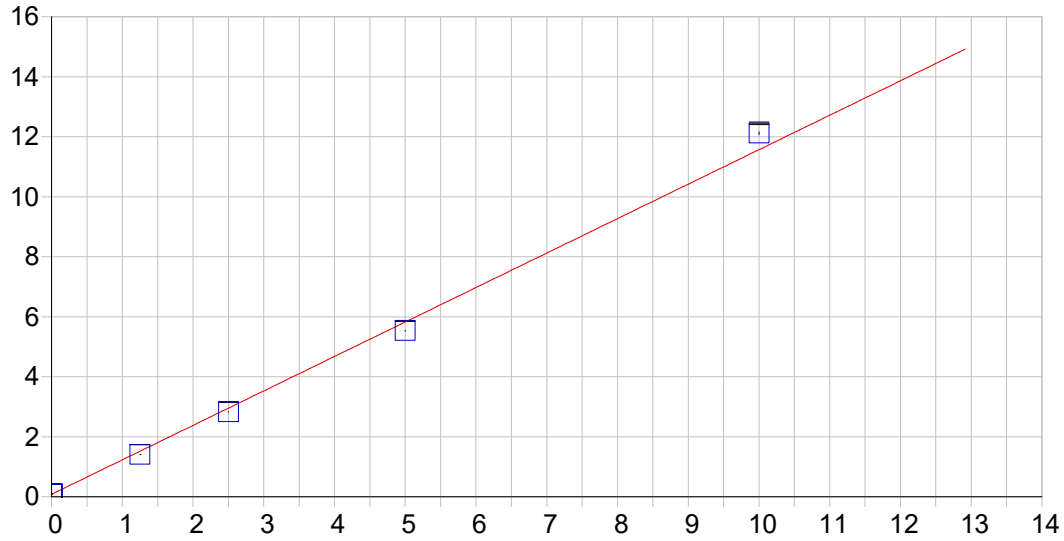
In 230.606 {446}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

A2 (Curvature):	0.000000			
n (Exponent):	1.000000			
Correlation:	0.000000	Status:	Warning	Zero Gain
Std Error of Est:	0.000000			
Predicted MDL:	n/a			
Predicted MQL:	n/a			

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Li 670.784 { 50}

Date of Fit:	01/13/2025 16:32:02	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.083283	Re-Slope:	1.000000
A1 (Gain):	1.148739	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998409	Status:	OK.
Std Error of Est:	0.001332		
Predicted MDL:	0.004037		
Predicted MQL:	0.013458		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.08330	.008	1
S5	10.000	10.474	.474	4.74	12.115	.040	1
S4	5.0000	4.7442	-.256	-5.12	5.5331	.014	1
S3	2.5000	2.3906	-.109	-4.38	2.8294	.012	1
S2	1.2500	1.1548	-.095	-7.62	1.4098	.003	1
S1	.01500	.00145	-.014	-90.3	.08495	.007	1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S0 Acquired: 01/13/2025 15:23:36 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.1361	-.00042	-.00013	.00033	-.00012	.00067	.01213	-.00335
Stddev	.4017	.00024	.00030	.00014	.00062	.00165	.00170	.00140
%RSD	35.354	57.662	230.07	42.889	504.53	244.45	14.033	41.697
#1	1.4358	-.00022	.00017	.00046	.00001	.00160	.01041	-.00477
#2	.67973	-.00036	-.00013	.00018	-.00080	-.00123	.01381	-.00198
#3	1.2928	-.00069	-.00042	.00035	.00041	.00165	.01216	-.00329

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00031	.00616	-.00003	-.00045	.07088	.00016	.00036	-.00131
Stddev	.00008	.00222	.00012	.00025	.00612	.00024	.00068	.00073
%RSD	24.978	35.970	348.70	55.208	8.6361	148.04	189.42	55.870
#1	.00023	.00775	-.00002	-.00073	.06987	-.00004	.00051	-.00104
#2	.00038	.00710	.00008	-.00024	.06533	.00010	-.00038	-.00076
#3	.00032	.00363	-.00015	-.00039	.07745	.00043	.00095	-.00215

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00056	-.00123	-.00009	-.00207	.00203	.29009	-.00233	.00110
Stddev	.00020	.00014	.00084	.00352	.00153	.00154	.00006	.00119
%RSD	35.325	11.750	969.85	169.54	75.447	.53190	2.3734	108.14
#1	-.00055	-.00129	-.00099	-.00460	.00252	.28845	-.00239	-.00001
#2	-.00037	-.00106	.00005	.00194	.00031	.29151	-.00230	.00235
#3	-.00076	-.00133	.00068	-.00357	.00325	.29032	-.00230	.00095

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00126	.00018	.02099	.00012	.00035	-.00328	.08330
Stddev	.00028	.00004	.00167	.00014	.00137	.00130	.00750
%RSD	22.143	24.067	7.9431	119.43	387.40	39.674	9.0072
#1	.00140	.00020	.02172	.00023	-.00030	-.00336	.09186
#2	.00145	.00013	.01908	-.00004	-.00057	-.00454	.07785
#3	.00094	.00022	.02217	.00017	.00192	-.00194	.08020

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S0 Acquired: 01/13/2025 15:23:36 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3259.4	36888.	2452.5	2223.5	4682.7
Stddev	6.1	55.	24.3	4.3	12.8
%RSD	.18577	.14911	.98989	.19378	.27398
#1	3252.9	36938.	2435.1	2224.6	4667.9
#2	3260.5	36897.	2480.2	2218.8	4688.6
#3	3264.8	36829.	2442.1	2227.2	4691.5

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S1 Acquired: 01/13/2025 15:27:41 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.7088	.00211	.00171	.00236	.00713	.02010	.92389	.05392
Stddev	.8943	.00011	.00018	.00029	.00034	.00203	.00714	.00051
%RSD	18.992	5.3334	10.551	12.335	4.7464	10.119	.77277	.93747
#1	5.5485	.00223	.00160	.00258	.00685	.01875	.93141	.05416
#2	3.7684	.00208	.00161	.00247	.00704	.01912	.91720	.05427
#3	4.8093	.00201	.00192	.00203	.00751	.02244	.92307	.05334

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01790	.27591	.00278	.03771	.25369	.00169	.00500	.04487
Stddev	.00005	.00180	.00008	.00010	.00318	.00070	.00097	.00023
%RSD	.29580	.65207	2.9505	.27157	1.2532	41.331	19.472	.50266
#1	.01790	.27782	.00282	.03779	.25009	.00185	.00434	.04462
#2	.01784	.27565	.00269	.03773	.25610	.00092	.00454	.04494
#3	.01795	.27425	.00284	.03759	.25488	.00228	.00611	.04506

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02577	.00109	.03597	.20403	.16215	.40149	-.00159	-.00047
Stddev	.00062	.00030	.00563	.00585	.00064	.00361	.00016	.00141
%RSD	2.4142	27.839	15.649	2.8684	.39525	.90001	9.9037	301.08
#1	.02629	.00075	.03594	.20165	.16143	.40561	-.00161	-.00059
#2	.02594	.00120	.04161	.19974	.16267	.40002	-.00174	-.00181
#3	.02508	.00133	.03035	.21069	.16234	.39884	-.00142	.00100

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00659	.00385	.68194	.00080	.03664	1.1002	.08495
Stddev	.00016	.00005	.00353	.00018	.00115	.0096	.00680
%RSD	2.4217	1.2857	.51754	22.690	3.1298	.87496	8.0088
#1	.00669	.00384	.67792	.00094	.03734	1.1044	.09163
#2	.00641	.00390	.68335	.00088	.03727	1.0892	.07803
#3	.00667	.00380	.68455	.00060	.03532	1.1069	.08520

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S1 Acquired: 01/13/2025 15:27:41 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3152.0	36625.	2410.7	2204.5	4506.0
Stddev	5.9	41.	10.1	9.3	10.1
%RSD	.18714	.11139	.41887	.42302	.22439
#1	3147.2	36583.	2413.6	2210.5	4495.3
#2	3158.6	36665.	2419.1	2209.2	4507.4
#3	3150.2	36628.	2399.5	2193.7	4515.3

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S2 Acquired: 01/13/2025 15:31:42 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	457.48	.12234	1.4319	.07522	.17353	3.3397	10.904	1.3422
Stddev	1.77	.00027	.0002	.00088	.00054	.0053	.016	.0059
%RSD	.38637	.22387	.01389	1.1712	.31292	.15774	.14605	.43694
#1	455.93	.12205	1.4320	.07613	.17364	3.3388	10.902	1.3488
#2	457.10	.12239	1.4321	.07437	.17294	3.3349	10.889	1.3401
#3	459.40	.12259	1.4317	.07517	.17401	3.3453	10.921	1.3376

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.2852	3.2604	1.1027	.47377	23.965	.51161	1.2215	.54250
Stddev	.0027	.0069	.0031	.00048	.157	.00284	.0034	.00182
%RSD	.11695	.21035	.28343	.10107	.65449	.55522	.27561	.33570
#1	2.2851	3.2646	1.1061	.47402	24.146	.51446	1.2230	.54317
#2	2.2826	3.2640	1.0999	.47322	23.864	.51159	1.2238	.54044
#3	2.2880	3.2524	1.1020	.47407	23.885	.50878	1.2176	.54389

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.42157	.07485	.23772	2.2475	9.7008	1.1454	.09174	1.7530
Stddev	.00082	.00026	.00204	.0093	.0095	.0029	.00003	.0107
%RSD	.19349	.35051	.85691	.41355	.09743	.25024	.03378	.61269
#1	.42237	.07513	.23953	2.2569	9.6929	1.1472	.09177	1.7646
#2	.42074	.07461	.23551	2.2471	9.7113	1.1468	.09171	1.7435
#3	.42161	.07481	.23812	2.2383	9.6983	1.1421	.09174	1.7510

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.68682	.05101	3.4448	.13344	.45045	14.355	1.4098
Stddev	.00118	.00008	.0211	.00007	.00222	.020	.0029
%RSD	.17116	.15369	.61316	.05600	.49256	.13769	.20566
#1	.68697	.05099	3.4674	.13342	.45140	14.362	1.4124
#2	.68557	.05095	3.4256	.13337	.44791	14.332	1.4067
#3	.68791	.05110	3.4414	.13352	.45203	14.370	1.4103

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S2 Acquired: 01/13/2025 15:31:42 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2939.6	35161.	2402.0	2075.1	4023.1
Stddev	5.6	51.	14.3	2.9	3.8
%RSD	.19124	.14433	.59584	.14035	.09508
#1	2935.4	35107.	2385.5	2073.5	4019.0
#2	2946.0	35167.	2409.3	2073.3	4026.6
#3	2937.5	35208.	2411.2	2078.4	4023.6

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S3 Acquired: 01/13/2025 15:35:28 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	908.89	.24949	2.9902	.15674	.36471	6.8744	22.680	2.7490
Stddev	1.21	.00076	.0068	.00123	.00102	.0282	.106	.0207
%RSD	.13317	.30612	.22840	.78535	.28050	.41068	.46616	.75435
#1	908.06	.24865	2.9826	.15576	.36366	6.8426	22.558	2.7728
#2	910.28	.24967	2.9924	.15812	.36571	6.8967	22.744	2.7400
#3	908.33	.25015	2.9957	.15633	.36477	6.8838	22.739	2.7343

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.7545	6.6274	2.2356	.96816	48.532	1.0546	2.5114	1.1067
Stddev	.0108	.0242	.0039	.00225	.282	.0048	.0086	.0031
%RSD	.22774	.36579	.17270	.23218	.58098	.45197	.34098	.27621
#1	4.7448	6.5995	2.2312	.96576	48.843	1.0499	2.5016	1.1058
#2	4.7526	6.6422	2.2384	.96851	48.458	1.0595	2.5165	1.1102
#3	4.7662	6.6407	2.2373	.97021	48.294	1.0543	2.5163	1.1043

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.87359	.15472	.49145	4.6167	20.116	2.0923	.19811	3.5876
Stddev	.00355	.00046	.00445	.0442	.027	.0030	.00043	.0173
%RSD	.40670	.29443	.90449	.95844	.13266	.14182	.21511	.48128
#1	.86998	.15421	.49355	4.6650	20.129	2.0930	.19777	3.6061
#2	.87372	.15487	.49445	4.6070	20.085	2.0948	.19797	3.5848
#3	.87708	.15508	.48634	4.5782	20.134	2.0890	.19859	3.5720

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.4461	.10898	6.9800	.27825	.93483	29.701	2.8294
Stddev	.0024	.00031	.0398	.00057	.00392	.122	.0120
%RSD	.16578	.28550	.56980	.20542	.41932	.40985	.42483
#1	1.4439	.10876	7.0238	.27773	.93273	29.566	2.8159
#2	1.4486	.10884	6.9700	.27816	.93935	29.802	2.8390
#3	1.4456	.10933	6.9462	.27886	.93240	29.735	2.8333

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S3 Acquired: 01/13/2025 15:35:28 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2739.8	33897.	2329.9	1975.7	3765.3
Stddev	1.0	44.	19.7	4.5	12.2
%RSD	.03622	.12836	.84355	.22839	.32495
#1	2739.7	33891.	2308.7	1971.9	3771.9
#2	2740.9	33857.	2333.5	1980.7	3772.9
#3	2738.9	33943.	2347.5	1974.6	3751.2

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S4 Acquired: 01/13/2025 15:39:12 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1722.7	.48559	5.9387	.31776	.75743	13.518	44.576	5.4201
Stddev	7.3	.00305	.0415	.00232	.00358	.040	.071	.0606
%RSD	.42166	.62780	.69876	.72941	.47221	.29722	.15845	1.1177
#1	1730.8	.48909	5.9852	.32043	.76156	13.478	44.502	5.3797
#2	1716.8	.48418	5.9258	.31631	.75557	13.519	44.583	5.3910
#3	1720.5	.48350	5.9052	.31653	.75517	13.558	44.643	5.4898

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.4147	12.780	4.2492	1.8998	94.169	2.0529	4.8620	2.1430
Stddev	.0690	.029	.0177	.0135	.737	.0031	.0162	.0084
%RSD	.73289	.22532	.41621	.70846	.78282	.14870	.33334	.39355
#1	9.4907	12.765	4.2677	1.9145	93.885	2.0528	4.8670	2.1377
#2	9.3976	12.762	4.2324	1.8966	93.616	2.0499	4.8439	2.1385
#3	9.3559	12.813	4.2476	1.8882	95.006	2.0560	4.8752	2.1527

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.7303	.30042	.97287	9.0257	39.623	3.9163	.40466	6.9779
Stddev	.0133	.00156	.00445	.1007	.174	.0151	.00285	.0650
%RSD	.76791	.51843	.45785	1.1156	.43805	.38644	.70459	.93106
#1	1.7450	.30204	.97795	8.9538	39.571	3.9055	.40795	6.9401
#2	1.7267	.29894	.96962	8.9824	39.481	3.9098	.40318	6.9407
#3	1.7192	.30029	.97104	9.1407	39.816	3.9336	.40286	7.0529

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.9895	.22342	13.618	.55170	1.8370	58.049	5.5331
Stddev	.0202	.00153	.107	.00432	.0073	.116	.0141
%RSD	.67472	.68467	.78564	.78230	.40013	.19915	.25463
#1	3.0125	.22506	13.555	.55651	1.8311	57.968	5.5233
#2	2.9810	.22316	13.558	.55045	1.8347	57.996	5.5268
#3	2.9749	.22204	13.742	.54815	1.8452	58.181	5.5493

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S4 Acquired: 01/13/2025 15:39:12 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2473.9	33050.	2245.2	1869.5	3518.5
Stddev	4.7	124.	14.0	3.4	12.6
%RSD	.19108	.37555	.62309	.18289	.35916
#1	2469.4	32908.	2252.4	1869.9	3508.1
#2	2473.5	33133.	2254.0	1872.6	3514.8
#3	2478.8	33110.	2229.1	1865.8	3532.5

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S5 Acquired: 01/13/2025 15:42:56 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3351.0	.97364	12.128	.74461	1.8045	29.174	94.063	11.392
Stddev	19.8	.03199	.398	.02871	.0742	.271	2.152	.109
%RSD	.59066	3.2861	3.2814	3.8560	4.1097	.92959	2.2883	.95529
#1	3373.8	1.0106	12.587	.77747	1.8896	29.330	92.523	11.367
#2	3338.5	.95578	11.908	.72434	1.7540	29.331	96.522	11.511
#3	3340.7	.95457	11.889	.73203	1.7697	28.861	93.142	11.298

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	19.139	26.533	8.5878	3.8641	193.76	4.3101	10.201	4.5227
Stddev	.630	.208	.1387	.1307	2.25	.0393	.089	.0480
%RSD	3.2904	.78476	1.6149	3.3825	1.1626	.91187	.87077	1.0610
#1	19.866	26.746	8.5326	4.0150	195.09	4.3406	10.257	4.5634
#2	18.783	26.524	8.7456	3.7915	195.02	4.3240	10.247	4.5349
#3	18.768	26.330	8.4853	3.7859	191.16	4.2657	10.099	4.4698

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.5423	.63491	2.0925	18.650	84.223	8.4086	.84841	14.211
Stddev	.1173	.01388	.0189	.196	2.265	.0619	.02837	.134
%RSD	3.3121	2.1856	.90379	1.0509	2.6888	.73643	3.3436	.94261
#1	3.6778	.63072	2.1048	18.586	83.319	8.3964	.88116	14.213
#2	3.4753	.65040	2.1020	18.869	86.800	8.4758	.83267	14.344
#3	3.4738	.62362	2.0707	18.493	82.550	8.3538	.83142	14.076

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.0284	.47125	28.142	1.1214	3.8882	121.92	12.115
Stddev	.2901	.01559	.257	.0376	.0292	1.33	.040
%RSD	4.1280	3.3087	.91430	3.3528	.75093	1.0930	.33310
#1	7.3630	.48924	28.175	1.1649	3.9142	122.01	12.162
#2	6.8465	.46282	28.381	1.0995	3.8938	123.21	12.095
#3	6.8756	.46168	27.870	1.0999	3.8566	120.55	12.089

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S5 Acquired: 01/13/2025 15:42:56 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2009.3	31031.	2123.8	1643.8	3240.6
Stddev	68.8	615.	13.0	38.9	86.8
%RSD	3.4242	1.9816	.61331	2.3675	2.6776
#1	1930.0	31262.	2121.2	1659.2	3140.4
#2	2053.7	30333.	2112.2	1599.5	3289.6
#3	2044.1	31496.	2137.9	1672.6	3291.7

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: S6 Acquired: 01/13/2025 15:47:18 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	74.699	41.544	10.996	7.0129	5.6371
Stddev	.129	.113	.016	.0020	.0140
%RSD	.17318	.27310	.14404	.02866	.24746
#1	74.676	41.496	11.006	7.0107	5.6276
#2	74.838	41.462	11.004	7.0145	5.6531
#3	74.583	41.674	10.978	7.0137	5.6305

Int. Std.	Y_3710
Units	Cts/S
Avg	2079.8
Stddev	3.0
%RSD	.14291
#1	2077.4
#2	2079.0
#3	2083.1

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICV058 Acquired: 01/13/2025 16:02:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICV058 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9022310	1.072271	1.010899	1.029362	.9736101	2.491561
Stddev	.0006997	.004129	.003249	.005133	.0045976	.040190
%RSD	.0775523	.3850341	.3214321	.4986373	.4722190	1.613030
#1	.9015895	1.074757	1.014457	1.033386	.9740160	2.499852
#2	.9021264	1.067505	1.008089	1.031119	.9779913	2.447873
#3	.9029771	1.074550	1.010150	1.023581	.9688231	2.526959

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5249178	.5260097	.5005726	10.74840	.5649748	.5189537
Stddev	.0036751	.0055106	.0005799	.04454	.0028456	.0003538
%RSD	.7001194	1.047624	.1158436	.4143594	.5036711	.0681773
#1	.5282514	.5294296	.5011868	10.71102	.5642305	.5192753
#2	.5209769	.5289467	.5000346	10.79768	.5625753	.5190111
#3	.5255250	.5196527	.5004964	10.73651	.5681186	.5185747

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5550733	10.49799	.5301417	6.150611	.5123869	.2598920
Stddev	.0048942	.10252	.0020281	.068143	.0007237	.0012787
%RSD	.8817201	.9765351	.3825622	1.107905	.1412396	.4920136
#1	.5583171	10.51776	.5324794	6.099617	.5128108	.2599998
#2	.5574590	10.38703	.5288517	6.228003	.5115513	.2585629
#3	.5494437	10.58918	.5290939	6.124211	.5127986	.2611135

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.21688	.5444460	.9674237	9.181324	F .0017341	F .0061267
Stddev	.26842	.0067905	.0020247	.021417	.0016109	.0006678
%RSD	2.627253	1.247227	.2092887	.2332646	92.89312	10.90012
#1	10.36509	.5476192	.9694980	9.194302	.0002770	.0065821
#2	9.90703	.5490691	.9654526	9.156604	.0014613	.0064379
#3	10.37853	.5366499	.9673205	9.193065	.0034639	.0053601

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICV058 Acquired: 01/13/2025 16:02:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICV058 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0001605	F .0053351	F -.000555	F .0022629	F -.003263	F -.009235
Stddev	.0006599	.0021474	.000971	.0009086	.001165	.000134
%RSD	411.2212	40.25104	175.1421	40.15107	35.70039	1.446203
#1	.0007513	.0055283	-.000385	.0033117	-.002662	-.009313
#2	.0002816	.0073794	-.001600	.0017615	-.002521	-.009081
#3	-.000552	.0030976	.000321	.0017155	-.004606	-.009310

Elem	Li6707
Units	ppm
Avg	F .0096256
Stddev	.0045133
%RSD	46.88870
#1	.0128499
#2	.0044676
#3	.0115593

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3223.274	36653.98	2406.047	2209.515	4388.709
Stddev	5.830	158.63	18.336	10.932	4.879
%RSD	.1808731	.4327768	.7620908	.4947756	.1111651
#1	3217.201	36691.52	2393.912	2210.659	4383.077
#2	3223.795	36790.48	2397.088	2219.830	4391.647
#3	3228.826	36479.95	2427.140	2198.056	4391.402

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICB058 Acquired: 01/13/2025 16:06:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICB058 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015838	.0013183	-.001244	.0008670	.0000619	.0011184	-.000624
Stddev	.0033240	.0026713	.001076	.0010064	.0001781	.0278445	.000984
%RSD	209.8722	202.6282	86.50205	116.0795	287.6977	2489.620	157.7292
#1	.0046459	.0043779	-.000822	.0008718	-.000138	-.017943	-.001729
#2	.0020570	-.000551	-.000442	.0018710	.000205	-.011774	.000160
#3	-.001951	.000128	-.002466	-.000142	.000118	.033073	-.000303

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001040	-.000025	.0356818	-.000239	.0001431	-.001174	-.034468
Stddev	.0001807	.000061	.0160033	.000514	.0003023	.000550	.023834
%RSD	173.7870	242.0600	44.85017	215.0492	211.2030	46.83721	69.14859
#1	.0001508	-.000060	.0339097	.000073	.0004921	-.001809	-.015516
#2	.0002566	-.000061	.0524974	-.000832	-.000026	-.000832	-.061226
#3	-.000096	.000045	.0206382	.000042	-.000036	-.000882	-.026662

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004275	-.067522	-.000110	-.000141	-.311505	.0007707	.0002494
Stddev	.0001562	.010128	.000708	.000095	.348337	.0005267	.0001034
%RSD	36.53953	14.99901	642.5307	67.19236	111.8239	68.33586	41.44401
#1	.0005766	-.075118	.000221	-.000144	-.430828	.0002038	.0002561
#2	.0002651	-.071425	-.000924	-.000045	.080813	.0012448	.0003493
#3	.0004408	-.056024	.000372	-.000235	-.584500	.0008634	.0001429

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8333144	.0005148	.0015053	-.001099	-.002890	-.001798	.0012144
Stddev	.1653053	.0004513	.0034664	.000442	.001782	.000923	.0004507
%RSD	19.83709	87.67735	230.2735	40.18883	61.66048	51.33506	37.11267
#1	.6738713	-.000006	.0053825	-.000599	-.004516	-.001445	.0016167
#2	.8221555	.000762	.0004279	-.001264	-.000985	-.001104	.0007273
#3	1.003916	.000789	-.001294	-.001435	-.003168	-.002845	.0012994

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICB058 Acquired: 01/13/2025 16:06:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICB058 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0005295	-.000041	-.003005
Stddev	.0014831	.000104	.002815
%RSD	280.1189	252.4131	93.70403
#1	-.000110	-.000037	-.000120
#2	.002225	.000060	-.003147
#3	-.000526	-.000147	-.005746

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3223.128	36688.03	2405.890	2214.341	4647.222
Stddev	5.999	174.41	9.395	10.881	7.426
%RSD	.1861182	.4753920	.3904841	.4914031	.1597896
#1	3229.995	36663.14	2399.118	2215.407	4649.137
#2	3218.912	36527.40	2401.936	2202.966	4639.026
#3	3220.475	36873.55	2416.615	2224.650	4653.503

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICSA058 Acquired: 01/13/2025 16:10:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSA058 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093190	-.012898	.0020897	-.010198	.0147491	238.3435
Stddev	.0028980	.001244	.0023448	.002907	.0015130	.8334
%RSD	31.09746	9.646049	112.2042	28.50654	10.25858	.3496634
#1	.0092345	-.012624	-.000130	-.013310	.0130556	237.3865
#2	.0064641	-.014256	.001858	-.007552	.0159677	238.7352
#3	.0122582	-.011813	.004542	-.009733	.0152240	238.9089

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054626	.0028345	.0006201	251.2894	.0523357	-.008849
Stddev	.0006580	.0000910	.0000366	.5751	.0002797	.000770
%RSD	12.04455	3.208800	5.906608	.2288715	.5343829	8.705711
#1	.0059920	.0028914	.0006376	250.6616	.0522461	-.008400
#2	.0056700	.0028826	.0005780	251.7909	.0521118	-.008408
#3	.0047260	.0027296	.0006448	251.4157	.0526492	-.009738

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.017533	100.9213	.0020764	246.7233	.0039078	-.007467
Stddev	.000270	.3759	.0013053	.5850	.0010823	.001583
%RSD	1.537405	.3724204	62.86270	.2370923	27.69679	21.20353
#1	-.017234	100.7350	.0009195	246.2935	.0045431	-.006060
#2	-.017606	100.6750	.0034915	247.3894	.0026581	-.007159
#3	-.017758	101.3539	.0018181	246.4869	.0045223	-.009181

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7406486	.0038433	-.032685	-.005328	-.000214	F .0387692
Stddev	.8590745	.0001913	.000307	.142400	.001356	.0006944
%RSD	115.9895	4.978404	.9396799	2672.742	633.1662	1.790997
#1	.7138249	.0040253	-.032945	-.115908	-.000450	.0391895
#2	-.104700	.0038609	-.032346	.155351	-.001437	.0379678
#3	1.612821	.0036438	-.032764	-.055426	.001244	.0391505

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICSA058 Acquired: 01/13/2025 16:10:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSA058 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034128	.0077755	-.004964	F .0136577	-.004574	-.004296
Stddev	.0006598	.0016240	.000480	.0010325	.003038	.000509
%RSD	19.33227	20.88677	9.663872	7.559845	66.42230	11.85660
#1	.0039920	.0059387	-.005515	.0126567	-.005525	-.004879
#2	.0026946	.0090213	-.004739	.0135973	-.001174	-.004073
#3	.0035517	.0083665	-.004637	.0147190	-.007023	-.003936

Elem	Li6707
Units	ppm
Avg	.0061812
Stddev	.0026047
%RSD	42.13970
#1	.0090315
#2	.0055876
#3	.0039245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2913.227	33578.34	2296.136	2018.664	3877.966
Stddev	3.556	52.43	11.026	6.055	5.368
%RSD	.1220799	.1561415	.4802112	.2999744	.1384114
#1	2911.204	33531.88	2308.818	2016.653	3878.809
#2	2911.143	33567.97	2290.776	2025.469	3872.227
#3	2917.333	33635.19	2288.814	2013.870	3882.862

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICSAB058 Acquired: 01/13/2025 16:30:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSAB058 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1171723	.0926222	.0420968	.0776032	.5277001	247.1829
Stddev	.0036074	.0023335	.0029562	.0029593	.0024439	1.2036
%RSD	3.078669	2.519382	7.022346	3.813303	.4631129	.4869461
#1	.1181750	.0930140	.0449464	.0758228	.5266012	248.5476
#2	.1201722	.0901176	.0422996	.0759676	.5305005	246.2727
#3	.1131697	.0947351	.0390445	.0810192	.5259986	246.7283

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5443948	.5202058	1.017147	259.8811	.6226794	.4983477
Stddev	.0041630	.0060400	.001433	.8457	.0023801	.0005665
%RSD	.7647061	1.161076	.1408500	.3254064	.3822290	.1136753
#1	.5484104	.5181590	1.018059	260.8477	.6218176	.4987648
#2	.5446754	.5270032	1.015496	259.5179	.6208502	.4977028
#3	.5400986	.5154551	1.017886	259.2778	.6253703	.4985756

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5301714	104.3622	.5217240	255.0279	.9989990	.1966282
Stddev	.0042564	.5780	.0019973	1.2889	.0022047	.0009816
%RSD	.8028378	.5538056	.3828216	.5053998	.2206936	.4992360
#1	.5264726	104.9638	.5198195	256.5138	1.001385	.1963831
#2	.5348237	103.8112	.5238027	254.2106	.998575	.1957924
#3	.5292179	104.3116	.5215498	254.3594	.997037	.1977092

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.280684	.5392806	.9836251	-.857286	.0041140	F .0409489
Stddev	.637953	.0052809	.0048353	.103597	.0007883	.0019985
%RSD	49.81344	.9792538	.4915837	12.08426	19.16003	4.880491
#1	1.399735	.5366582	.9787649	-.963907	.0032147	.0430970
#2	1.850725	.5453594	.9836752	-.850948	.0044423	.0391447
#3	.591592	.5358241	.9884352	-.757005	.0046851	.0406048

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: ICSAB058 Acquired: 01/13/2025 16:30:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: ICSAB058 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033944	.0112972	-.004351	F .0141745	-.004596	-.004329
Stddev	.0005847	.0047710	.000234	.0010472	.001100	.000331
%RSD	17.22478	42.23124	5.373968	7.387613	23.93389	7.640042
#1	.0040687	.0155970	-.004236	.0151844	-.004206	-.004336
#2	.0030858	.0061647	-.004620	.0130937	-.003744	-.003995
#3	.0030286	.0121300	-.004197	.0142455	-.005838	-.004657

Elem	Li6707
Units	ppm
Avg	F .0180539
Stddev	.0046667
%RSD	25.84885
#1	.0212848
#2	.0201733
#3	.0127036

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2792.808	32551.28	2249.430	1946.752	3733.252
Stddev	2.992	139.37	16.009	7.433	4.322
%RSD	.1071219	.4281581	.7117034	.3817986	.1157678
#1	2795.244	32444.57	2255.529	1948.475	3735.259
#2	2793.711	32708.96	2231.267	1953.172	3736.206
#3	2789.469	32500.31	2261.492	1938.609	3728.292

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCV147 Acquired: 01/13/2025 16:41:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV147 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.965166	4.979631	25.41252	4.992154	4.844985	408.1825	10.30327
Stddev	.024907	.018448	.05359	.015725	.011965	1.8164	.05153
%RSD	.5016331	.3704693	.2108878	.3150008	.2469643	.4449994	.5001660
#1	4.993925	4.962010	25.36270	4.997619	4.855094	406.3773	10.24489
#2	4.951074	4.978076	25.40565	5.004418	4.848086	408.1603	10.32252
#3	4.950501	4.998808	25.46922	4.974425	4.831774	410.0099	10.34241

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5077025	2.565954	413.7586	16.05573	2.468060	15.10423	411.9669
Stddev	.0053140	.004900	.8148	.01705	.003496	.13677	.9740
%RSD	1.046676	.1909773	.1969221	.1061654	.1416630	.9054866	.2364241
#1	.5104687	2.560543	413.1797	16.04524	2.464932	15.17931	410.9203
#2	.5015760	2.567225	413.4059	16.07539	2.467415	14.94637	412.1334
#3	.5110627	2.570093	414.6904	16.04655	2.471834	15.18701	412.8468

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.06301	407.6725	2.576742	1.236552	407.2090	2.496722	15.51741
Stddev	.03754	1.0929	.004090	.001757	1.5311	.023902	.05104
%RSD	.2491870	.2680917	.1587117	.1421062	.3759879	.9573249	.3289242
#1	15.02198	406.5046	2.572924	1.236451	405.6581	2.515509	15.53529
#2	15.07144	408.6706	2.576243	1.234847	407.2494	2.469819	15.55709
#3	15.09562	407.8424	2.581058	1.238357	408.7195	2.504837	15.45983

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	159.7930	5.161101	5.067644	4.800462	5.180901	4.932986	5.131001
Stddev	1.9174	.013724	.044452	.000806	.006763	.047505	.009234
%RSD	1.199951	.2659098	.8771724	.0167897	.1305276	.9629992	.1799702
#1	157.8751	5.146769	5.090127	4.801260	5.173200	4.963919	5.123395
#2	159.7940	5.162410	5.016441	4.800476	5.183630	4.878289	5.128333
#3	161.7100	5.174123	5.096363	4.799649	5.185872	4.956750	5.141276

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCV147 Acquired: 01/13/2025 16:41:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV147 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	5.057068	4.846718	5.329066
Stddev	.014728	.023357	.065044
%RSD	.2912419	.4819084	1.220553
#1	5.045570	4.821632	5.256534
#2	5.051965	4.850684	5.348451
#3	5.073669	4.867837	5.382214

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2307.813	30493.13	2150.050	1712.980	3268.514
Stddev	7.723	125.71	12.717	12.149	17.960
%RSD	.3346638	.4122444	.5914679	.7092269	.5494954
#1	2316.685	30515.02	2136.945	1709.975	3288.737
#2	2302.592	30357.91	2162.339	1702.616	3262.382
#3	2304.163	30606.45	2150.867	1726.350	3254.422

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCB147 Acquired: 01/13/2025 16:44:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB147 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033649	.0000232	-.000208	.0027623	.0013508	-.001837
Stddev	.0002614	.0002823	.001526	.0028111	.0019806	.010337
%RSD	7.767210	1215.002	733.7718	101.7664	146.6267	562.7187
#1	.0032633	-.000190	-.001938	.0024773	.0013930	-.011619
#2	.0036618	-.000084	.000947	.0057051	.0033099	-.002868
#3	.0031696	.000343	.000366	.0001046	-.000651	.008976

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006493	.0002313	-.000062	-.016278	.0001490	.0001807
Stddev	.0012595	.0000610	.000022	.006028	.0002665	.0000786
%RSD	193.9660	26.38653	35.82913	37.03037	178.8871	43.50871
#1	-.000054	.0002753	-.000087	-.013800	-.000025	.0000971
#2	-.000101	.0002570	-.000045	-.011884	.000456	.0001919
#3	.002103	.0001616	-.000053	-.023150	.000016	.0002531

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007389	-.009701	.0000658	.0133575	.0000289	-.000032
Stddev	.0006755	.015114	.0007061	.0602895	.0004744	.000792
%RSD	91.41991	155.8008	1072.583	451.3534	1641.166	2448.822
#1	-.000040	-.003314	.0007438	.0462675	.0005009	-.000292
#2	.001097	-.026960	.0001190	-.056225	.0000337	-.000662
#3	.001160	.001171	-.000665	.050030	-.000448	.000857

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6235003	-.000059	.0004297	1.815324	-.000616	.0104230
Stddev	1.067903	.000138	.0003155	.134835	.001320	.0013268
%RSD	171.2755	236.0845	73.42068	7.427596	214.4098	12.72948
#1	1.851687	-.000106	.0004197	1.939454	-.000543	.0091312
#2	-.085908	.000097	.0001193	1.834648	.000666	.0103556
#3	.104722	-.000167	.0007500	1.671870	-.001970	.0117822

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCB147 Acquired: 01/13/2025 16:44:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB147 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000266	-.001114	-.002470	.0006902	.0017413	.0000000
Stddev	.000708	.002119	.000335	.0004979	.0021431	.0002689
%RSD	266.5315	190.1688	13.55823	72.14273	123.0695	589876.3
#1	.000330	.001281	-.002086	.0001702	.0030719	-.000069
#2	-.001049	-.001879	-.002706	.0007378	.0028830	-.000227
#3	-.000079	-.002744	-.002616	.0011627	-.000731	.000297

Elem	Li6707
Units	ppm
Avg	F .0363253
Stddev	.0080309
%RSD	22.10824
#1	.0450366
#2	.0347230
#3	.0292164

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3169.303	36211.56	2359.431	2189.185	4537.611
Stddev	7.852	119.10	14.275	4.902	2.673
%RSD	.2477426	.3288915	.6050166	.2239271	.0589101
#1	3171.154	36175.54	2343.024	2183.596	4534.980
#2	3176.065	36114.62	2369.006	2192.757	4540.324
#3	3160.692	36344.50	2366.264	2191.201	4537.528

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165922BL Acquired: 01/13/2025 16:53:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: PBS922 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016385	.0021250	-.000418	.0008597	-.000385	-.006767	-.000391
Stddev	.0005344	.0012084	.000860	.0047147	.001869	.019288	.001659
%RSD	32.61543	56.86677	205.7412	548.4006	485.2243	285.0218	424.1893
#1	.0012746	.0021347	-.001173	.0046315	-.000479	-.028094	-.002167
#2	.0013889	.0033285	.000518	-.004426	.001529	.009457	.001117
#3	.0022521	.0009117	-.000598	.002374	-.002206	-.001665	-.000123

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001209	-.000059	-.012206	-.000802	-.000136	.0000288	-.008553
Stddev	.0001393	.000040	.016563	.000299	.000204	.0001992	.032523
%RSD	115.2545	68.00387	135.6965	37.24000	150.3296	692.5098	380.2384
#1	-.000018	-.000092	.006778	-.000963	-.000281	-.000057	.000285
#2	.000120	-.000014	-.023710	-.000457	-.000223	-.000113	.018637
#3	.000261	-.000072	-.019685	-.000985	.000097	.000256	-.044582

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000563	.0982468	.0003681	-.000523	.1350204	.0006884	.0004944
Stddev	.002611	.0028087	.0000763	.000682	.3327720	.0014964	.0002349
%RSD	463.9946	2.858775	20.73365	130.4512	246.4605	217.3829	47.51064
#1	.002295	.0988354	.0003402	-.001308	.2020443	.0007895	.0005347
#2	-.001160	.1007145	.0003096	-.000178	-.226162	.0021316	.0002420
#3	-.002823	.0951904	.0004544	-.000082	.429179	-.000856	.0007065

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6625911	.0014524	.0015633	-.000736	.0002446	-.002774	.0004128
Stddev	.1562822	.0005200	.0013681	.000276	.0003913	.000520	.0005469
%RSD	23.58653	35.79914	87.51343	37.43881	159.9918	18.75071	132.4824
#1	.4823027	.0019012	.0031429	-.001004	-.000005	-.003243	.0001343
#2	.7459363	.0008826	.0007849	-.000453	.000696	-.002864	.0000613
#3	.7595342	.0015735	.0007620	-.000751	.000043	-.002215	.0010430

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165922BL Acquired: 01/13/2025 16:53:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: PBS922 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	-.002010	-.000218	-.012585
Stddev	.005621	.000126	.006491
%RSD	279.6137	57.96041	51.57331
#1	-.001181	-.000154	-.005527
#2	.003150	-.000136	-.013932
#3	-.008000	-.000363	-.018297

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3147.200	36040.78	2390.419	2172.157	4563.248
Stddev	10.837	55.82	22.106	.347	10.340
%RSD	.3443375	.1548920	.9247825	.0159790	.2266013
#1	3159.683	36073.65	2389.624	2171.766	4575.098
#2	3140.199	35976.32	2368.721	2172.428	4556.059
#3	3141.719	36072.36	2412.912	2172.278	4558.585

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165910BL Acquired: 01/13/2025 17:01:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: PBS910 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001369	.0010663	-.001839	.0033908	.0000161	.0218329
Stddev	.0004762	.0016638	.001550	.0021808	.0011732	.0163536
%RSD	347.8257	156.0289	84.28475	64.31536	7281.772	74.90363
#1	.0000354	-.000477	-.003319	.0043852	-.000470	.0336963
#2	-.000280	.000847	-.000228	.0048973	-.000836	.0031778
#3	.000656	.002829	-.001970	.0008900	.001354	.0286246

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000688	.0002037	-.000038	-.019329	-.000153	-.000032
Stddev	.001245	.0001294	.000004	.013445	.000783	.000443
%RSD	181.0760	63.49942	10.51794	69.55792	510.7567	1381.287
#1	-.001146	.0000865	-.000042	-.004627	.000462	-.000494
#2	.000722	.0001822	-.000038	-.022359	.000112	.000388
#3	-.001639	.0003425	-.000034	-.030999	-.001035	.000010

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000124	.0077701	-.000698	.0349851	-.000245	.0001270
Stddev	.000360	.0256303	.000639	.0632565	.000459	.0003890
%RSD	290.3752	329.8568	91.48831	180.8097	187.3874	306.2153
#1	-.000090	.0325942	.000023	.1008467	-.000083	.0000278
#2	-.000499	.0093128	-.000924	.0294053	-.000763	-.000203
#3	.000218	-.018597	-.001194	-.025297	.000111	.000556

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.607879	.0006310	.0001031	.6617839	-.000197	.0010356
Stddev	.466327	.0003653	.0003353	.1637238	.002076	.0007570
%RSD	76.71383	57.88902	325.1560	24.73976	1053.433	73.09859
#1	-.555977	.0002981	.0003622	.6193587	-.002070	.0002802
#2	-1.09799	.0010218	-.000276	.5234486	-.000555	.0017943
#3	-.16967	.0005733	.000223	.8425445	.002035	.0010324

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165910BL Acquired: 01/13/2025 17:01:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: PBS910 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000962	.0003026	-.002016	-.000478	.0028689	-.000159
Stddev	.000414	.0034190	.001107	.000967	.0021554	.000136
%RSD	42.96882	1129.894	54.89565	202.0096	75.12857	85.56715
#1	-.001235	.0001022	-.002616	-.001287	.0004487	-.000316
#2	-.000487	-.003012	-.000739	-.000740	.0045816	-.000076
#3	-.001165	.003817	-.002693	.000592	.0035766	-.000085

Elem	Li6707
Units	ppm
Avg	F -.034530
Stddev	.003843
%RSD	11.13002
#1	-.030114
#2	-.036358
#3	-.037118

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3180.238	36252.61	2371.766	2189.089	4554.344
Stddev	2.112	71.16	19.061	9.875	4.938
%RSD	.0664059	.1962829	.8036733	.4511197	.1084180
#1	3181.807	36313.61	2353.742	2200.259	4560.027
#2	3181.070	36269.78	2391.718	2181.519	4551.901
#3	3177.837	36174.44	2369.836	2185.490	4551.103

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165910BS Acquired: 01/13/2025 17:05:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: LCS910 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0241574	.0528681	.0160221	.0515745	.0967201	.4363128
Stddev	.0024650	.0015326	.0006950	.0020678	.0023711	.0109560
%RSD	10.20403	2.898890	4.337752	4.009416	2.451517	2.511042
#1	.0214052	.0518752	.0166677	.0495147	.0968690	.4307967
#2	.0249044	.0546331	.0152865	.0536503	.0942780	.4292113
#3	.0261625	.0520958	.0161120	.0515583	.0990132	.4489306

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4107138	.0106763	.0095368	10.57265	.0210380	.1026700
Stddev	.0037090	.0002848	.0000770	.09519	.0001041	.0002678
%RSD	.9030547	2.667763	.8071784	.9003606	.4950238	.2608842
#1	.4149791	.0108067	.0095997	10.67289	.0210601	.1024428
#2	.4089153	.0108726	.0095598	10.56160	.0209246	.1026020
#3	.4082469	.0103496	.0094510	10.48347	.0211293	.1029654

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0584424	.1832182	.0309278	10.28613	.0768040	.0208340
Stddev	.0006092	.0284405	.0019029	.06024	.0005618	.0006439
%RSD	1.042370	15.52273	6.152771	.5856814	.7314467	3.090604
#1	.0587642	.2069981	.0306439	10.30424	.0774464	.0214822
#2	.0588232	.1909433	.0329568	10.33525	.0764046	.0201945
#3	.0577398	.1517133	.0291828	10.21891	.0765611	.0208254

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.02333	.1114845	.1209124	10.01518	.0162348	F .0010921
Stddev	.85740	.0013573	.0005193	.14257	.0007490	.0010567
%RSD	8.554050	1.217445	.4295163	1.423554	4.613739	96.75889
#1	10.09657	.1130303	.1205319	10.05688	.0155565	.0017827
#2	9.13167	.1109355	.1215040	10.13224	.0161091	-.000124
#3	10.84177	.1104877	.1207011	9.85640	.0170387	.001618

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165910BS Acquired: 01/13/2025 17:05:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: LCS910 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0170319	.1680362	F .4910787	.0137263	.2011920	.1958314
Stddev	.0004423	.0034994	.0054021	.0011622	.0004924	.0012644
%RSD	2.596952	2.082539	1.100040	8.466628	.2447427	.6456471
#1	.0166682	.1663896	.4923047	.0150485	.2011653	.1972185
#2	.0169031	.1656639	.4957624	.0132637	.2016972	.1955323
#3	.0175243	.1720552	.4851690	.0128666	.2007135	.1947433

Elem	Li6707
Units	ppm
Avg	F -.000287
Stddev	.000917
%RSD	319.2056
#1	-.000273
#2	-.001211
#3	.000623

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3132.968	35688.42	2338.058	2137.832	4345.505
Stddev	8.660	278.27	34.195	18.995	6.790
%RSD	.2764243	.7797170	1.462539	.8885069	.1562528
#1	3123.326	35483.10	2319.739	2125.524	4343.241
#2	3140.087	35577.04	2316.924	2128.265	4340.136
#3	3135.489	36005.13	2377.509	2159.708	4353.138

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: P5207-11 Acquired: 01/13/2025 17:09:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN37 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4811069	-.027832	.6846842	.1277475	.0307980	80.33965
Stddev	.0045397	.002008	.0026432	.0045716	.0018430	.27756
%RSD	.9435854	7.213150	.3860513	3.578621	5.984069	.3454811
#1	.4834578	-.025514	.6839573	.1329529	.0291945	80.65950
#2	.4758739	-.028990	.6824804	.1243849	.0328114	80.19728
#3	.4839889	-.028992	.6876148	.1259048	.0303880	80.16217

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.082230	.0093224	.0065088	51.45711	.1267715	.0756340
Stddev	.002799	.0000054	.0000519	.23753	.0004321	.0003510
%RSD	.2586208	.0581043	.7977966	.4616042	.3408064	.4641220
#1	1.083840	.0093283	.0064637	51.44875	.1265614	.0756024
#2	1.078998	.0093211	.0064971	51.22388	.1264846	.0752998
#3	1.083852	.0093177	.0065656	51.69871	.1272684	.0759997

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4218842	199.9611	15.86956	27.76044	.2109461	-.047074
Stddev	.0024073	.7333	.03861	.14700	.0012997	.001371
%RSD	.5706050	.3667144	.2433107	.5295356	.6161105	2.913468
#1	.4229446	200.7277	15.88803	27.83524	.2101347	-.047392
#2	.4235794	199.2664	15.82519	27.59109	.2102586	-.048259
#3	.4191288	199.8892	15.89548	27.85501	.2124452	-.045571

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8199476	.1334556	.8227650	1.321257	F 12.35762	.1132020
Stddev	.3276784	.0006195	.0031870	.078549	.06459	.0016862
%RSD	39.96333	.4642208	.3873573	5.945015	.5226703	1.489587
#1	.7184646	.1327789	.8228374	1.333772	12.32580	.1146107
#2	.5550168	.1335927	.8259153	1.237201	12.31512	.1113336
#3	1.186361	.1339950	.8195424	1.392796	12.43194	.1136618

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: P5207-11 Acquired: 01/13/2025 17:09:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHN37 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0090342	2.007824	8.435926	.0369803	1.030694	-.067560
Stddev	.0003908	.017124	.036054	.0008029	.003694	.000590
%RSD	4.325544	.8528694	.4273809	2.171127	.3583924	.8733310
#1	.0094817	1.999682	8.464951	.0378701	1.034846	-.068225
#2	.0087605	1.996289	8.447259	.0367607	1.027771	-.067102
#3	.0088604	2.027500	8.395567	.0363101	1.029465	-.067352

Elem	Li6707
Units	ppm
Avg	.0684868
Stddev	.0025131
%RSD	3.669399
#1	.0679147
#2	.0663092
#3	.0712366

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4005.981	47046.39	3121.551	2813.003	4232.989
Stddev	17.137	243.31	21.129	9.453	12.051
%RSD	.4277740	.5171793	.6768634	.3360324	.2846904
#1	4024.849	46803.94	3097.324	2802.341	4245.884
#2	4001.710	47290.56	3136.158	2820.358	4231.072
#3	3991.383	47044.69	3131.171	2816.310	4222.012

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: P5198-16 Acquired: 01/13/2025 17:13:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMW3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1397763	-.008399	.3172553	.0952804	.0241029	60.12971	.5552084
Stddev	.0040664	.001368	.0036806	.0026540	.0008961	.14254	.0024680
%RSD	2.909225	16.28206	1.160141	2.785443	3.717779	.2370465	.4445170
#1	.1387200	-.009164	.3134575	.0958231	.0230682	60.01344	.5525261
#2	.1442666	-.009213	.3175019	.0923970	.0246283	60.28873	.5573832
#3	.1363423	-.006820	.3208063	.0976211	.0246122	60.08697	.5557158

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074519	.0062097	337.3729	.0948377	.0749162	.2121684	169.0236
Stddev	.0000568	.0000139	.9989	.0007823	.0000731	.0014520	.3034
%RSD	.7627032	.2240540	.2960880	.8248870	.0975654	.6843395	.1795200
#1	.0074210	.0062100	336.2415	.0941121	.0749685	.2118873	168.9352
#2	.0074171	.0061956	337.7440	.0956664	.0748327	.2108775	169.3614
#3	.0075175	.0062234	338.1331	.0947345	.0749475	.2137403	168.7742

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.94737	23.81585	.1523060	-.040137	1.017500	.0549904	.5084224
Stddev	.05067	.15793	.0002643	.000748	.580501	.0016586	.0024694
%RSD	.2823192	.6631493	.1735403	1.864363	57.05173	3.016189	.4856964
#1	17.95808	23.78349	.1521623	-.039934	.347267	.0543572	.5056168
#2	17.99182	23.98747	.1521446	-.039511	1.361134	.0568723	.5093842
#3	17.89220	23.67661	.1526110	-.040965	1.344099	.0537416	.5102662

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-2.31110	3.331579	.0946204	.0051307	1.513389	8.564317	.0263595
Stddev	.06098	.005709	.0015372	.0001816	.006914	.032996	.0016328
%RSD	2.638737	.1713615	1.624565	3.539399	.4568609	.3852762	6.194275
#1	-2.37754	3.336608	.0955882	.0052542	1.516220	8.544337	.0248847
#2	-2.25766	3.332756	.0954250	.0049222	1.505508	8.546213	.0260796
#3	-2.29811	3.325373	.0928479	.0052158	1.518437	8.602403	.0281141

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: P5198-16 Acquired: 01/13/2025 17:13:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: MBHMW3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5483169	.1986403	.0205305
Stddev	.0023261	.0009519	.0046200
%RSD	.4242161	.4792055	22.50325
#1	.5460021	.1976151	.0160588
#2	.5506540	.1994962	.0202471
#3	.5482946	.1988095	.0252858

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3772.680	43930.71	2973.889	2622.191	3817.414
Stddev	9.634	93.57	12.604	4.401	7.352
%RSD	.2553663	.2129946	.4238068	.1678408	.1925950
#1	3762.653	43871.82	2982.873	2625.249	3813.533
#2	3781.866	44038.60	2979.312	2624.178	3825.893
#3	3773.522	43881.70	2959.481	2617.147	3812.815

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165922BS Acquired: 01/13/2025 17:17:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: LCS922 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0225909	.0539324	.0176567	.0553068	.0978318	.4083834
Stddev	.0015468	.0016705	.0008917	.0020099	.0016473	.0165716
%RSD	6.846860	3.097370	5.050489	3.634130	1.683803	4.057864
#1	.0219759	.0520790	.0170974	.0550364	.0996697	.4266996
#2	.0214462	.0553220	.0186851	.0574382	.0973375	.3944288
#3	.0243506	.0543961	.0171876	.0534457	.0964883	.4040220

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4050464	.0105362	.0097151	10.44944	.0210731	.1042011
Stddev	.0014998	.0000172	.0000177	.03061	.0001621	.0001154
%RSD	.3702765	.1628420	.1825624	.2929793	.7690310	.1107233
#1	.4059431	.0105176	.0097153	10.47403	.0212334	.1040778
#2	.4033150	.0105397	.0097328	10.45913	.0210766	.1042191
#3	.4058812	.0105513	.0096973	10.41515	.0209094	.1043065

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0587373	.1877726	.0299038	10.15052	.0781209	.0208827
Stddev	.0013735	.0436610	.0010676	.02292	.0006708	.0010288
%RSD	2.338331	23.25207	3.570109	.2258298	.8586757	4.926371
#1	.0602436	.2131697	.0294351	10.13756	.0780298	.0219799
#2	.0575543	.2127903	.0311256	10.17699	.0788325	.0199398
#3	.0584141	.1373577	.0291507	10.13702	.0775002	.0207283

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.856140	.1108696	.1204095	9.723916	.0159723	F .0011377
Stddev	.298584	.0015022	.0006314	.226995	.0009273	.0019467
%RSD	3.029421	1.354942	.5244127	2.334402	5.805629	171.1034
#1	9.681089	.1123014	.1209725	9.482763	.0166873	.0012657
#2	10.20090	.1093057	.1197267	9.755550	.0149246	-.000870
#3	9.68643	.1110017	.1205292	9.933435	.0163051	.003017

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: PB165922BS Acquired: 01/13/2025 17:17:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: LCS922 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0172700	.1699433	F .4877718	.0144326	.1965450	.1941589
Stddev	.0004290	.0063474	.0027021	.0002671	.0043543	.0006515
%RSD	2.483999	3.735008	.5539707	1.850867	2.215438	.3355304
#1	.0176752	.1629415	.4908844	.0142458	.2013615	.1948508
#2	.0168207	.1715678	.4864034	.0147385	.1928872	.1935573
#3	.0173142	.1753206	.4860277	.0143134	.1953863	.1940686

Elem	Li6707
Units	ppm
Avg	F .0001445
Stddev	.0024763
%RSD	1714.115
#1	-.000783
#2	.002951
#3	-.001734

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3111.792	35985.75	2367.103	2158.266	4328.454
Stddev	12.584	57.29	27.381	4.738	13.110
%RSD	.4043874	.1592021	1.156732	.2195391	.3028704
#1	3113.376	36041.58	2336.142	2156.837	4329.102
#2	3098.491	35988.57	2388.133	2163.554	4315.032
#3	3123.508	35927.10	2377.033	2154.406	4341.227

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCV148 Acquired: 01/13/2025 17:21:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV148 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.954620	4.987250	25.54247	5.045827	4.911793	418.3417	10.49290
Stddev	.002996	.009358	.02295	.004424	.012403	.7395	.01628
%RSD	.0604708	.1876296	.0898681	.0876805	.2525065	.1767720	.1551764
#1	4.956194	4.976564	25.51601	5.049788	4.903597	419.1955	10.51067
#2	4.951165	4.993980	25.55716	5.041053	4.905722	417.9022	10.48934
#3	4.956502	4.991206	25.55423	5.046640	4.926062	417.9275	10.47870

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5233899	2.579588	418.7150	16.02952	2.477788	15.50371	419.3993
Stddev	.0028447	.001137	.8888	.03240	.001683	.07867	.7427
%RSD	.5435095	.0440598	.2122634	.2021125	.0679149	.5074315	.1770961
#1	.5223764	2.578605	418.0371	15.99913	2.476171	15.47821	419.9644
#2	.5266025	2.580832	418.3866	16.06361	2.477663	15.59197	418.5580
#3	.5211907	2.579325	419.7212	16.02582	2.479529	15.44095	419.6753

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.34734	415.9596	2.585588	1.235068	413.0406	2.567581	15.57673
Stddev	.04120	.8938	.002261	.007908	1.9432	.011116	.05173
%RSD	.2684778	.2148709	.0874641	.6402824	.4704581	.4329435	.3320700
#1	15.37432	416.8146	2.587830	1.227407	411.5669	2.564586	15.52698
#2	15.29991	415.0315	2.585628	1.243202	412.3121	2.579887	15.63022
#3	15.36780	416.0325	2.583307	1.234595	415.2427	2.558269	15.57299

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	162.4702	5.153747	5.193397	4.869656	5.199486	5.064538	5.144780
Stddev	1.0341	.005896	.023488	.003217	.008320	.021434	.003591
%RSD	.6364573	.1143978	.4522763	.0660713	.1600179	.4232161	.0697989
#1	161.4516	5.147896	5.185125	4.869943	5.191611	5.056180	5.148867
#2	162.4397	5.153658	5.219902	4.866305	5.208189	5.088892	5.143344
#3	163.5191	5.159686	5.175164	4.872720	5.198657	5.048542	5.142130

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCV148 Acquired: 01/13/2025 17:21:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCV148 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	5.151496	4.957502	5.294988
Stddev	.011494	.003801	.048234
%RSD	.2231124	.0766755	.9109376
#1	5.164607	4.961721	5.249778
#2	5.146721	4.954343	5.289424
#3	5.143159	4.956443	5.345763

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2276.726	30604.97	2106.789	1719.545	3256.317
Stddev	1.089	42.53	10.687	6.854	4.053
%RSD	.0478264	.1389715	.5072821	.3986125	.1244739
#1	2277.882	30598.30	2105.537	1720.050	3259.537
#2	2275.720	30566.17	2096.783	1712.453	3251.766
#3	2276.575	30650.44	2118.048	1726.133	3257.650

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCB148 Acquired: 01/13/2025 17:24:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB148 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017097	.0019195	-.000992	.0032655	-.000831	.0069098
Stddev	.0014201	.0009698	.000328	.0021694	.001032	.0097962
%RSD	83.06026	50.52240	33.09212	66.43162	124.1872	141.7728
#1	.0002680	.0012229	-.000939	.0018444	-.000075	.0023866
#2	.0031072	.0015084	-.001344	.0057625	-.000411	.0001924
#3	.0017541	.0030270	-.000694	.0021897	-.002006	.0181504

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002900	.0002794	-.000025	.0027031	.0003781	-.000101
Stddev	.0015044	.0002002	.000019	.0183946	.0003841	.000122
%RSD	518.7190	71.64497	77.40933	680.4917	101.5767	120.5535
#1	.0020236	.0001018	-.000015	-.001413	.0000626	-.000026
#2	-.000674	.0004964	-.000013	-.013285	.0008058	-.000241
#3	-.000479	.0002402	-.000047	.022807	.0002659	-.000035

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010544	.0128784	-.001586	.1023190	-.000214	-.000134
Stddev	.0003162	.0172200	.001382	.0139916	.000402	.000664
%RSD	29.98541	133.7125	87.13572	13.67446	187.6950	496.7505
#1	.0012840	.0191022	-.000039	.1027168	.000218	-.000882
#2	.0006938	-.006588	-.002697	.0881328	-.000284	.000093
#3	.0011853	.026121	-.002022	.1161075	-.000576	.000388

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.395506	.0001386	.0005430	1.552808	.0003964	.0116718
Stddev	1.091485	.0012434	.0003887	.053794	.0003644	.0009504
%RSD	275.9716	897.2958	71.59240	3.464311	91.92273	8.142377
#1	-1.16023	.0012120	.0004812	1.541387	.0006653	.0105922
#2	.85446	-.001224	.0009589	1.611396	.0005423	.0123821
#3	-.88075	.000428	.0001888	1.505642	-.000018	.0120410

Reviewed By:Mohan
On:1/13/2025 6:25:37 PM
Inst Id :P5

Sample Name: CCB148 Acquired: 01/13/2025 17:24:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v101) Mode: CONC Corr. Factor: 1.00000
User: Kareem Custom ID1: CCB148 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001632	-.002769	-.001965	-.000302	.0008047	.0000701
Stddev	.0001964	.001113	.000799	.000548	.0027865	.0001651
%RSD	120.3836	40.19822	40.66260	181.4712	346.2896	235.5449
#1	.0001784	-.001879	-.001929	.000329	.0024774	-.000009
#2	.0003515	-.002412	-.001185	-.000578	-.002412	.000260
#3	-.000040	-.004017	-.002782	-.000656	.002349	-.000040

Elem	Li6707
Units	ppm
Avg	F .0292930
Stddev	.0071321
%RSD	24.34741
#1	.0373037
#2	.0269422
#3	.0236330

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3206.016	36533.77	2436.972	2212.511	4587.942
Stddev	16.714	513.32	12.973	33.493	21.642
%RSD	.5213285	1.405057	.5323469	1.513782	.4717235
#1	3200.178	36951.95	2449.491	2239.099	4574.413
#2	3224.866	35960.89	2437.836	2174.895	4612.903
#3	3193.004	36688.48	2423.588	2223.540	4576.510

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : P5198

Test : Metals CLP Full

Prepbatch ID : PB165922,

Sequence ID/Qc Batch ID: LB134223,LB134241,LB134256,

Standard ID :
MP83498,MP83500,MP83501,MP83502,MP83503,MP83504,MP83505,MP83506,MP83507,MP83508,MP83509,MP83510,MP83511,MP83512,MP83513,MP83514,MP83619,MP83726,MP83745,

Chemical ID :
M5130,M5218,M5223,M5289,M5295,M5296,M5390,M5393,M5429,M5473,M5496,M5497,M5498,M5513,M5515,M5519,M5658,M5697,M5698,M5768,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5816,M5817,M5818,M5819,M5820,M5875,M5959,M5960,M5962,M5970,M5976,M5978,M5982,M5985,M5990,M5999,M6021,M6023,M6025,M6028,M6030,M6121,M6125,M6126,W3112,

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP83498	12/09/2024	01/31/2025	Janvi Patel	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83500	12/06/2024	01/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2480	ICP AES STD 6 ISM01.3	MP83501	12/06/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 4.00000ml of M5289 + 4.00000ml of M5498 + 4.00000ml of M5515 + 4.00000ml of M5768 + 4.00000ml of M5806 + 30.00000ml of MP83500 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1004	ICPAES ISM01.2 (S5)	MP83502	12/06/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.25000ml of M5798 + 0.50000ml of M5429 + 0.50000ml of M5473 + 0.50000ml of M5815 + 0.50000ml of M5817 + 12.50000ml of M5519 + 12.50000ml of M5698 + 12.50000ml of M5806 + 12.50000ml of M5819 + 13.75000ml of M5697 + 14.50000ml of M5496 + 14.50000ml of M5515 + 14.50000ml of M5658 + 2.00000ml of M5513 + 22.50000ml of M5497 + 22.50000ml of M5768 + 5.00000ml of M5296 + 5.00000ml of M5393 + 5.00000ml of M5802 + 5.00000ml of M5818 + 5.00000ml of M5875 + 303.50000ml of MP83500 = Final Quantity: 500.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1005	ICPAES ISM01.2(S4)	MP83503	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 250.00000ml of MP83500 + 250.00000ml of MP83502 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1007	ICPAES ISM01.2(S3)	MP83504	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 25.00000ml of MP83502 + 75.00000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1008	ICPAES ISM01.2(S2)	MP83505	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 12.50000ml of MP83502 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP83506	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5473 + 0.20000ml of M5515 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M5698 + 0.40000ml of M5496 + 0.50000ml of M5697 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5960 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5498 + 10.00000ml of M5519 + 10.00000ml of M5769 + 10.00000ml of M5806 + 10.00000ml of M5818 + 2.00000ml of M5978 + 4.00000ml of M5390 + 99.50000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1003	ICPAES ISM01.2 S1	MP83507	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.50000ml of MP83506 + 99.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2054	ICV-ICPAES	MP83508	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.50000ml of M5218 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 0.50000ml of M5982 + 10.00000ml of M5295 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP83509	12/09/2024	01/13/2025	Kareem Khairalla	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 12/09/2024

FROM 10.00000ml of M5130 + 90.00000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
905	ICP AES ICSAB SOLN	MP83510	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 10.00000ml of M5130 + 10.00000ml of M5223 + 80.00000ml of MP83500 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1119	ICPAES ISM01.2(CCV)	MP83511	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.75000ml of M5497 + 0.75000ml of M5769 + 1.22500ml of M5496 + 1.25000ml of M5515 + 1.25000ml of M5806 + 19.77500ml of MP83500 + 25.00000ml of MP83502 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
921	ICPAES SPIKE SOL#6	MP83512	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 2.50000ml of M5962 + 50.00000ml of M5990 + 50.00000ml of M5999 + 147.50000ml of MP83500 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP83513	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6126 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
513	RINSE SOLN	MP83514	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 200.00000ml of M6126 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP83619	12/13/2024	01/10/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Mohan Bera 12/17/2024

FROM 25.00000ml of M6121 + 4925.00000ml of W3112 + 50.00000ml of M6126 = Final Quantity: 5000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3559	SE 100PPM	MP83726	12/18/2024	01/10/2025	Sarabjit Jaswal	None	None	Mohan Bera 12/20/2024

FROM 1.00000ml of M5962 + 9.00000ml of MP83500 = Final Quantity: 10.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1905	TL 10PPM	MP83745	12/15/2024	01/10/2025	Sarabjit Jaswal	None	None	Mohan Bera 12/23/2024

FROM 0.10000ml of M6023 + 9.90000ml of MP83619 = Final Quantity: 10.000 ml

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	01/31/2025	05/20/2024 / jaswal	04/20/2021 / bin	M5223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Aluminum (Al) 10,000PPM	070622	07/06/2025	09/02/2022 / jaswal	07/12/2022 / jaswal	M5289

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	04/20/2021 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	08/07/2024 / jaswal	09/18/2022 / bin	M5390

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	10/12/2022 / bin	09/19/2022 / bin	M5393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	03/16/2023 / jaswal	03/16/2023 / jaswal	M5473

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5498

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	061522	06/15/2025	03/19/2023 / bin	03/17/2023 / bin	M5513

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	092122	09/21/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5515

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	102623	10/26/2026	04/18/2024 / jaswal	10/27/2023 / jaswal	M5698

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	05/24/2024 / Jaswal	01/03/2024 / bin	M5769

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/03/2024 / kareem	06/11/2024 / kareem	M5960

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5976

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	031524	03/15/2027	07/01/2024 / Jaswal	06/11/2024 / Jaswal	M5982

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-5 / CLP Spike Standard 5	V2-MEB742037	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5990

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-1 / SOIL/WATER SPIKE SOLN 1, 125mL	T2-MEB721963	07/27/2027	09/04/2024 / Jaswal	02/22/2024 / kareem	M5999

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	05/25/2025	11/26/2024 / Eman	11/22/2024 / Eman	M6125

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-5
Lot Number:	V2-MEB742037
Matrix:	5% (v/v) HNO_3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Selenium, Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.7 µg/mL	Arsenic, As	40.00 ± 0.26 µg/mL
Cadmium, Cd	49.99 ± 0.22 µg/mL	Lead, Pb	19.99 ± 0.09 µg/mL
Selenium, Se	50.00 ± 0.23 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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

Certified Reference Material CRM

M6028

R 8/5/24

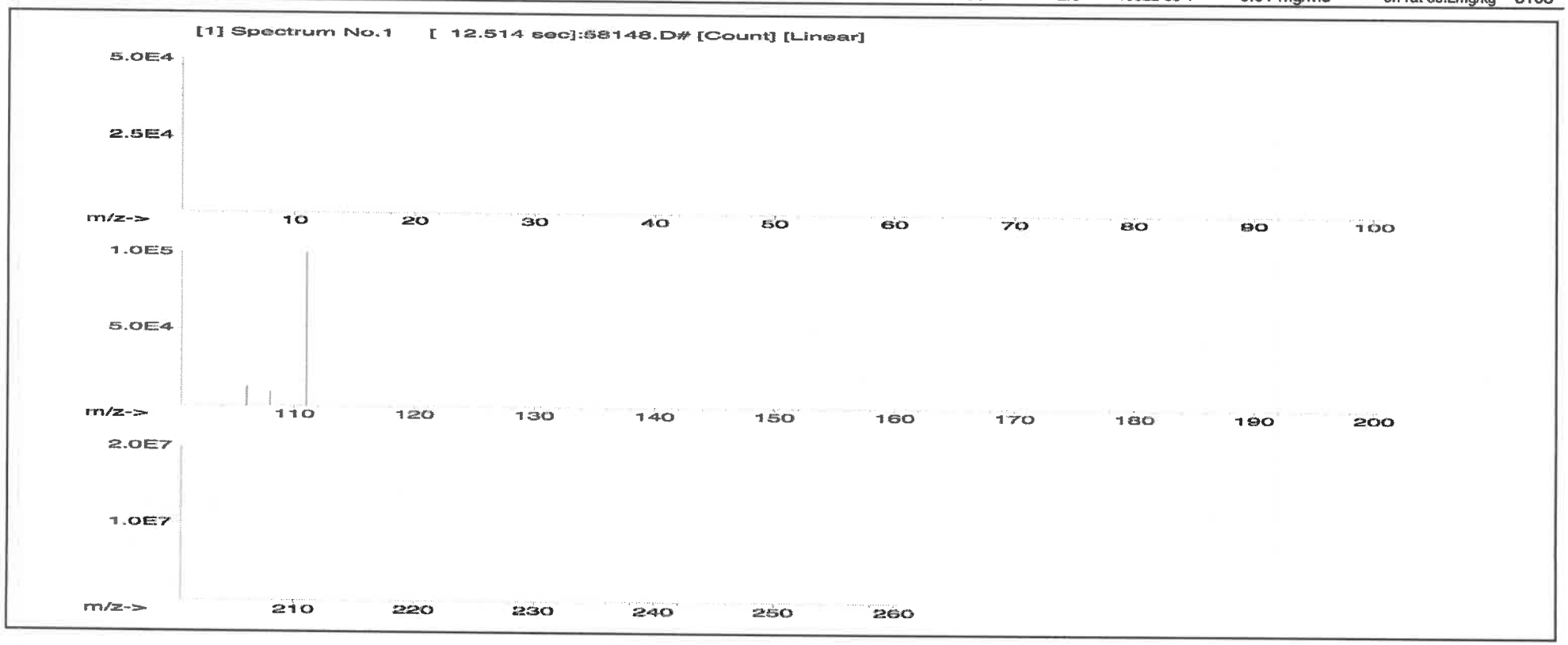
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady		
Formulated By:	Aleah O'Brady	070124
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5296 OP: 09/19/2022 BH

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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

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X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

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Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

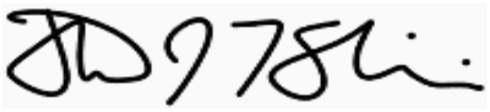
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

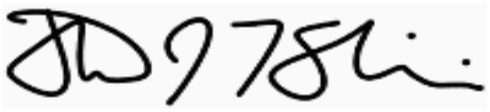
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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

Certified Reference Material CRM

R: 8/5/24 M6025

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

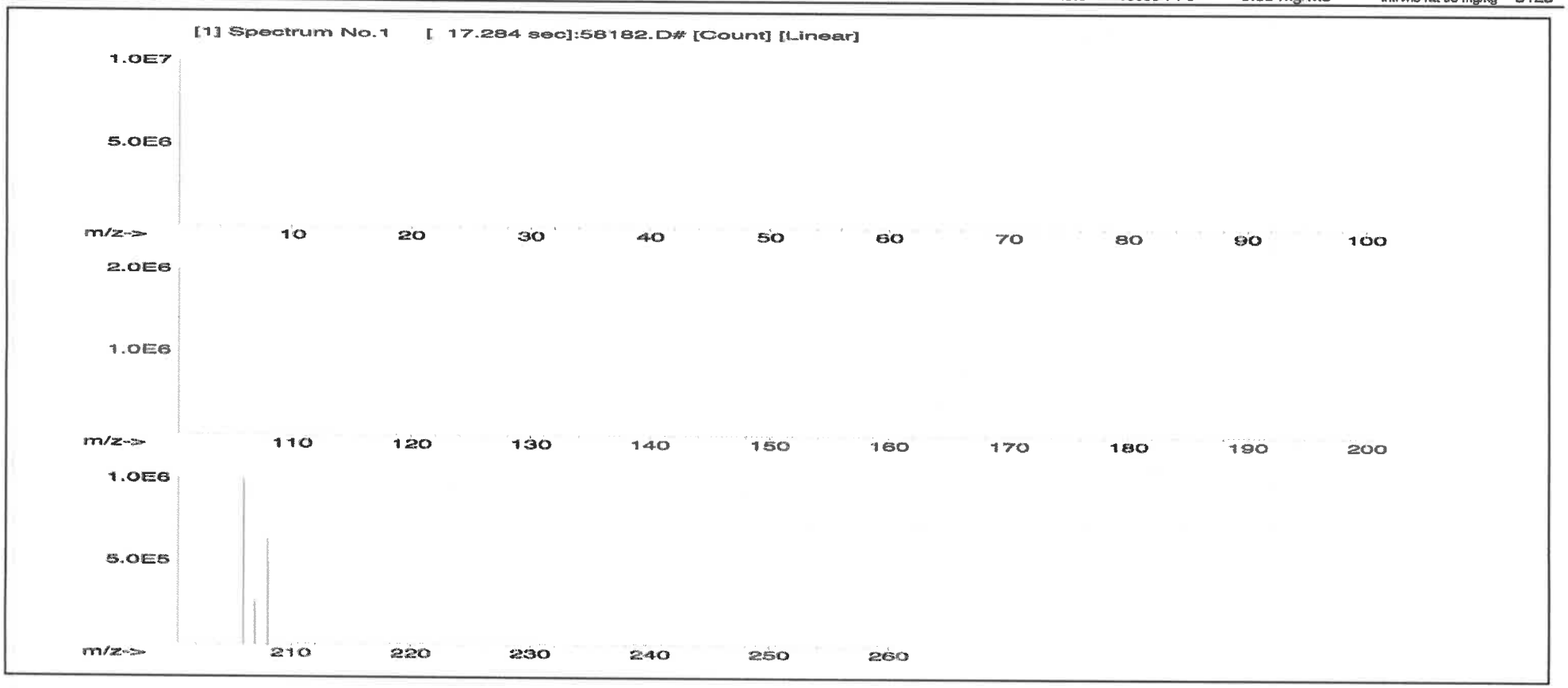
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 7 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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M5289 R: 07/12/22 BH

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

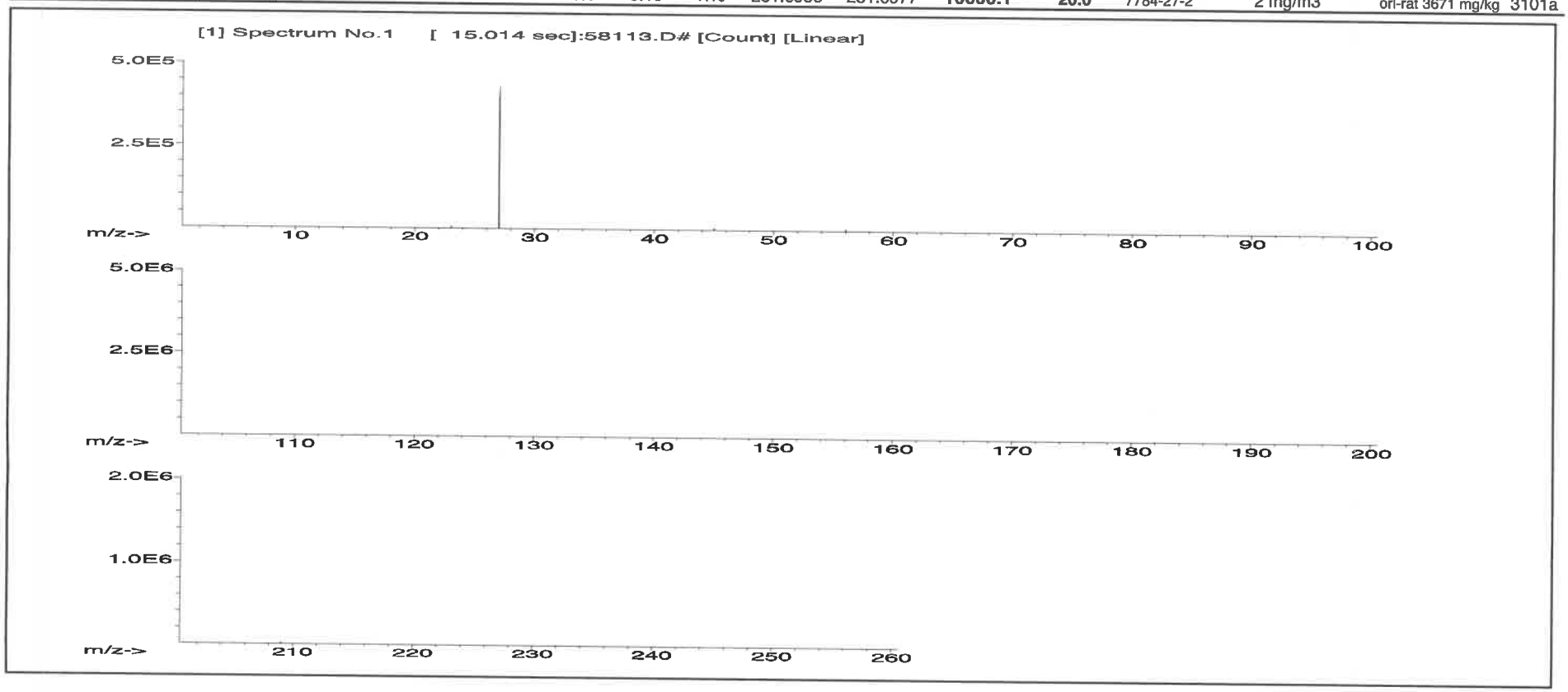
Part Number: 58113
Lot Number: 070622
Description: Aluminum (Al)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20370011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALD012021A1	10000	99.999	0.10	7.10	281.6956	281.6977	**10000.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	T	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

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R: 09/08/22 (BH)

Certified Reference Material CRM

M5387 . M5389 . M5390 . M5391 . M5392

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

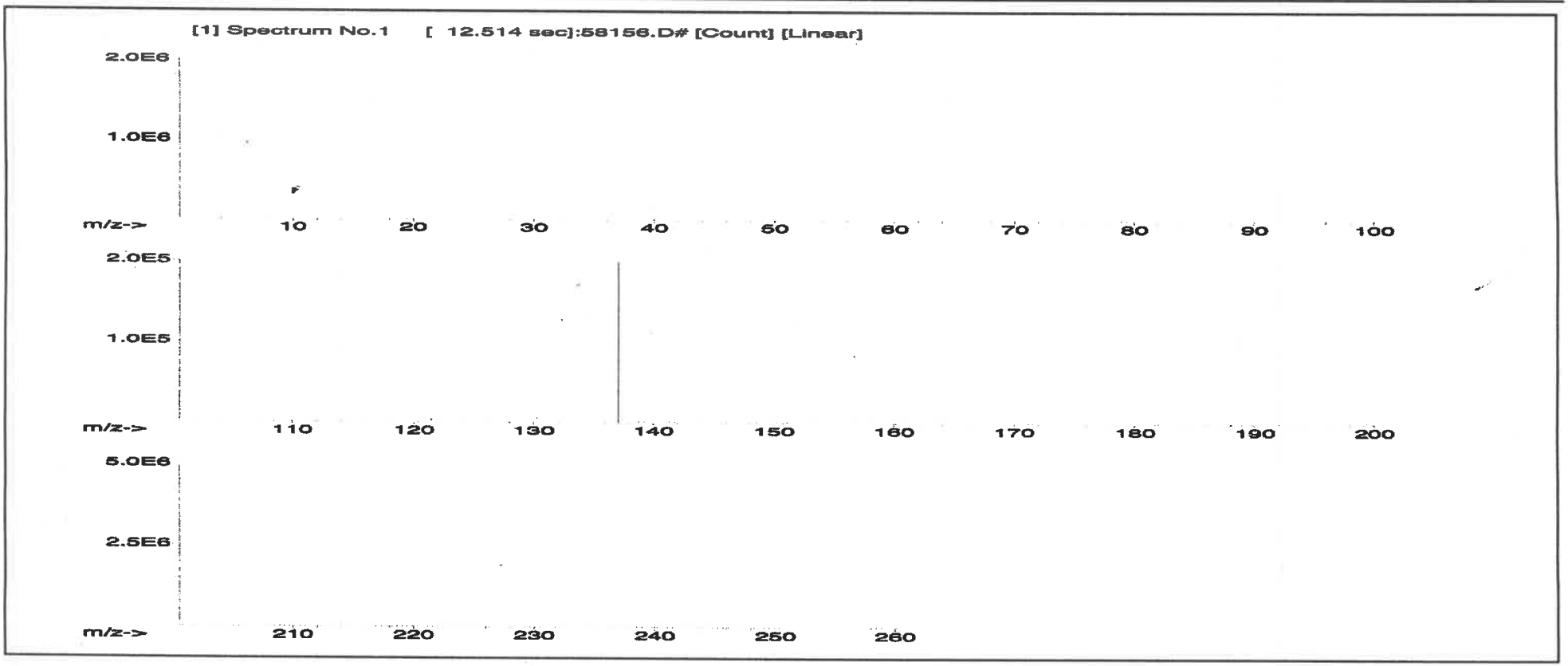
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**072122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	072125				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	2.0	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 | 0.058 Flask Uncertainty

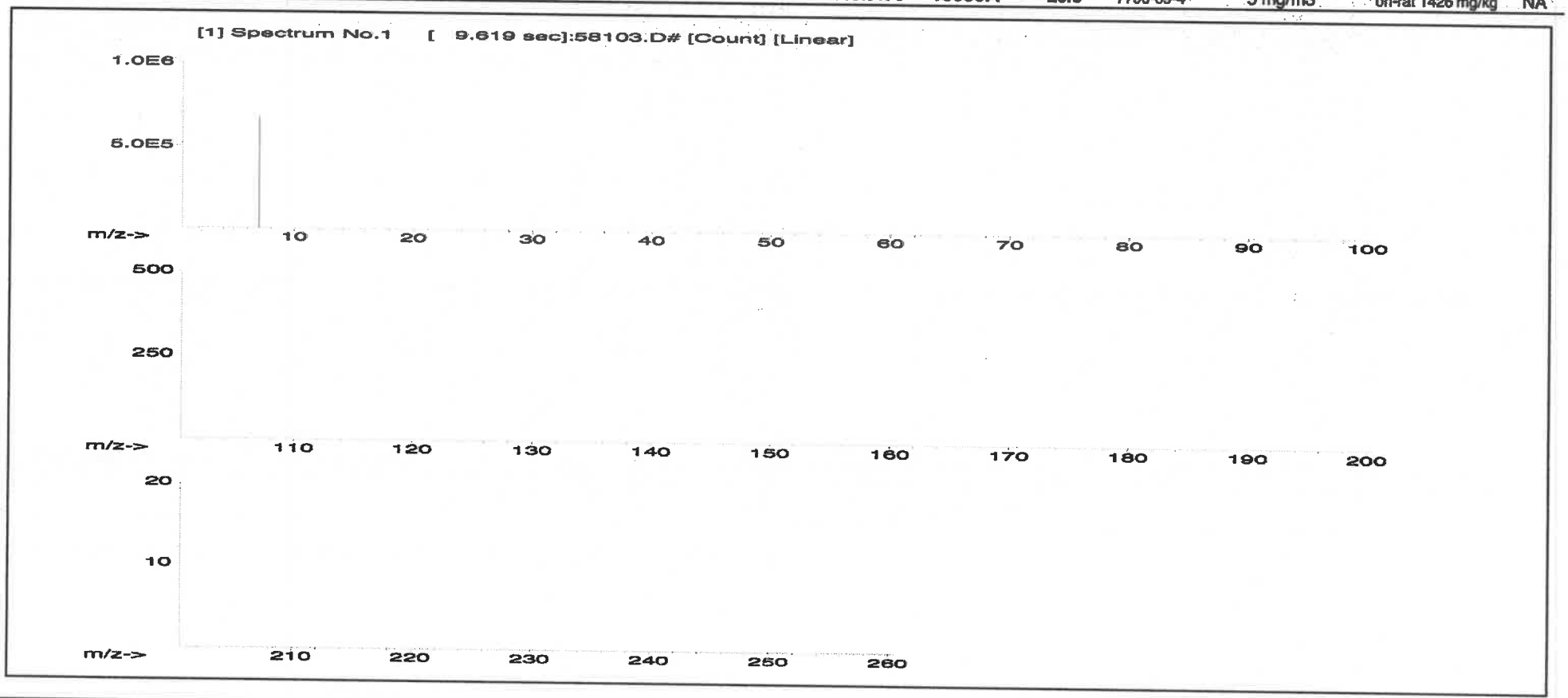
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By: Lawrence Barry 070622

Reviewed By: Pedro L. Rentas 070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

IN5497 - IN5498 R: 03/17/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

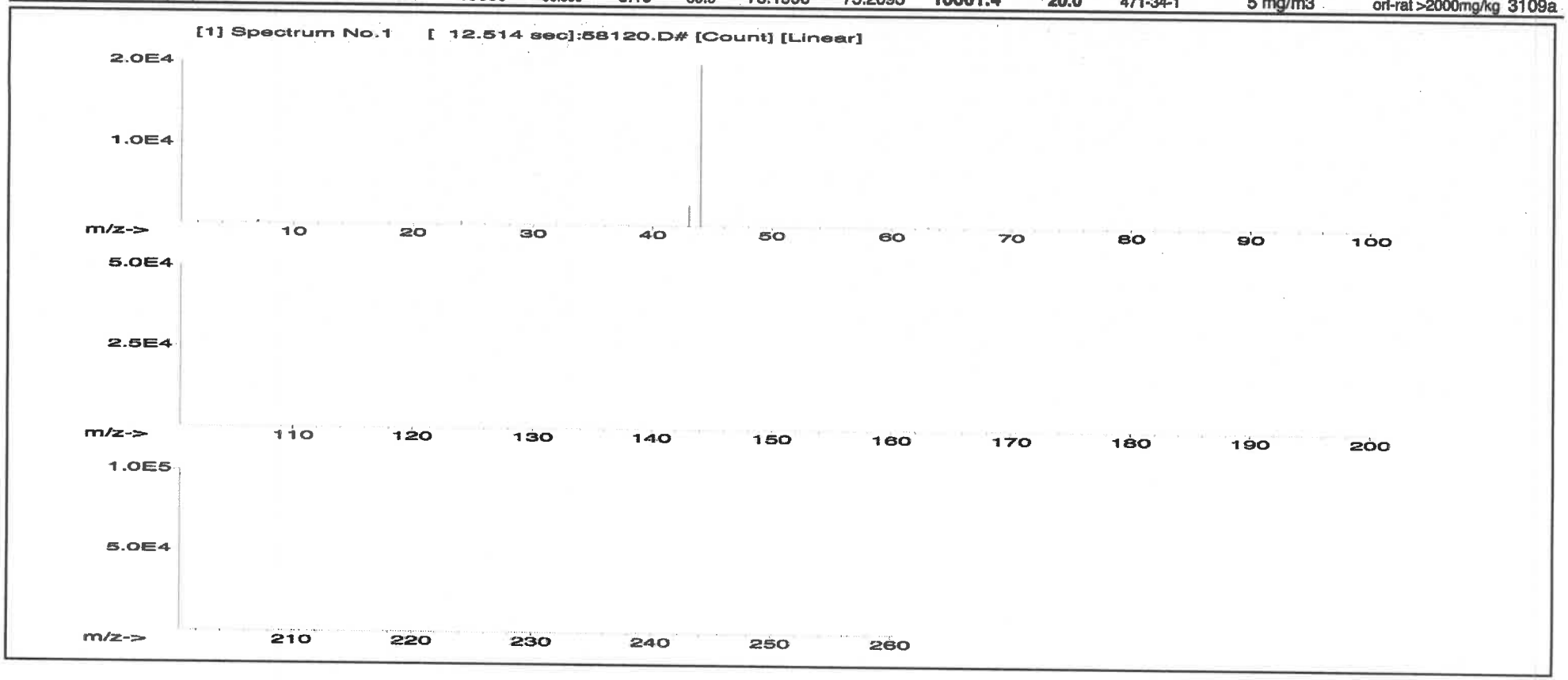
		Lot #	
Solvent:	21110221		Nitric Acid
	2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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IN5497 - IN5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

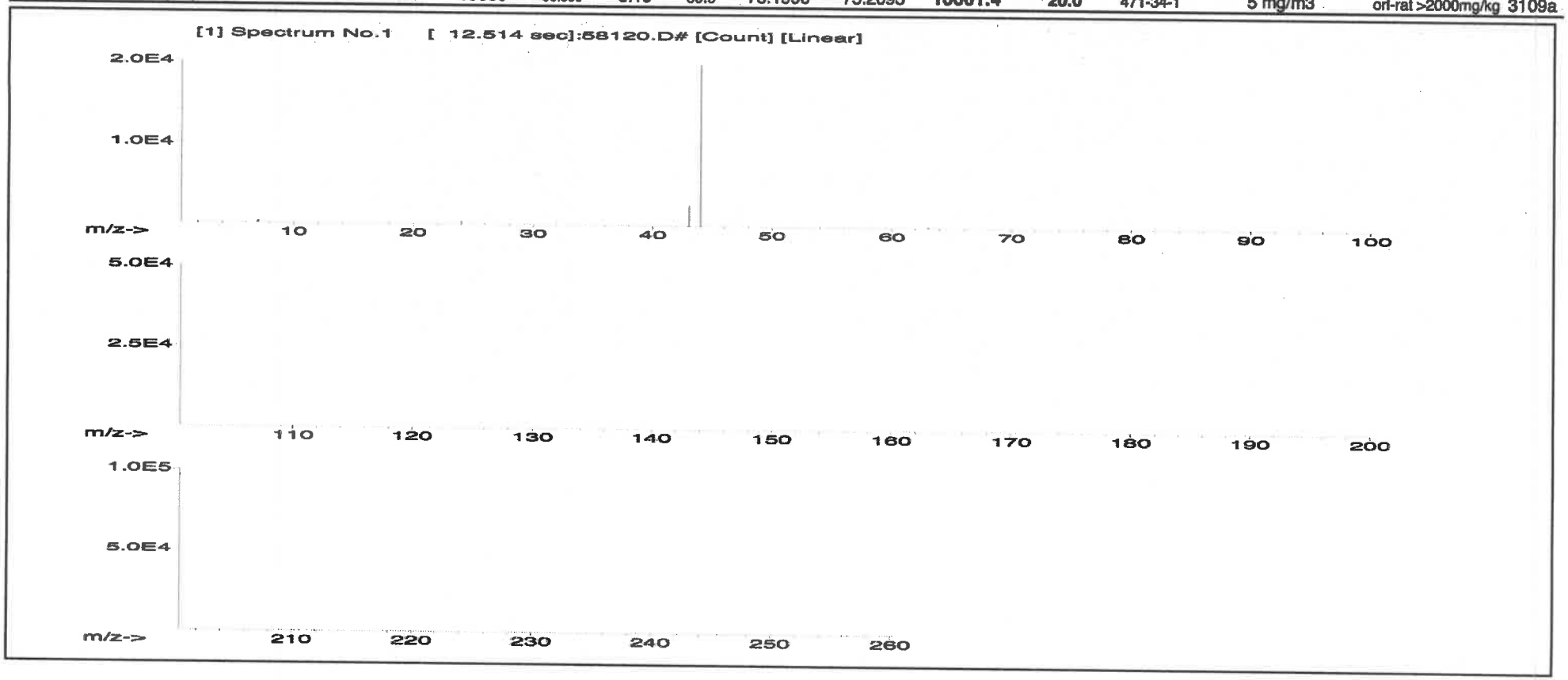
		Lot #	
Solvent:	21110221		Nitric Acid
	2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M 5513 R: 03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

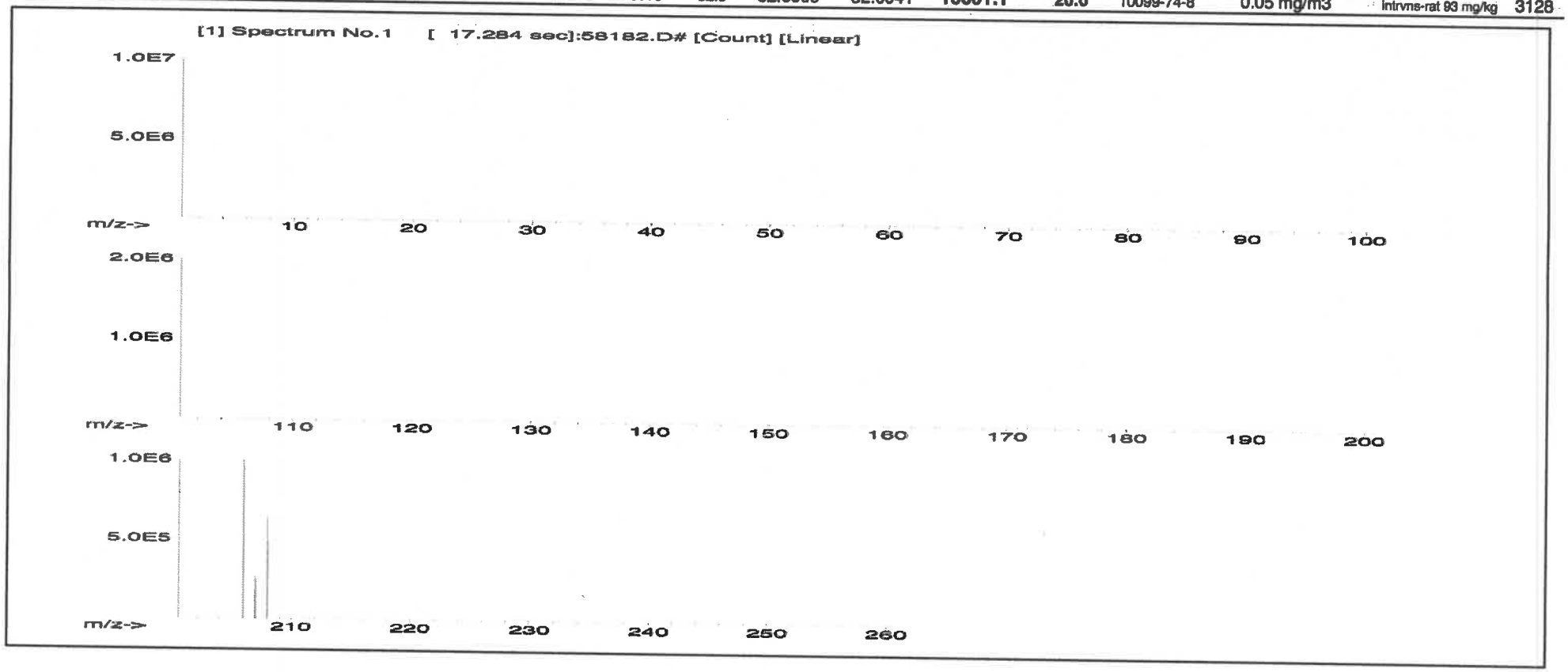
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	061522
Reviewed By:	Pedro L. Rentas	061522

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5514 , M5515 R: 03/17/23

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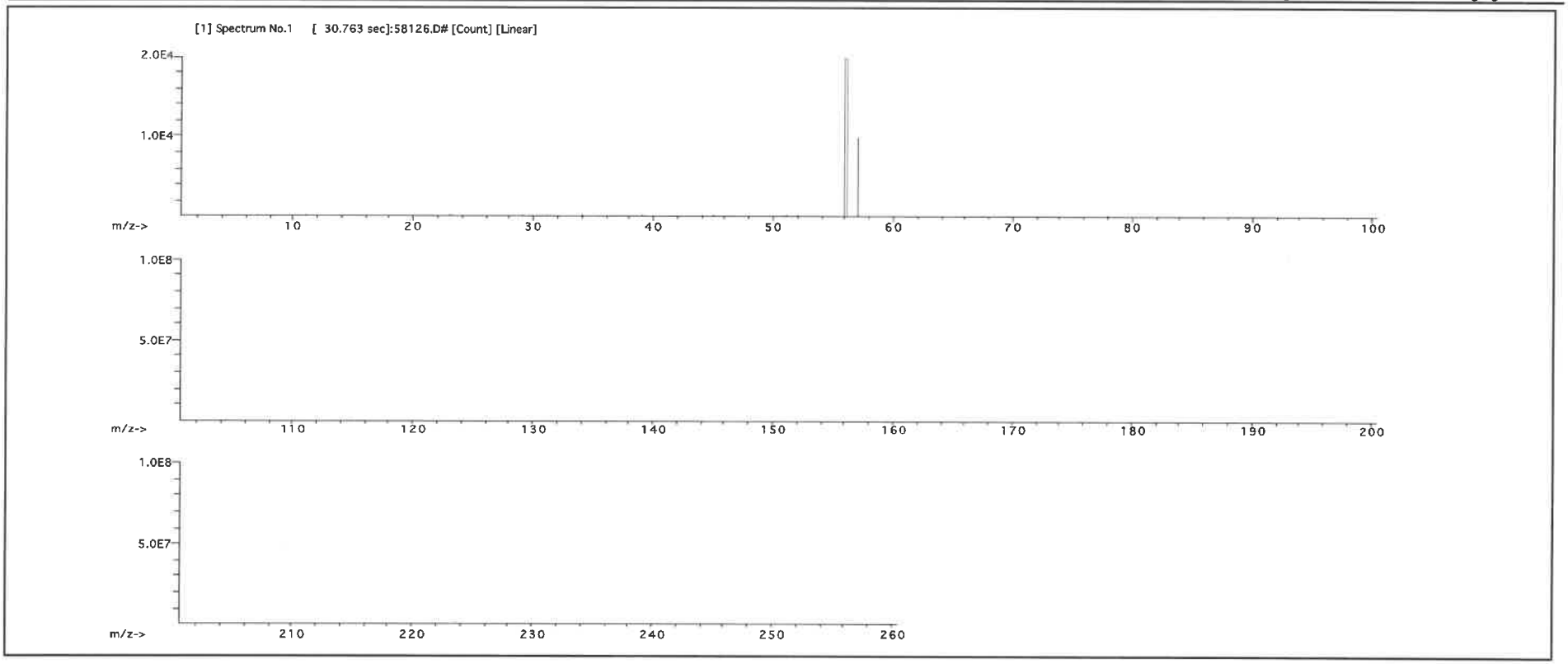
CERTIFIED WEIGHT REPORT:

Part Number:	**58126**		**Lot #**		
Lot Number:	**092122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Iron (Fe)**	7.0%	350.0 (mL)	Nitric Acid	
Expiration Date:	092125				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	092122
Reviewed By:	Pedro L. Rentas	092122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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M5519. M5520 (BH) R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

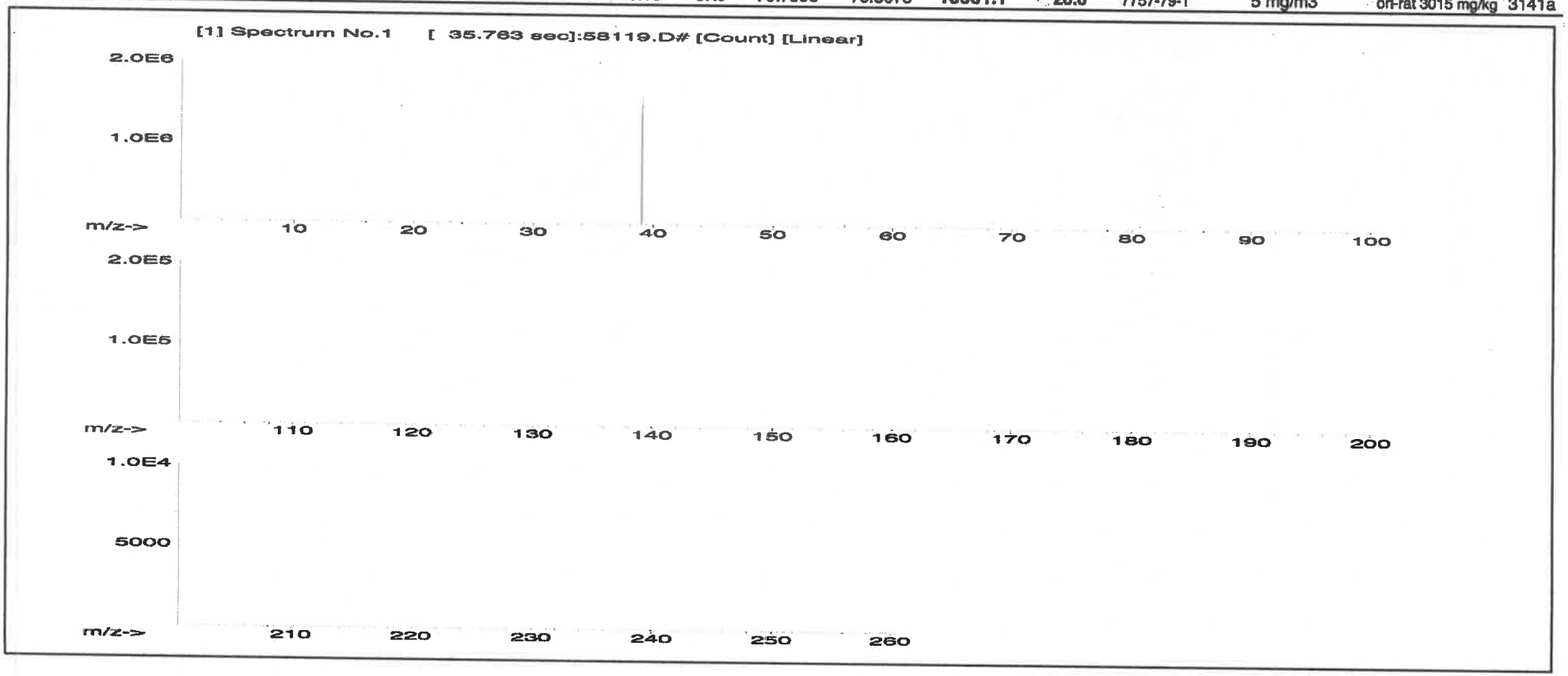
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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M5658 R! 8/25/23

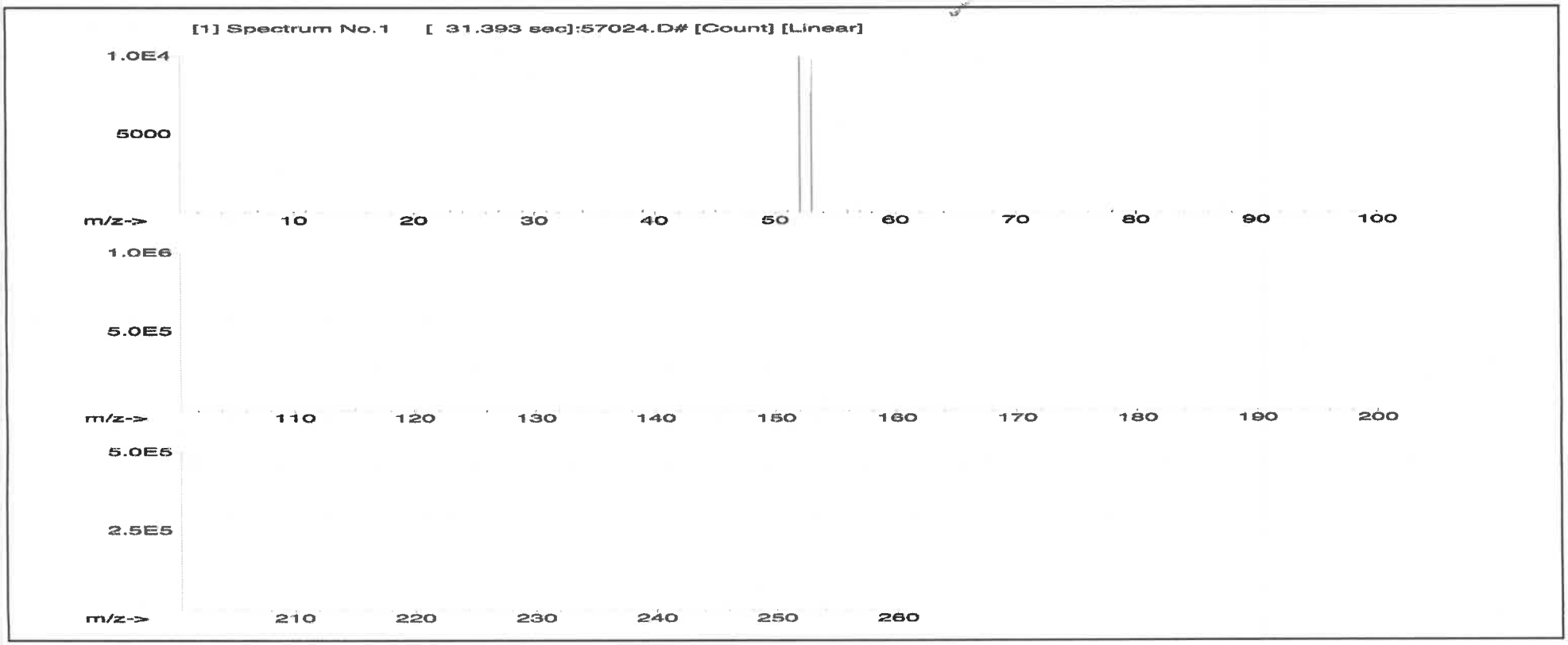
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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M5697 R: 10/27/23

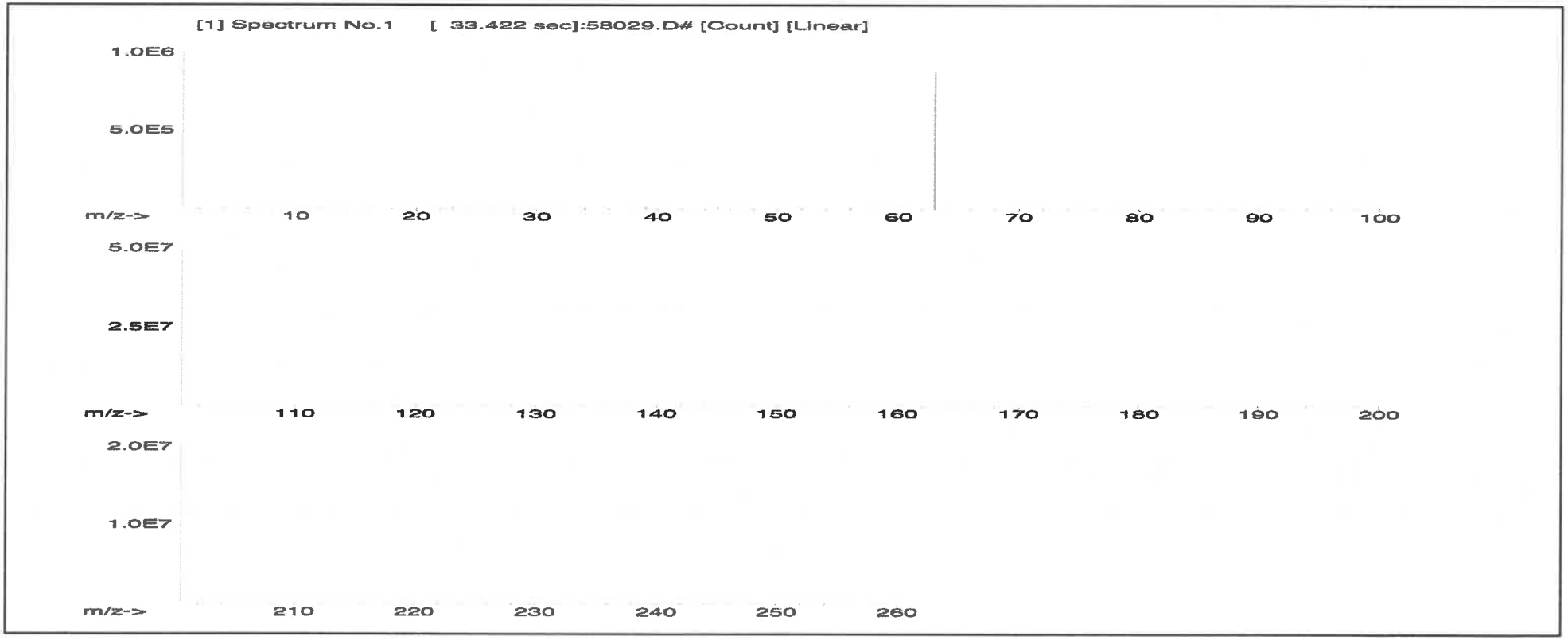
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5648 R: 10/27/23

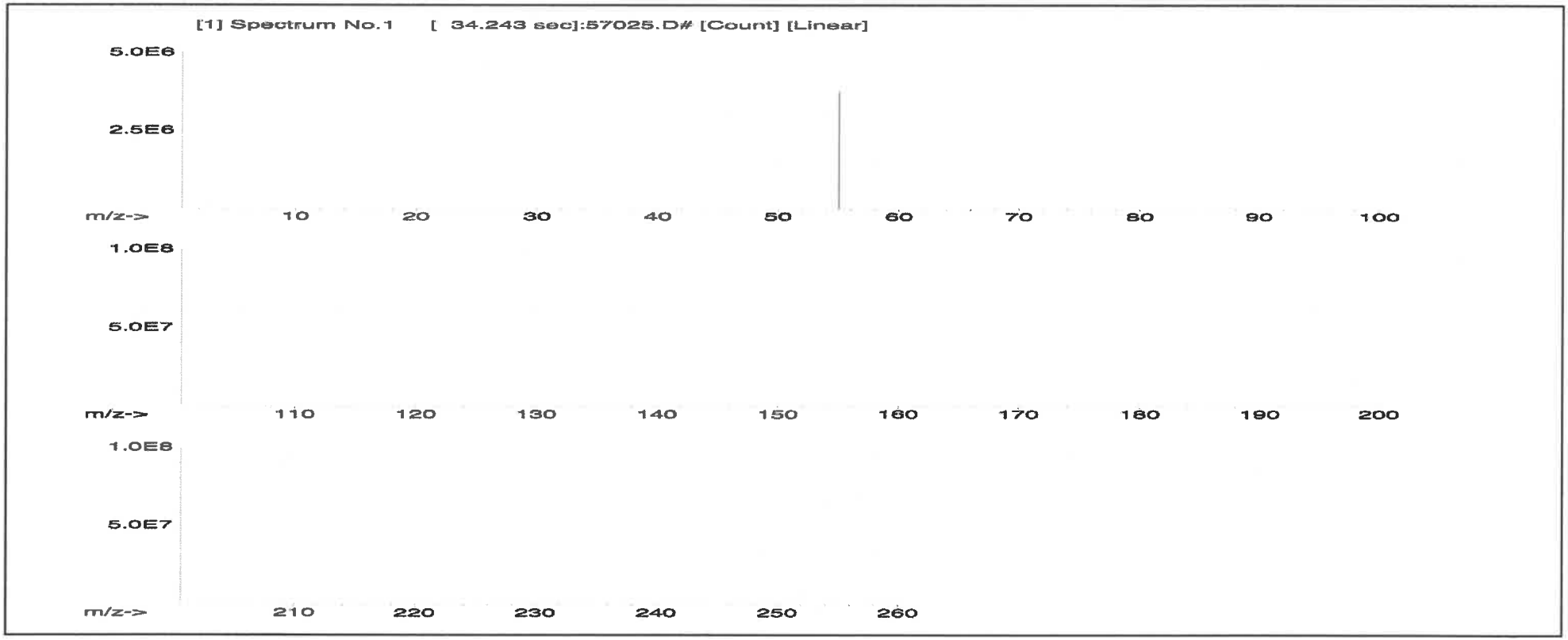
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58025**	24002546	Nitric Acid	
Lot Number:	**102623**			
Description:	**Manganese (Mn)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	102626			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Rentas	102623

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	**1000.0**	**2.1**	20694-39-7	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the balances that are calibrated with weights traceable to NIST (see above).
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

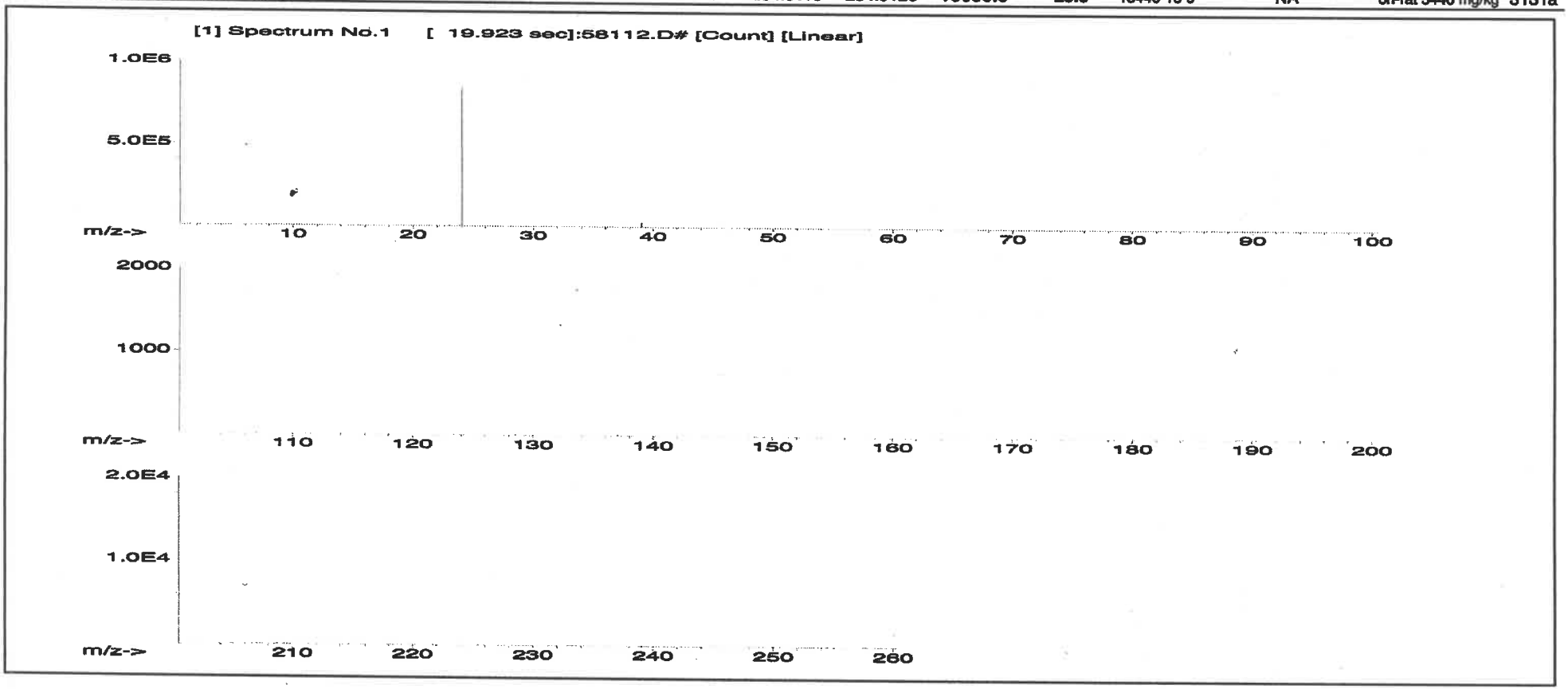
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

M5768, M5769 (BP) R: 1/3/24

Formulated By:	Lawrence Barry	091823
Reviewed By:	Pedro L. Rentas	091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

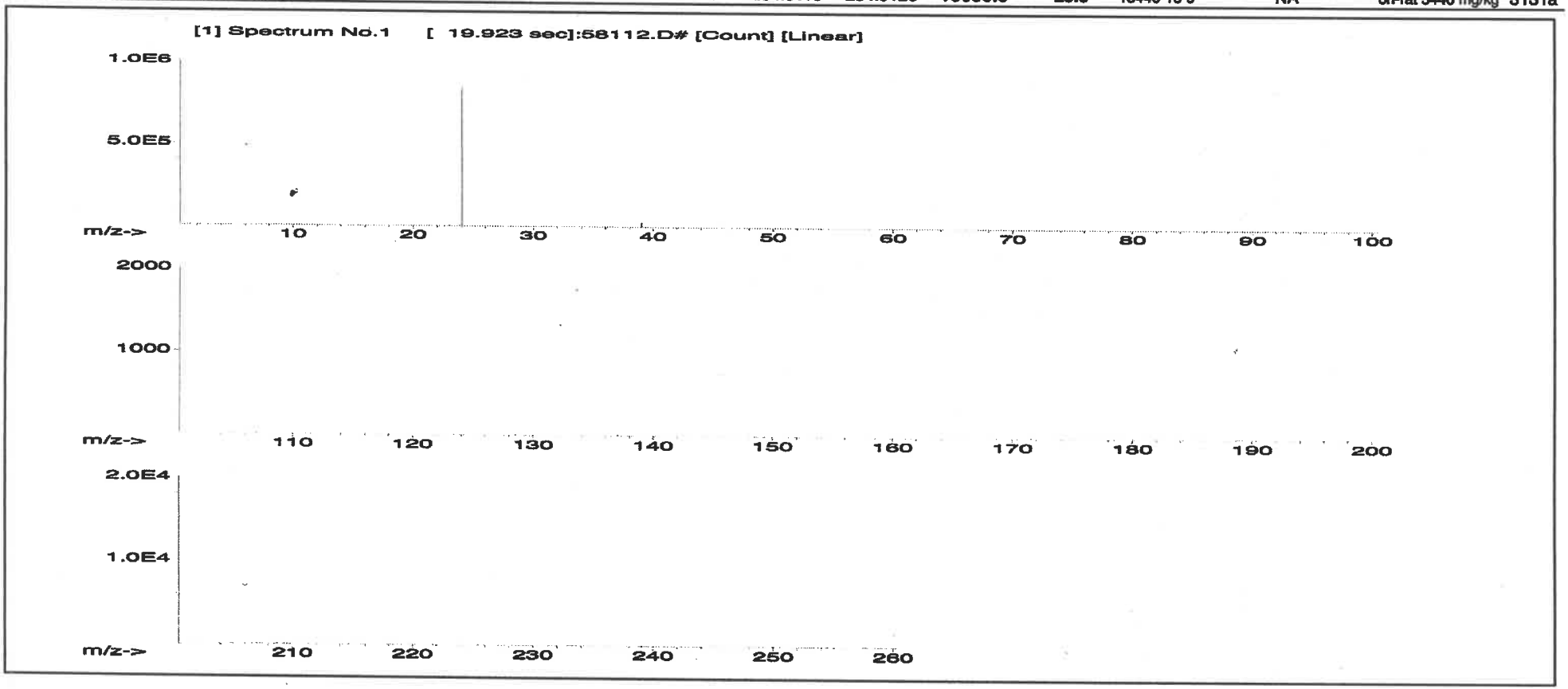
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

M5768, M5769 (BP) R: 1/3/24

Formulated By:	Lawrence Barry	091823
Reviewed By:	Pedro L. Rentas	091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R: 02/09/24 M5798

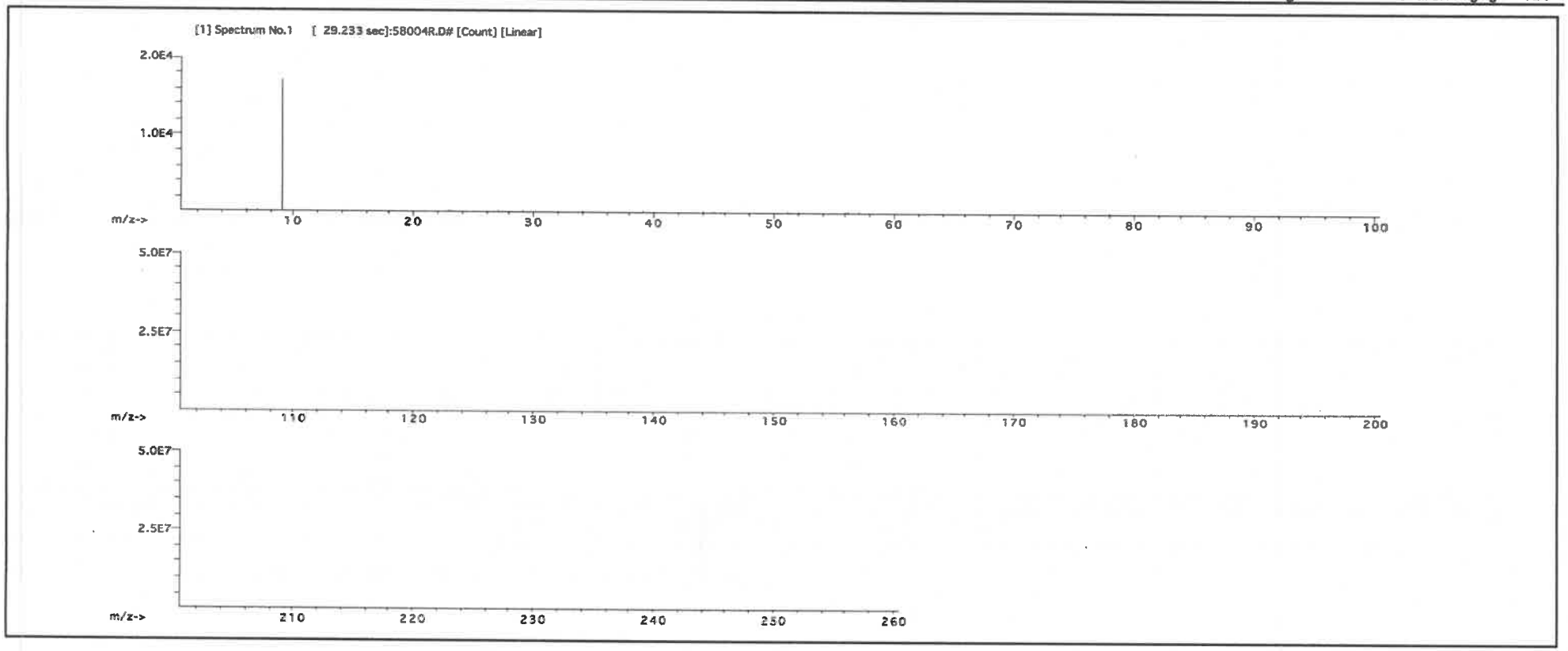
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

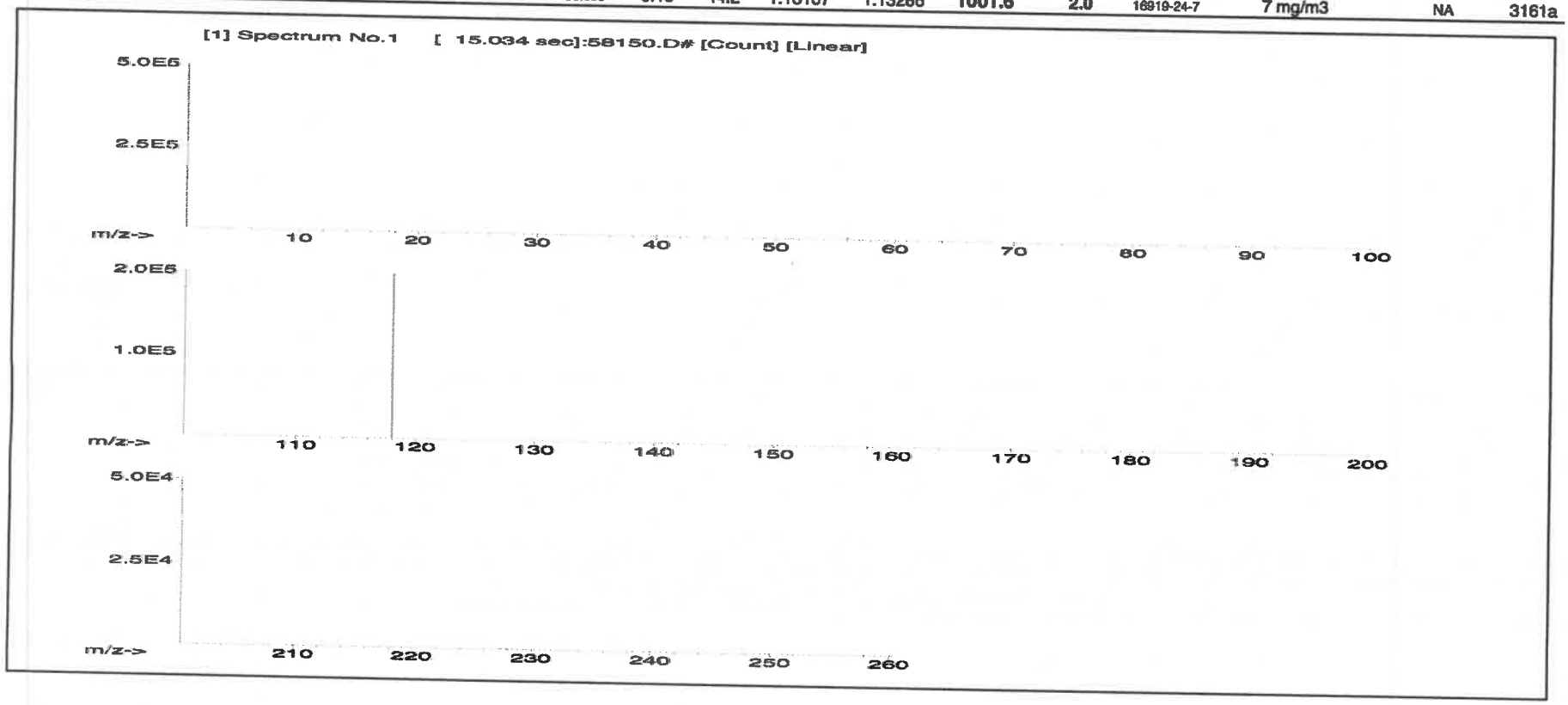
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R: 02/09/24 IM5800 BH

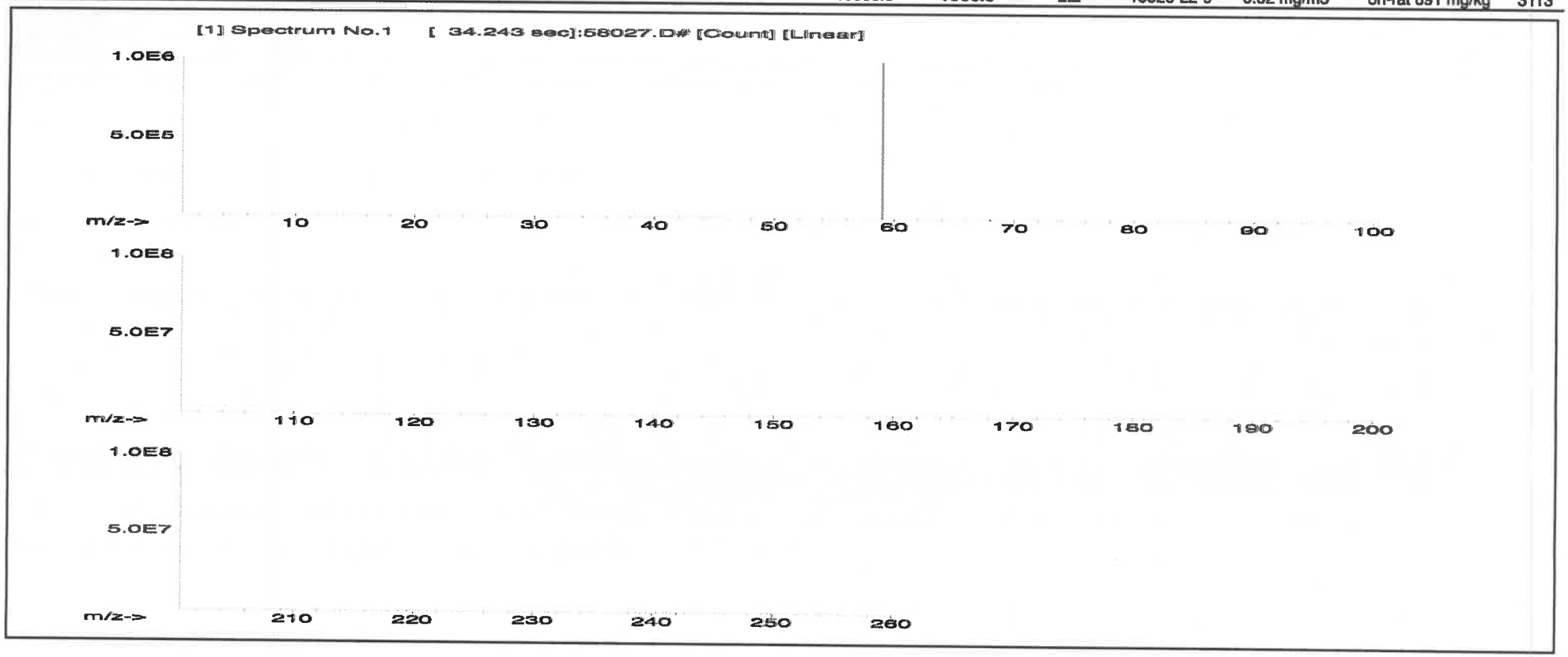
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**				
		2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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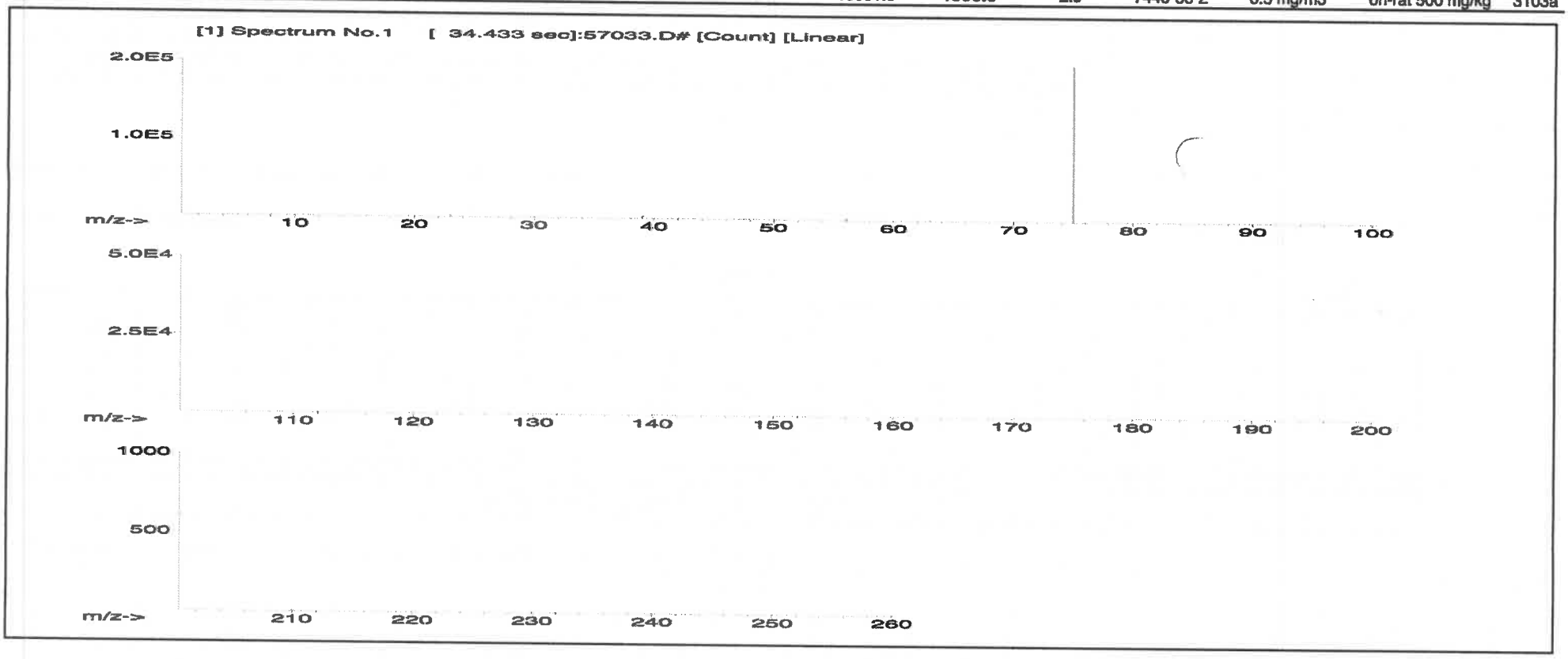
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R1 02/09/24. M58165

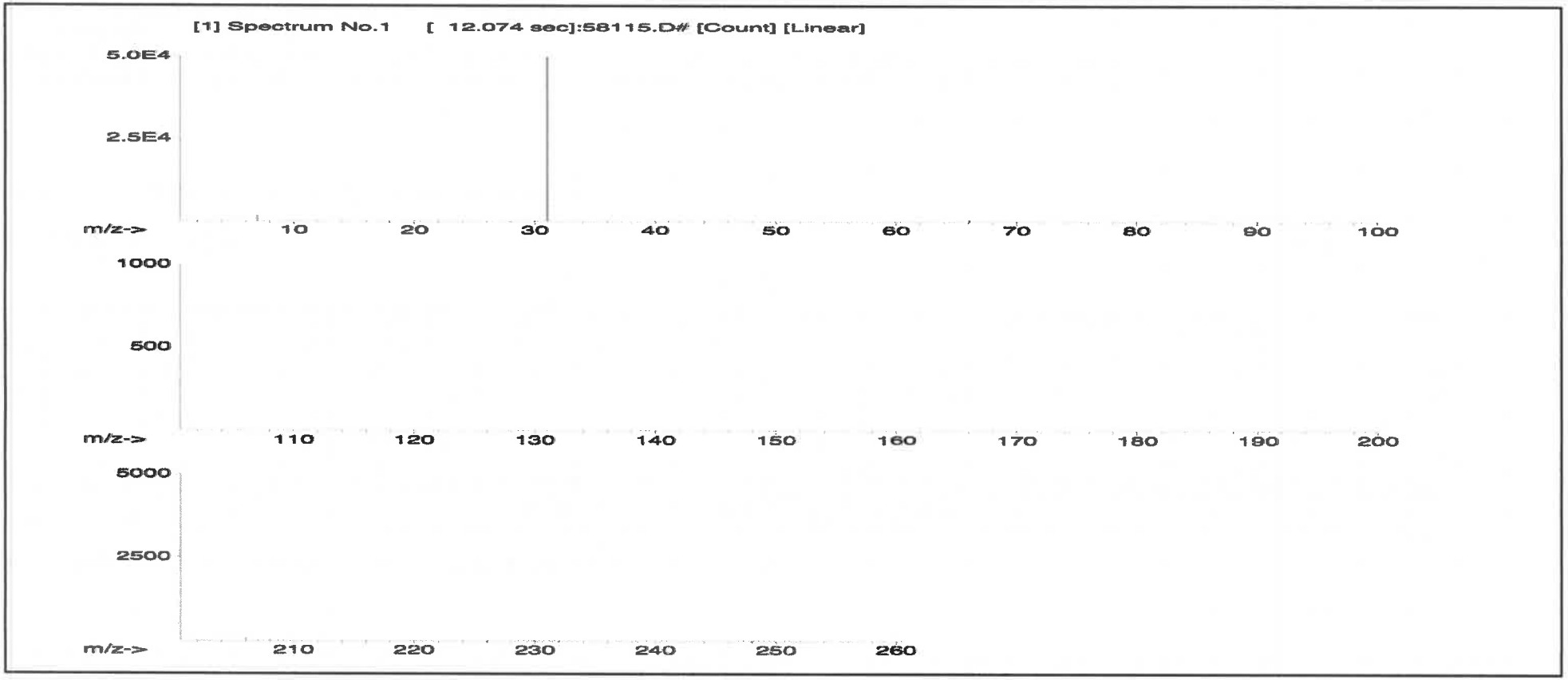
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CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5816

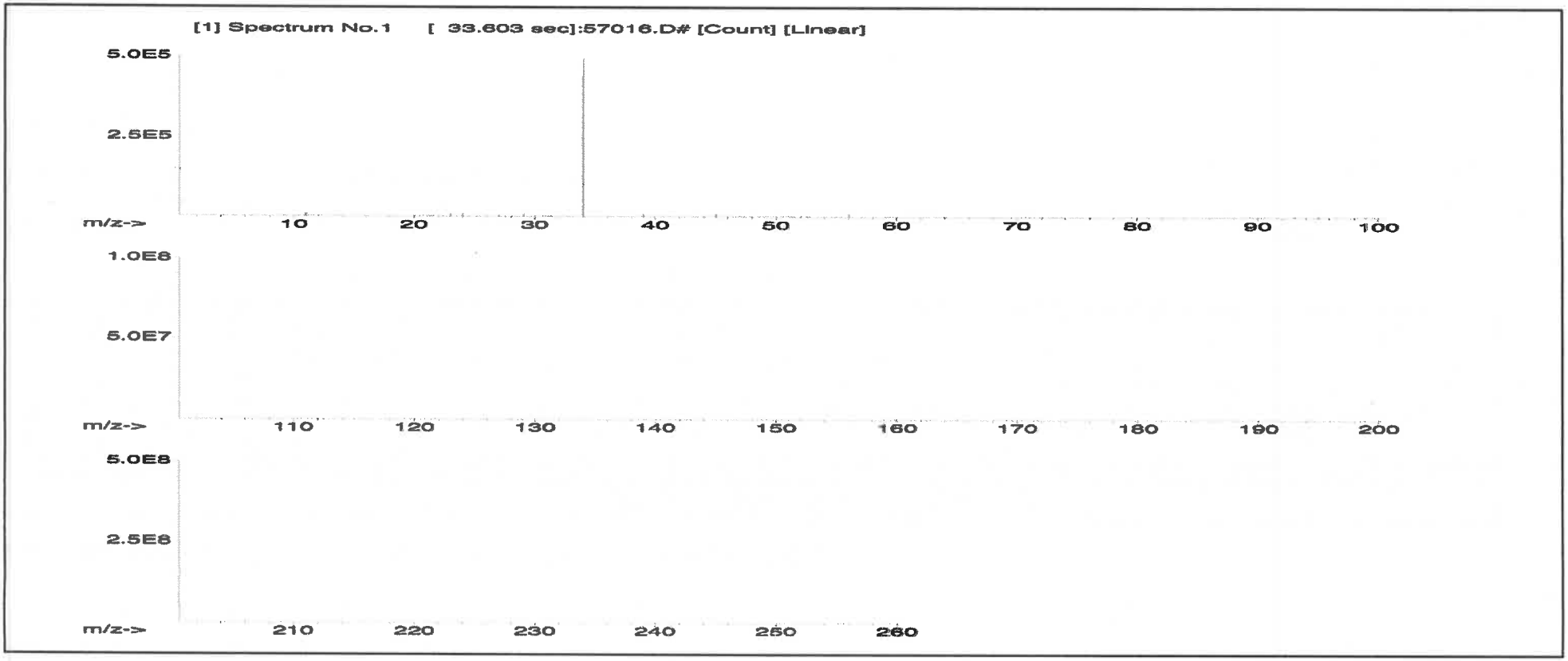
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CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5817

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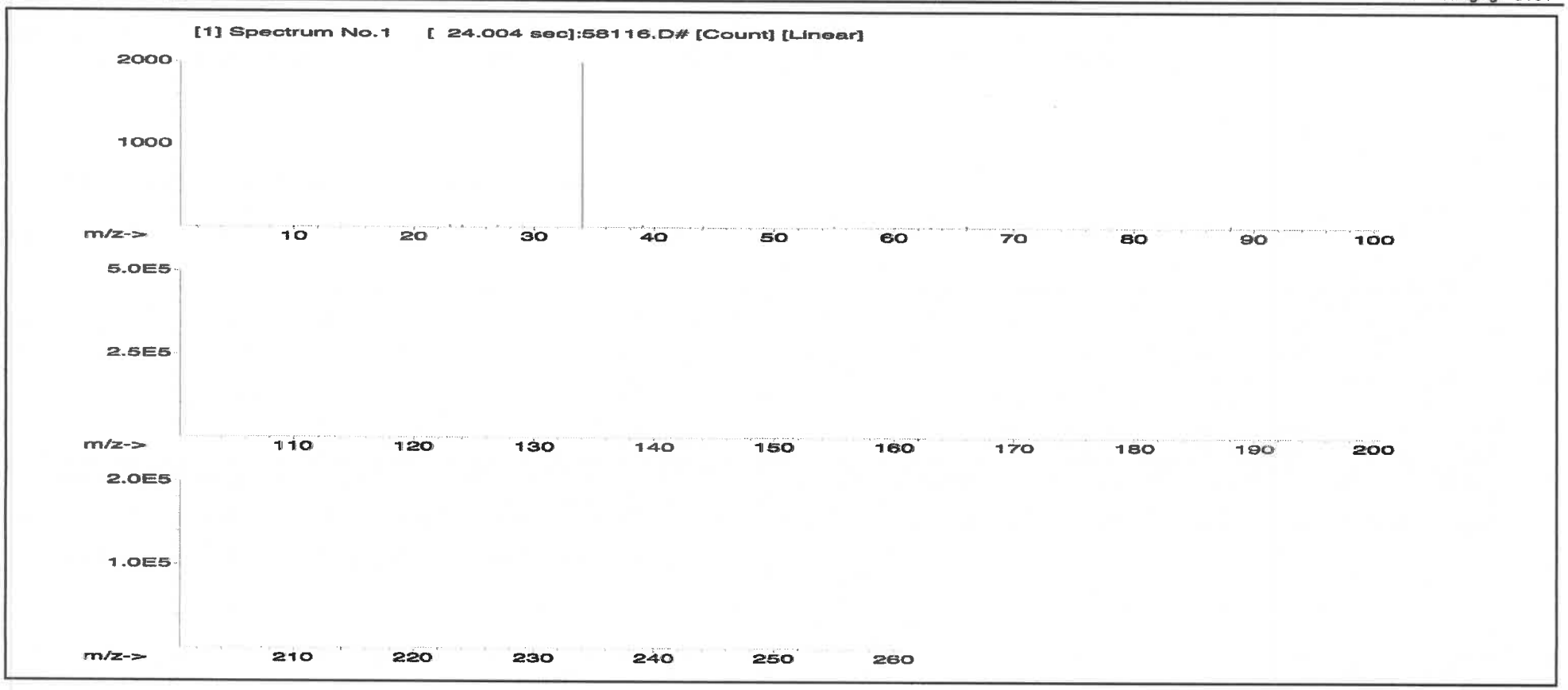
CERTIFIED WEIGHT REPORT:

Part Number:	**57116**			
Lot Number:	**071123**	**Solvent:**	071123	ASTM Type 1 Water
Description:	**Sulfur (S)**			
Expiration Date:	071126			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty	

Lot #

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M.5818

Lot #

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CERTIFIED WEIGHT REPORT:

Part Number: 57014
Lot Number: 122023
Description: Silicon (Si)

Expiration Date: 122026
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48 ± 0.058 Flask Uncertainty

Solvent: 24002546 Nitric Acid

2% 40.0 (mL) Nitric Acid

5E-05 Balance Uncertainty

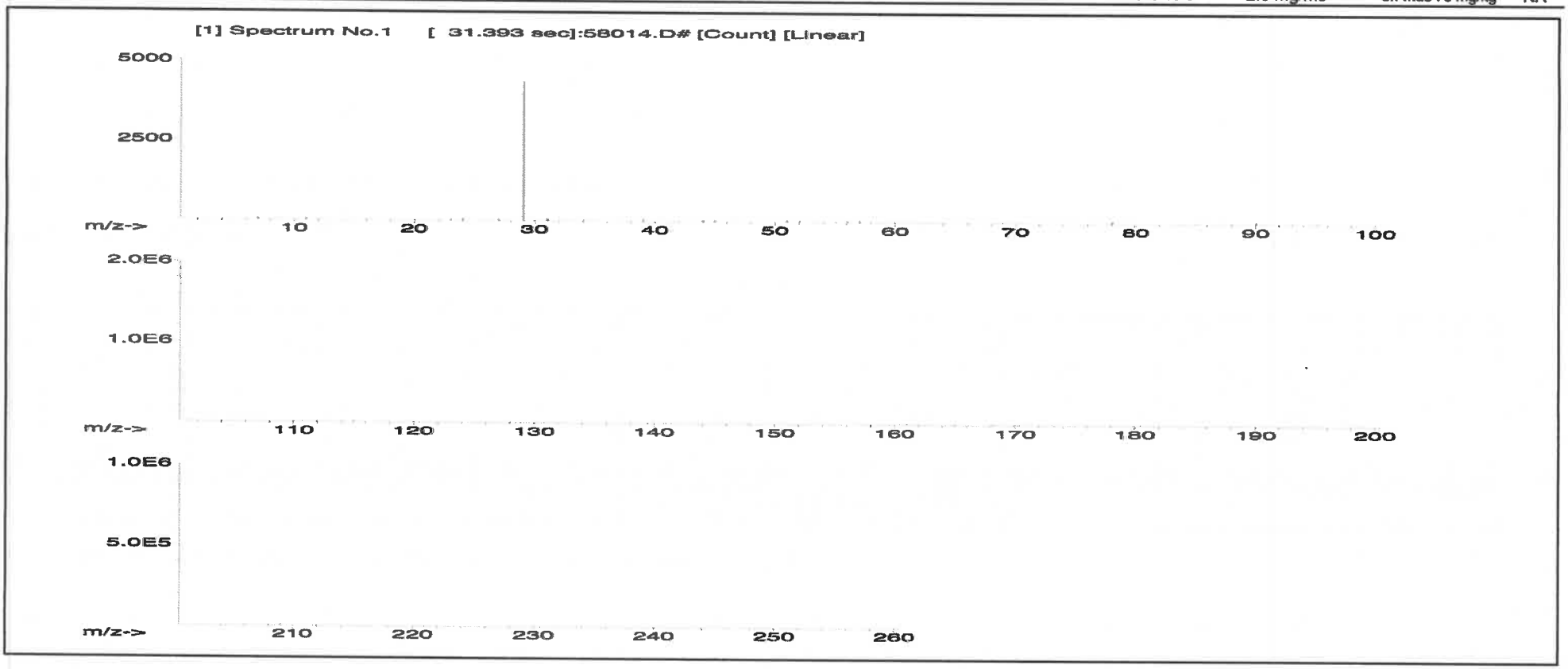
Aleah O'Brady

Formulated By: Aleah O'Brady 122023

Pedro Rentas

Reviewed By: Pedro L. Rentas 122023

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorosilicate (Si)	IN009	SID082022A1	1000	99.999	0.10	14.4	13.8854	13.8855	**1000.0**	**2.0**	16919-19-0	2.5 mg/m3	orl-mus 70 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5819

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

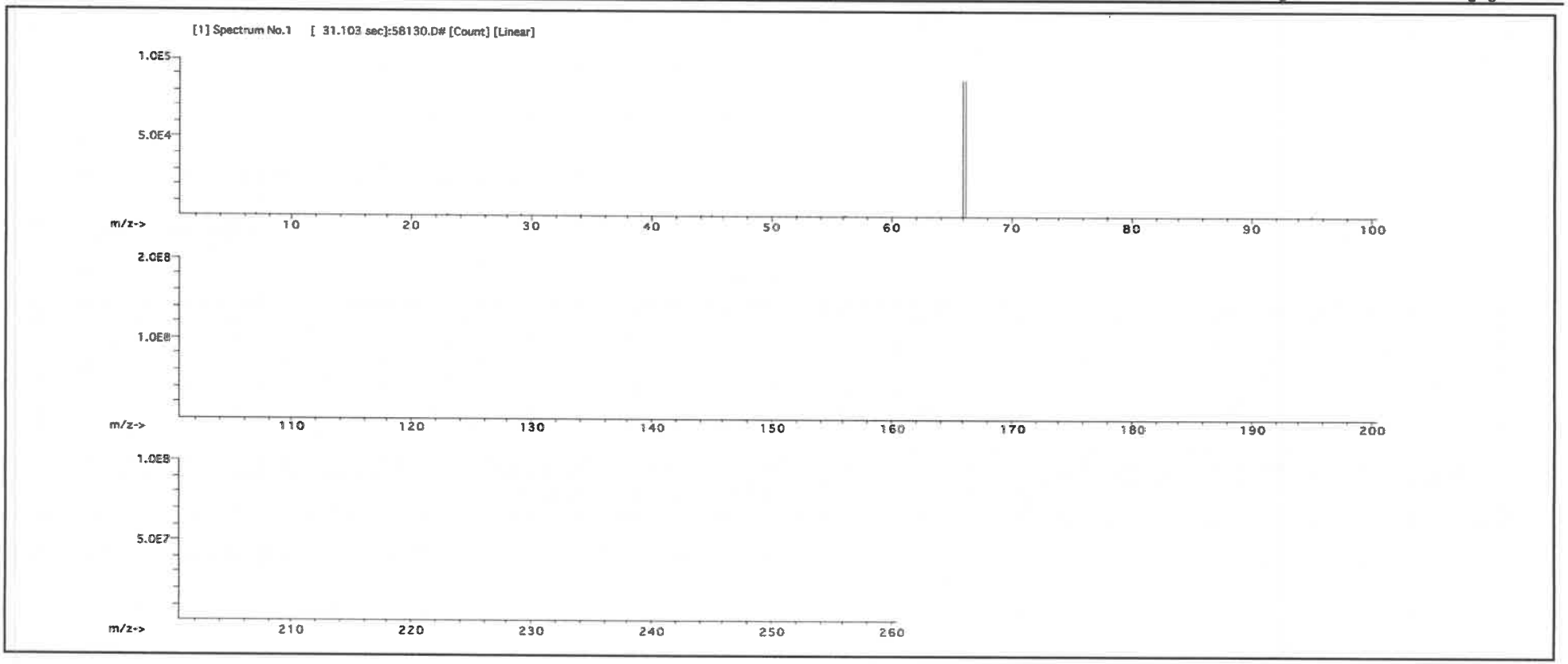
Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

		Lot #		
Solvent:	24002546	Nitric Acid		
2%	60.0 (mL)	Nitric Acid		
			5E-05	Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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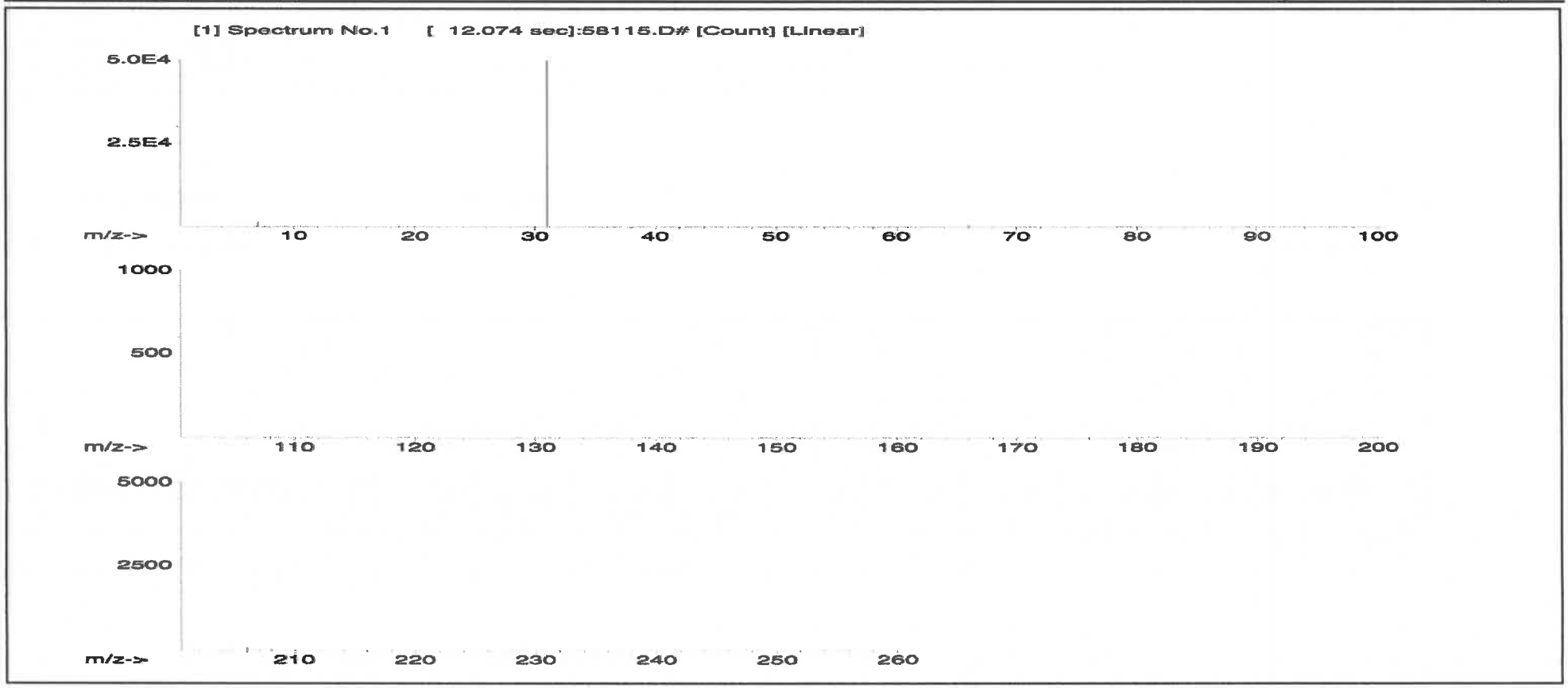
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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

M5960 KK R. 6/11/24

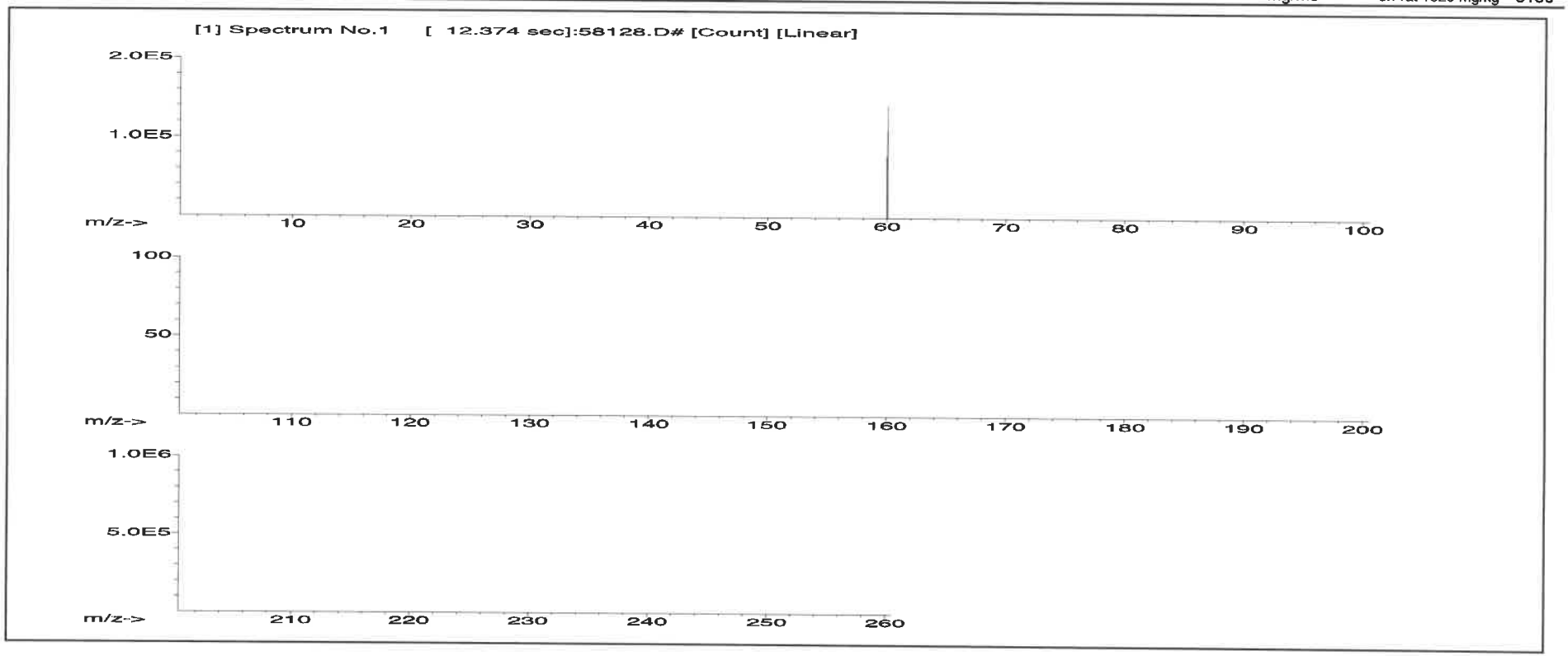
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57028**		**Lot #**		
Lot Number:	**041124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Nickel (Ni)**				
		2%	5.0 (mL)	Nitric Acid	
Expiration Date:	041127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	249.85	0.002	Flask Uncertainty		

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5962 R! 06/14/24.

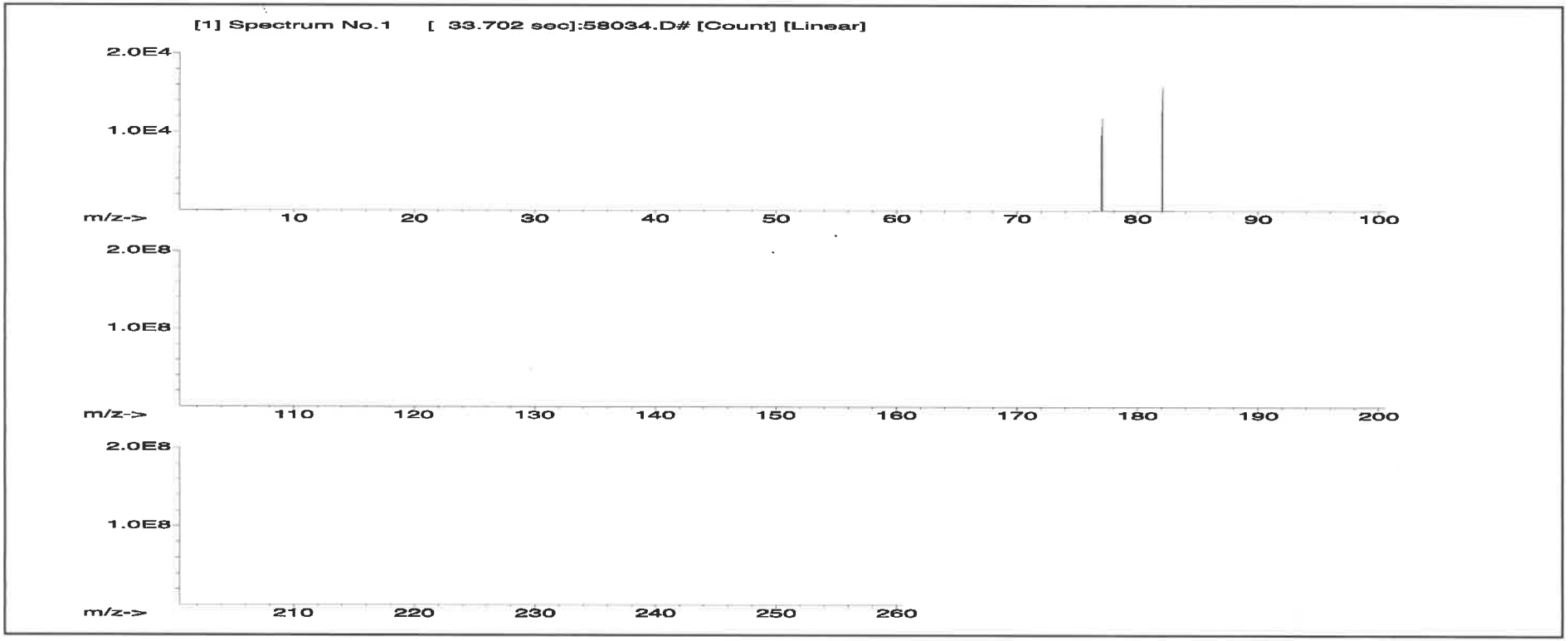
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

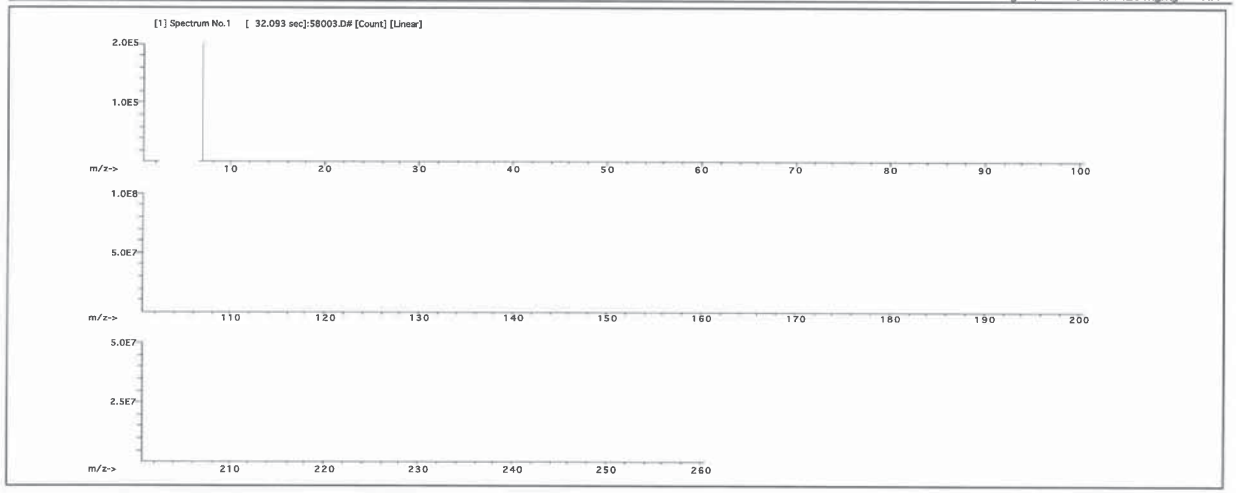
		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito

Formulated By: Giovanni Esposito 062124

Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

M5976, M5977
R: 02/22/24

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M5978, M5979

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Certificate of Analysis

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO_3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(\bar{x}_i)$

$\bar{x}_i$ = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = (\Sigma(w_i)^2\,(u_{char\ i})^2)^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (\bar{x}_a)\ (u_{char\ a})$

$\bar{x}_a$ = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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

Certified Reference Material CRM

45982 R: 6/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

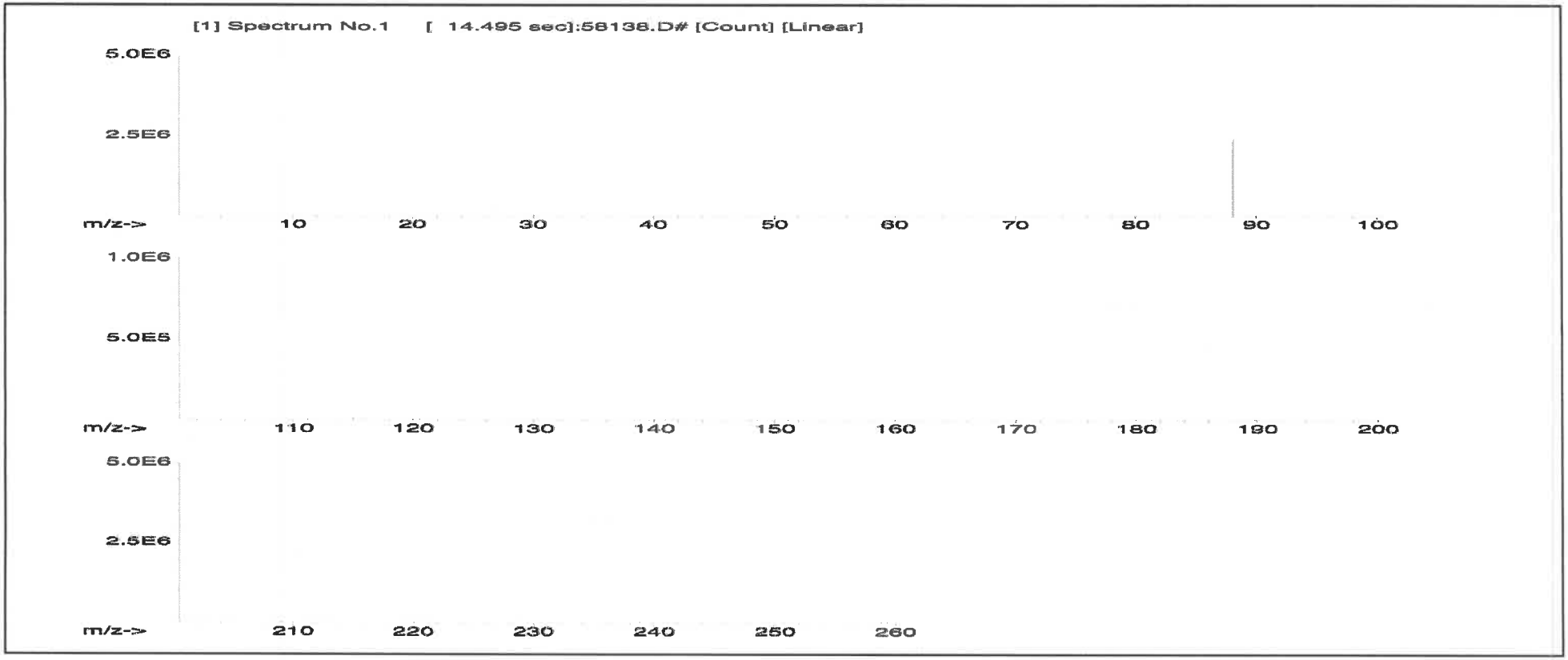
Part Number: 57038
Lot Number: 031524
Description: Strontium (Sr)

Expiration Date: 031527
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85502	**1000.1**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-1
Lot Number:	T2-MEB721963
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Manganese, Nickel, Vanadium, Zinc, Cobalt, 250 µg/mL ea: Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium, Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Chromium, Cr	200.0 ± 1.1 µg/mL
Cobalt, Co	500.0 ± 2.4 µg/mL	Copper, Cu	250.0 ± 1.0 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Silver, Ag	50.00 ± 0.22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.070 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

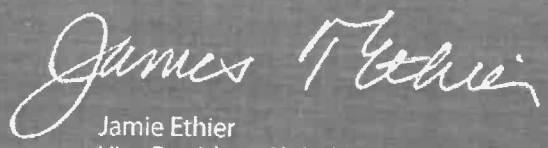
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

M6125 Receive -> 11/22/24

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

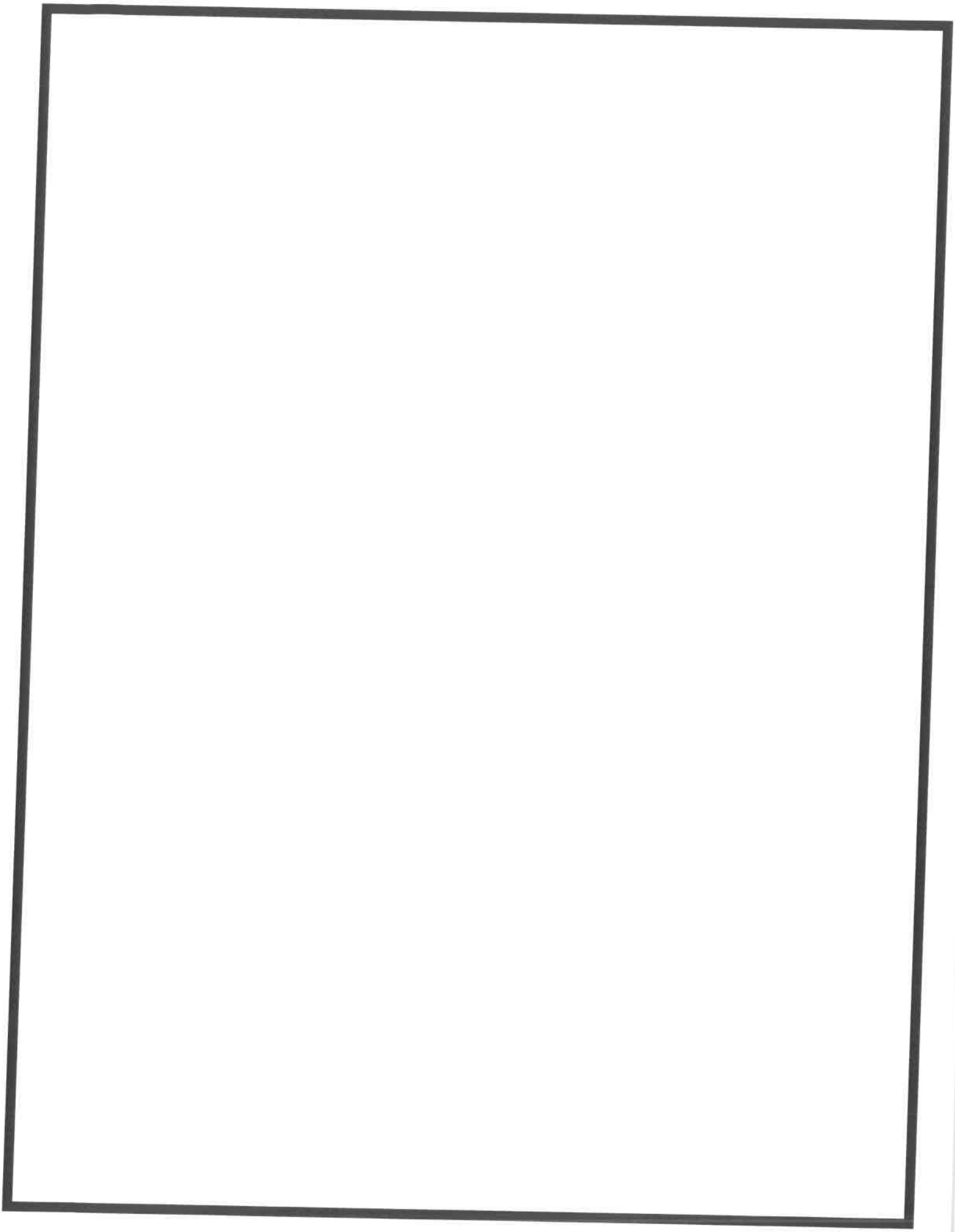
Office and Plant
299 Cedar Lane
Fairless Hills, PA 19030

Phone: 215-295-5006
Fax: 215-295-0781

Hydrogen Peroxide 30%, ACS

Reagent Grade

SPECIFICATION	MAXIMUM LIMITS
Appearance	Colorless and free from suspended matter or sediment
Assay	29-32%
Color (APHA)	10
Residue after Evaporation	0.002%
Titratable Acid	0.0006 meq/g
Chloride (Cl)	3 ppm
Nitrate (NO_3)	2 ppm
Phosphate	2 ppm
Sulfate (SO_4)	5 ppm
Ammonium (NH_4)	5 ppm
Heavy Metals (as Pb)	1 ppm
Iron (Fe)	0.5 ppm



Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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

Certified Reference Material CRM

R: 01/03/24 M5806, M5807

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

Expiration Date: 122226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

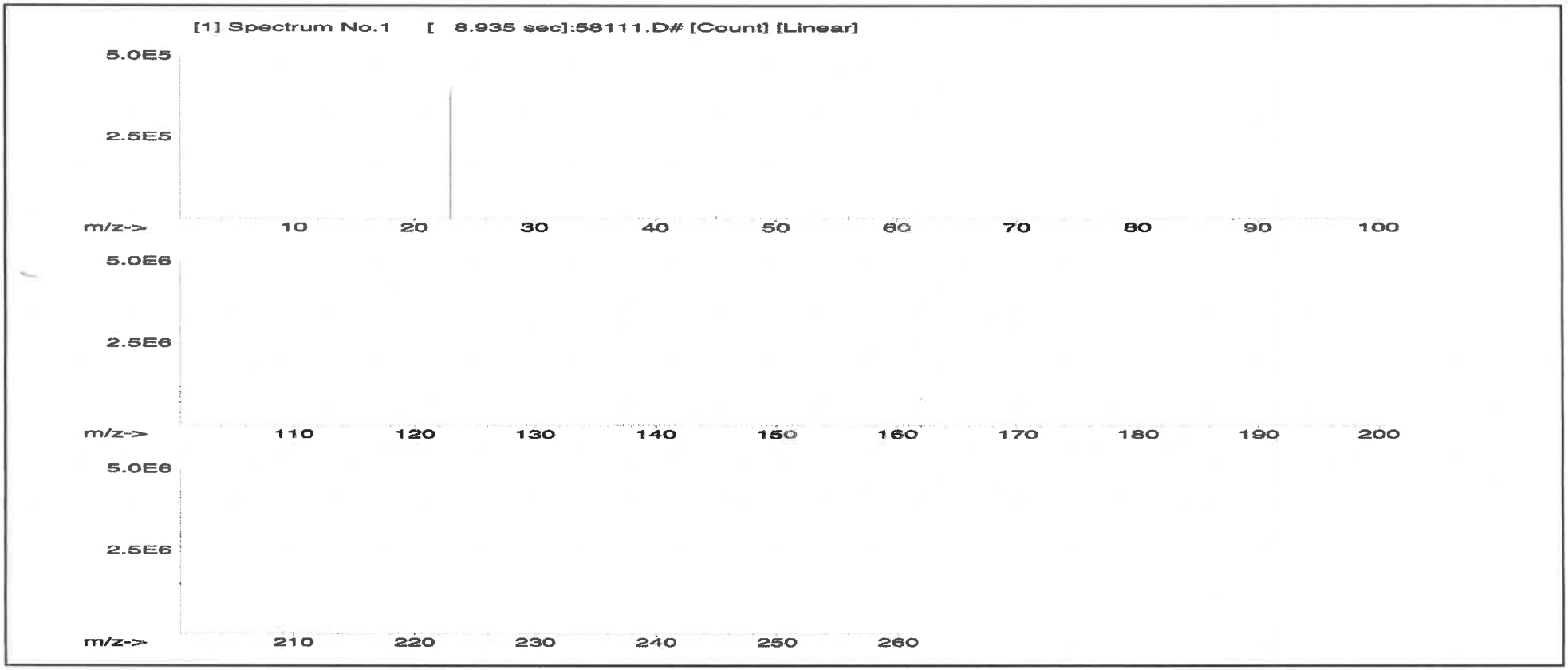
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 01/03/24 M5802, M5803

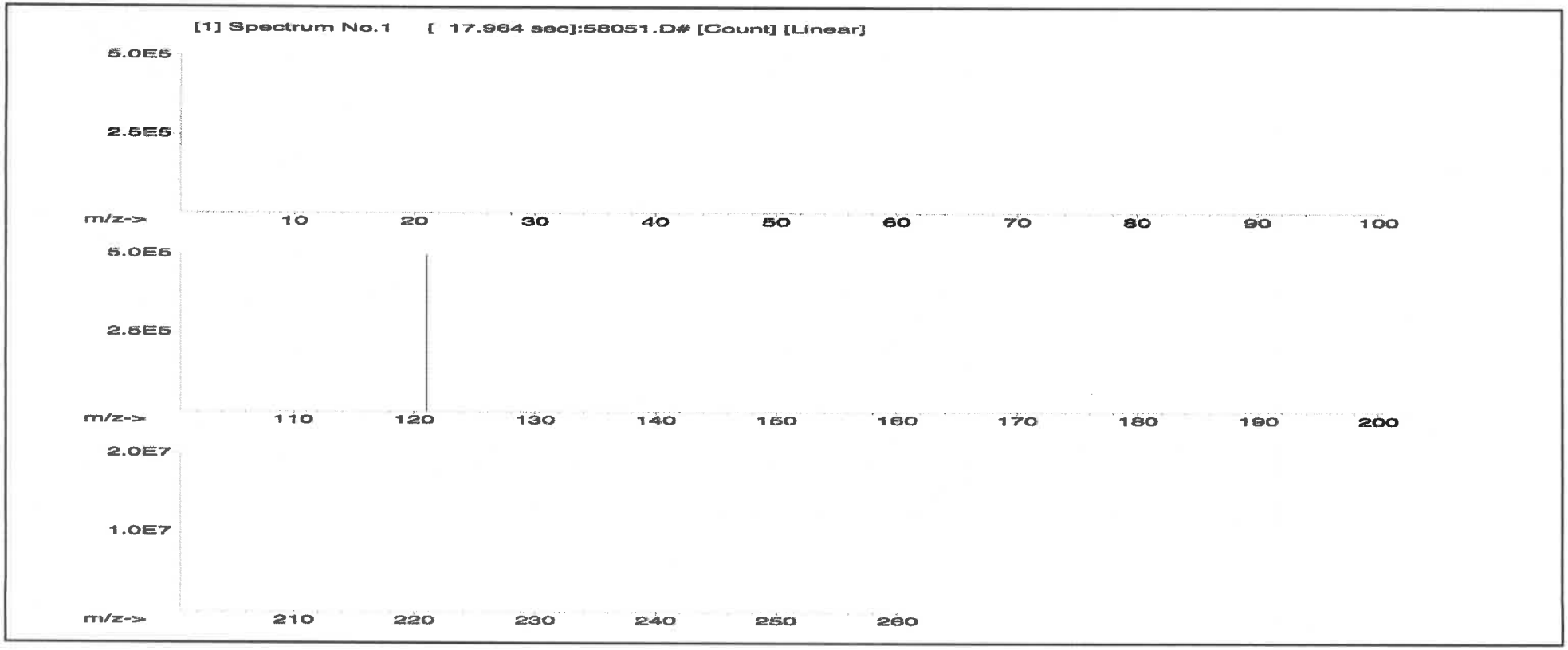
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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

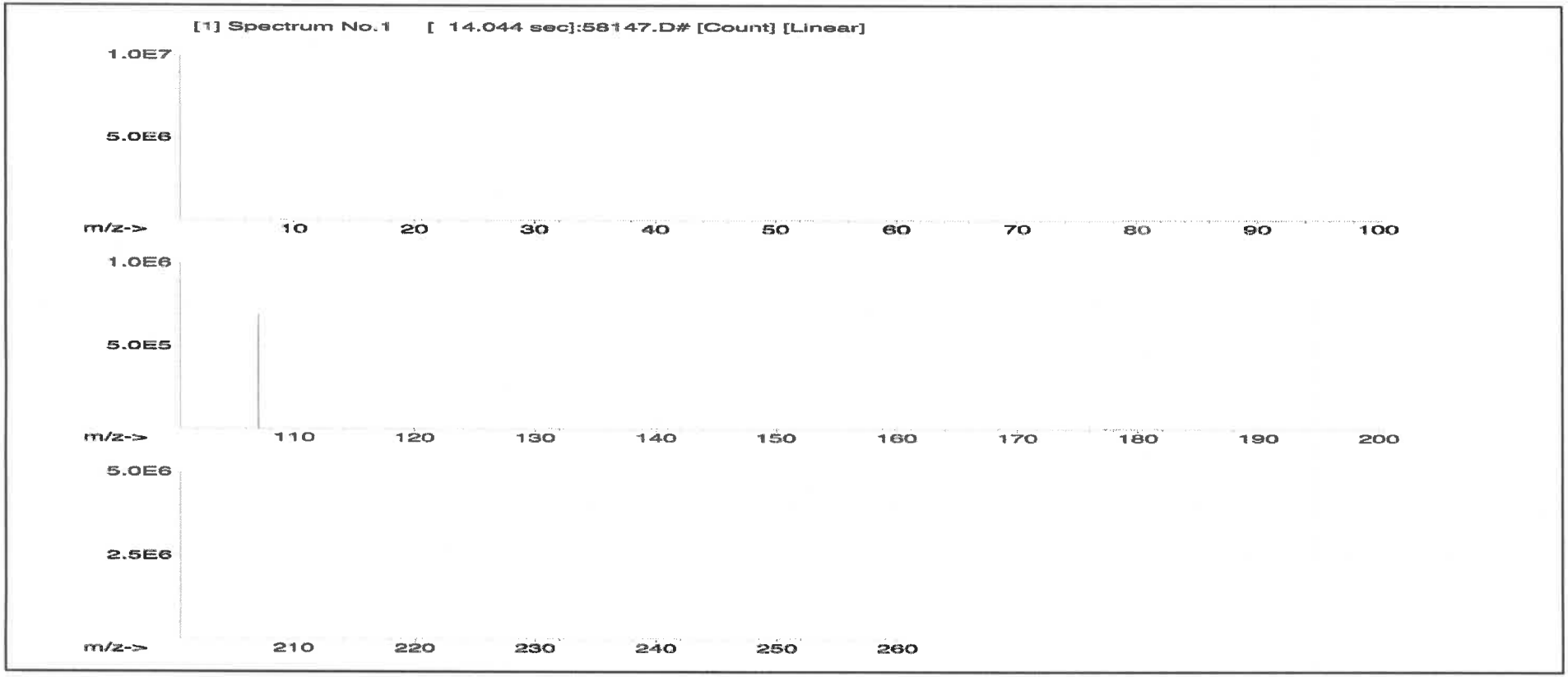
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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**			**Lot #**	
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**				
		2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
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Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

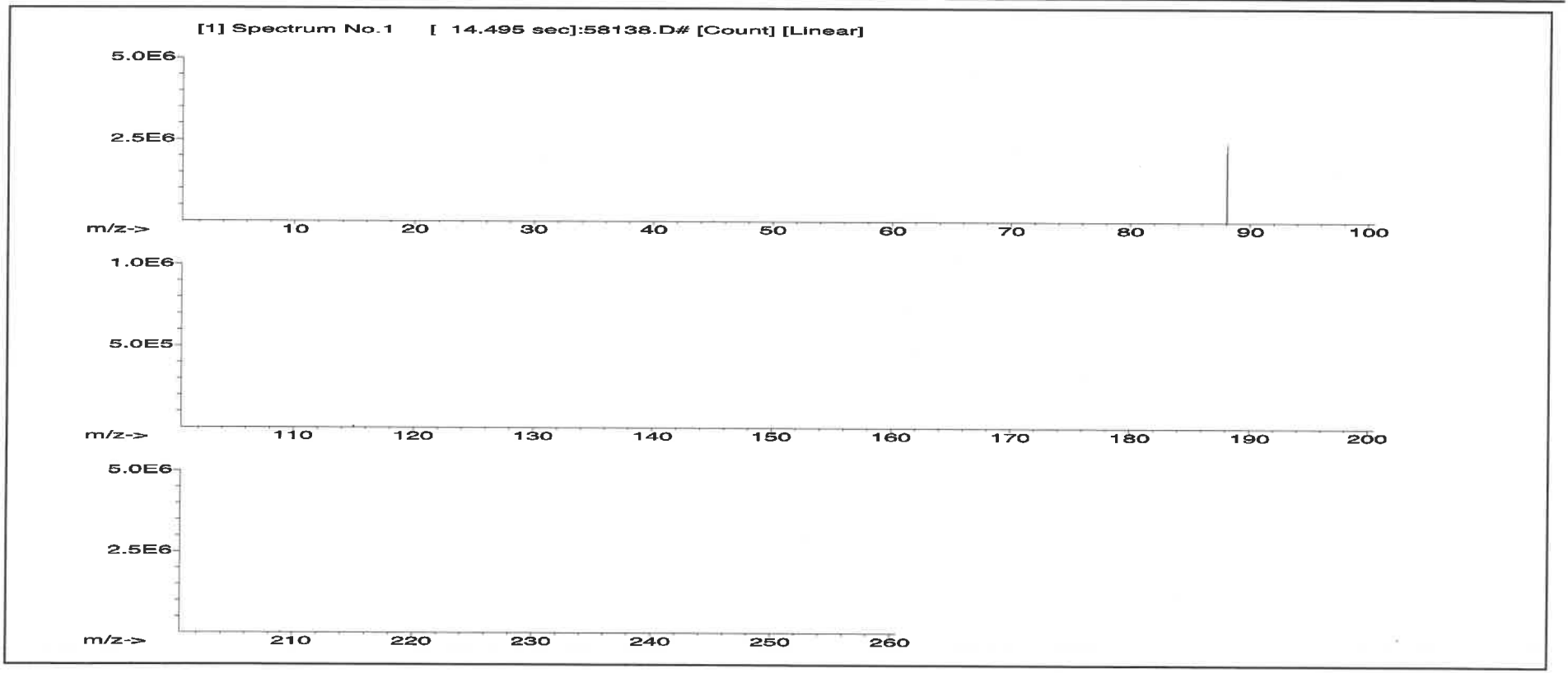
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**56138**		**Lot #**		
Lot Number:	**082922**	**Solvent:**	20510011	Nitric Acid	
Description:	**Strontium (Sr)**				
		2%	20.0 (mL)	Nitric Acid	
Expiration Date:	082925				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1000.12	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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M6023

R ! 8/5/24

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CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

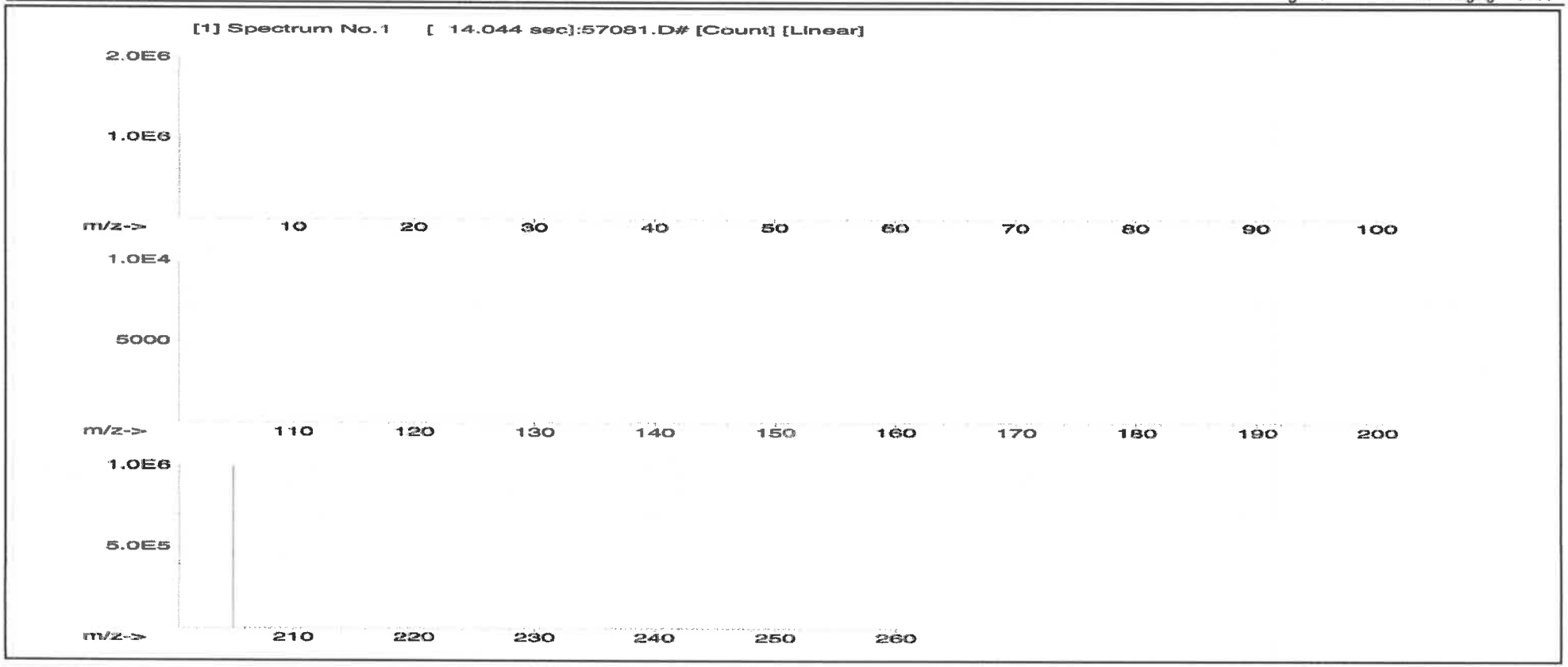
Aleah O'Brady

Formulated By:	Aleah O'Brady	062724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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Certified Reference Material CRM

M6021

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AR-1539 Certificate Number
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Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**			
Description:	**Vanadium (V)**	24002546	Nitric Acid	
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

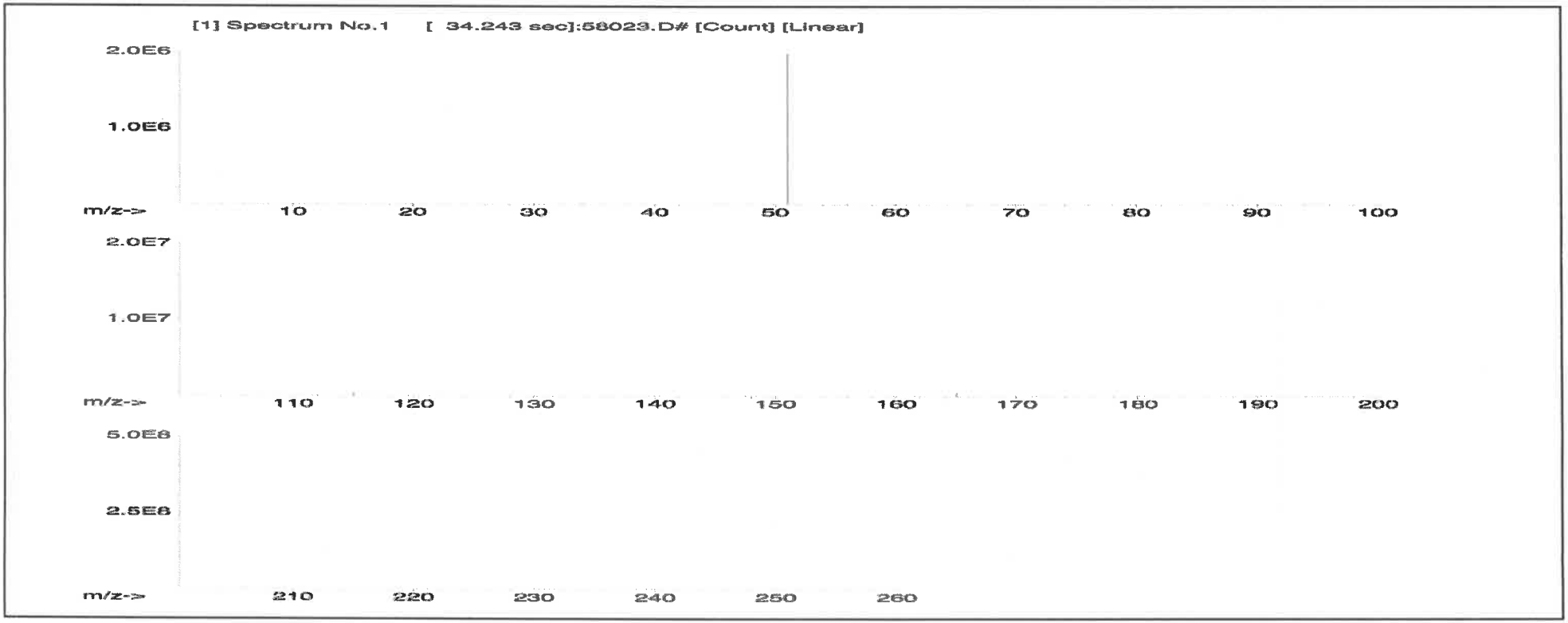
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

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Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165922

SOP ID : M3050B-Digestion-20, MSFAM01.1-Trace Metals-2

SDG No : MBHMN6

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 12/30/2024 **Time :** 14:30 **Temp :** 96 °C

End Digest Date: 12/30/2024 **Time :** 16:35 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #3

Dig Technician Signature: SJD.

Supervisor Signature: MR

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSS	1.00	MP83506
Spike Sol 6	1.00	MP83512
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
1:1 HNO3	10.00	MP83498
Conc. HNO3	5.00	M6126
30% H2O2	3.00	M6125
Conc. HCL	10.00	M6121
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #3 CELL #35 : 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/30/24 17:35	SJD. met digestion	MR - met lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165922

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P5198-01	MBHMN6	N/A	1.28	100	Brown	Yellow	Medium	N/A	N/A	1
P5198-02	MBHMN7	N/A	1.21	100	Brown	Yellow	Medium	N/A	N/A	2
P5198-03	MBHMN8	N/A	1.22	100	Brown	Yellow	Medium	N/A	N/A	3
P5198-04	MBHMN9	N/A	1.30	100	Brown	Yellow	Medium	N/A	N/A	4
P5198-05	MBHMP0	N/A	1.45	100	Brown	Yellow	Medium	N/A	N/A	5
P5198-06	MBHMP0D	N/A	1.33	100	Brown	Yellow	Medium	N/A	N/A	6
P5198-07	MBHMP0S	N/A	1.28	100	Brown	Yellow	Medium	N/A	MP83512	7
P5198-08	MBHMP1	N/A	1.14	100	Brown	Yellow	Medium	N/A	N/A	8
P5198-09	MBHMP2	N/A	1.29	100	Brown	Yellow	Medium	N/A	N/A	9
P5198-10	MBHMP3	N/A	1.46	100	Brown	Yellow	Medium	N/A	N/A	10
P5198-11	MBHMP4	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	11
P5198-12	MBHMP5	N/A	1.12	100	Brown	Yellow	Medium	N/A	N/A	12
P5198-13	MBHMW0	N/A	1.43	100	Brown	Yellow	Medium	N/A	N/A	13
P5198-14	MBHMW1	N/A	1.15	100	Brown	Yellow	Medium	N/A	N/A	14
P5198-15	MBHMW2	N/A	1.14	100	Brown	Yellow	Medium	N/A	N/A	15
P5198-16	MBHMW3	N/A	1.22	100	Brown	Yellow	Medium	N/A	N/A	16
P5198-17	MBHMW4	N/A	1.45	100	Brown	Yellow	Medium	N/A	N/A	17
P5198-18	MBHMW8	N/A	1.44	100	Brown	Yellow	Medium	N/A	N/A	18
P5198-19	MBHMW9	N/A	1.40	100	Brown	Yellow	Medium	N/A	N/A	19
PB165922BL	PBS922	N/A	1.00	100	Colorless	Colorless	Fine	N/A	N/A	20
PB165922BS	LCS922	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP83506	21

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134223

Review By	Sarabjit Jaswal	Review On	1/10/2025 12:20:23 PM
Supervise By	Mohan Bera	Supervise On	1/12/2025 8:52:46 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/09/25 15:24		Kareem	OK
2	S1	S01	CAL2	01/09/25 15:28		Kareem	OK
3	S2	S02	CAL3	01/09/25 15:32		Kareem	OK
4	S3	S03	CAL4	01/09/25 15:36		Kareem	OK
5	S4	S04	CAL5	01/09/25 15:40		Kareem	OK
6	S5	S05	CAL6	01/09/25 15:43		Kareem	OK
7	S6	S06	CAL7	01/09/25 15:47		Kareem	OK
8	ICV056	ICV056	ICV	01/09/25 16:16	Inst. paused for calibration review	Kareem	OK
9	ICB056	ICB056	ICB	01/09/25 16:20		Kareem	OK
10	ICSA056	ICSA056	ICSA	01/09/25 16:24		Kareem	OK
11	ICSAB056	ICSAB056	ICSAB	01/09/25 16:28		Kareem	OK
12	CCV138	CCV138	CCV	01/09/25 16:32		Kareem	OK
13	CCB138	CCB138	CCB	01/09/25 16:36		Kareem	OK
14	PB165190BL	PBW190	MB	01/09/25 16:40	Not use	Kareem	Not Ok
15	PB165190BS	LCS190	LCS	01/09/25 16:44	Not use	Kareem	Not Ok
16	PB165909BL	PBS909	MB	01/09/25 16:48		Kareem	OK
17	PB165909BS	LCS909	LCS	01/09/25 16:52		Kareem	OK
18	PB165921BL	PBS921	MB	01/09/25 16:57		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134223

Review By	Sarabjit Jaswal	Review On	1/10/2025 12:20:23 PM
Supervise By	Mohan Bera	Supervise On	1/12/2025 8:52:46 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

19	PB165920BL	PBS920	MB	01/09/25 17:05		Kareem	OK
20	PB165920BS	LCS920	LCS	01/09/25 17:17		Kareem	OK
21	P5207-13	MBHN39	SAM	01/09/25 17:25		Kareem	OK
22	PB165921BS	LCS921	LCS	01/09/25 17:29		Kareem	OK
23	P5207-14	MBHN39D	DUP	01/09/25 17:33		Kareem	OK
24	P5207-13L	MBHN39L	SD	01/09/25 17:37		Kareem	OK
25	P5207-15	MBHN39S	MS	01/09/25 17:41	MS fail for Cu (910.47 ppb) & Ag,Tl (Below RL)	Kareem	OK
26	P5198-05	MBHMP0	SAM	01/09/25 17:44		Kareem	OK
27	P5198-06	MBHMP0D	DUP	01/09/25 17:48		Kareem	OK
28	P5198-05L	MBHMP0L	SD	01/09/25 17:52		Kareem	OK
29	P5198-07	MBHMP0S	MS	01/09/25 17:56	MS fail for As (164.23 ppb), Se (115.53 ppb) & Sb,Ag,Tl (Below RL)	Kareem	OK
30	P5202-10	MBHNG5	SAM	01/09/25 18:00	Ca high	Kareem	Dilution
31	P5202-11	MBHNG5D	DUP	01/09/25 18:03	Ca high	Kareem	Dilution
32	P5202-10L	MBHNG5L	SD	01/09/25 18:07	Ca high	Kareem	Dilution
33	P5202-12	MBHNG5S	MS	01/09/25 18:11	Ca high, MS fail for Zn (2757.52 ppb) & Ag (Below RL)	Kareem	Dilution
34	CCV139	CCV139	CCV	01/09/25 18:15		Kareem	OK
35	CCB139	CCB139	CCB	01/09/25 18:18		Kareem	OK
36	P5203-18	MBHNC1	SAM	01/09/25 18:22		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134223

Review By	Sarabjit Jaswal	Review On	1/10/2025 12:20:23 PM
Supervise By	Mohan Bera	Supervise On	1/12/2025 8:52:46 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

37	P5203-19	MBHNC1D	DUP	01/09/25 18:26		Kareem	OK
38	P5203-18L	MBHNC1L	SD	01/09/25 18:30		Kareem	OK
39	P5203-20	MBHNC1S	MS	01/09/25 18:34	MS fail for Ag (Below RL)	Kareem	OK
40	P5207-01	MBHMZ9	SAM	01/09/25 18:38		Kareem	OK
41	P5207-02	MBHN00	SAM	01/09/25 18:41		Kareem	OK
42	P5207-03	MBHN01	SAM	01/09/25 18:45		Kareem	OK
43	P5207-04	MBHN02	SAM	01/09/25 18:49		Kareem	OK
44	P5207-05	MBHN03	SAM	01/09/25 18:53		Kareem	OK
45	P5207-06	MBHN04	SAM	01/09/25 18:56		Kareem	OK
46	P5207-07	MBHN05	SAM	01/09/25 19:00		Kareem	OK
47	P5207-08	MBHN34	SAM	01/09/25 19:04		Kareem	OK
48	P5207-09	MBHN35	SAM	01/09/25 19:08		Kareem	OK
49	P5207-10	MBHN36	SAM	01/09/25 19:11		Kareem	OK
50	P5207-11	MBHN37	SAM	01/09/25 19:15	Not use	Kareem	Not Ok
51	P5207-12	MBHN38	SAM	01/09/25 19:19	Ca high	Kareem	Dilution
52	P5207-16	MBHN54	SAM	01/09/25 19:23		Kareem	OK
53	P5207-17	MBHN55	SAM	01/09/25 19:27		Kareem	OK
54	P5207-18	MBHN56	SAM	01/09/25 19:30		Kareem	OK
55	P5207-19	MBHN57	SAM	01/09/25 19:34		Kareem	OK
56	CCV140	CCV140	CCV	01/09/25 19:38		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134223

Review By	Sarabjit Jaswal	Review On	1/10/2025 12:20:23 PM
Supervise By	Mohan Bera	Supervise On	1/12/2025 8:52:46 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

57	CCB140	CCB140	CCB	01/09/25 19:42		Kareem	OK
58	P5207-20	MBHN58	SAM	01/09/25 19:46		Kareem	OK
59	P5207-21	MBHN59	SAM	01/09/25 19:49		Kareem	OK
60	P5207-22	MBHN60	SAM	01/09/25 19:53	Ca high	Kareem	Dilution
61	P5198-01	MBHMN6	SAM	01/09/25 19:57		Kareem	OK
62	P5198-02	MBHMN7	SAM	01/09/25 20:01		Kareem	OK
63	P5198-03	MBHMN8	SAM	01/09/25 20:05		Kareem	OK
64	P5198-04	MBHMN9	SAM	01/09/25 20:08		Kareem	OK
65	P5198-08	MBHMP1	SAM	01/09/25 20:12		Kareem	OK
66	P5198-09	MBHMP2	SAM	01/09/25 20:16	Ca high	Kareem	Dilution
67	P5198-10	MBHMP3	SAM	01/09/25 20:20		Kareem	OK
68	P5198-11	MBHMP4	SAM	01/09/25 20:24		Kareem	OK
69	P5198-12	MBHMP5	SAM	01/09/25 20:27	Mn high	Kareem	Dilution
70	P5198-13	MBHMW0	SAM	01/09/25 20:31		Kareem	OK
71	P5198-14	MBHMW1	SAM	01/09/25 20:35		Kareem	OK
72	P5198-15	MBHMW2	SAM	01/09/25 20:39		Kareem	OK
73	P5198-16	MBHMW3	SAM	01/09/25 20:42	Not use	Kareem	Not Ok
74	P5198-17	MBHMW4	SAM	01/09/25 20:46	Ca high	Kareem	Dilution
75	P5198-18	MBHMW8	SAM	01/09/25 20:50		Kareem	OK
76	P5198-19	MBHMW9	SAM	01/09/25 20:54		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134223

Review By	Sarabjit Jaswal	Review On	1/10/2025 12:20:23 PM
Supervise By	Mohan Bera	Supervise On	1/12/2025 8:52:46 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

77	P5202-01	MBHNE9	SAM	01/09/25 20:58		Kareem	OK
78	CCV141	CCV141	CCV	01/09/25 21:01		Kareem	OK
79	CCB141	CCB141	CCB	01/09/25 21:05		Kareem	OK
80	P5202-02	MBHNF7	SAM	01/09/25 21:09		Kareem	OK
81	P5202-03	MBHNF8	SAM	01/09/25 21:13		Kareem	OK
82	P5202-04	MBHNF9	SAM	01/09/25 21:17		Kareem	OK
83	P5202-05	MBHNG0	SAM	01/09/25 21:21		Kareem	OK
84	P5202-06	MBHNG1	SAM	01/09/25 21:24		Kareem	OK
85	P5202-07	MBHNG2	SAM	01/09/25 21:28		Kareem	OK
86	P5202-08	MBHNG3	SAM	01/09/25 21:32		Kareem	OK
87	P5202-09	MBHNG4	SAM	01/09/25 21:36		Kareem	OK
88	P5202-13	MBHNG6	SAM	01/09/25 21:39		Kareem	OK
89	P5202-14	MBHNG7	SAM	01/09/25 21:43		Kareem	OK
90	P5202-15	MBHNG8	SAM	01/09/25 21:47		Kareem	OK
91	P5202-16	MBHNG9	SAM	01/09/25 21:51		Kareem	OK
92	P5202-17	MBHNH0	SAM	01/09/25 21:54		Kareem	OK
93	P5202-18	MBHNJ5	SAM	01/09/25 21:58		Kareem	OK
94	P5202-19	MBHNJ6	SAM	01/09/25 22:02		Kareem	OK
95	P5203-01	MBHN27	SAM	01/09/25 22:06		Kareem	OK
96	P5203-02	MBHN28	SAM	01/09/25 22:10		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134223

Review By	Sarabjit Jaswal	Review On	1/10/2025 12:20:23 PM
Supervise By	Mohan Bera	Supervise On	1/12/2025 8:52:46 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

97	P5203-03	MBHN29	SAM	01/09/25 22:13		Kareem	OK
98	P5203-04	MBHN30	SAM	01/09/25 22:17		Kareem	OK
99	P5203-05	MBHN31	SAM	01/09/25 22:21		Kareem	OK
100	CCV142	CCV142	CCV	01/09/25 22:25		Kareem	OK
101	CCB142	CCB142	CCB	01/09/25 22:28		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134241

Review By	Mohan Bera	Review On	1/12/2025 8:53:42 PM
Supervise By	Sarabjit Jaswal	Supervise On	1/12/2025 8:54:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	MP83745,M5697
LCS Standard	
Chk Standard	MP83513,MP83514

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/10/25 11:09		Kareem	OK
2	S1	S01	CAL2	01/10/25 11:13		Kareem	OK
3	S2	S02	CAL3	01/10/25 11:17		Kareem	OK
4	S3	S03	CAL4	01/10/25 11:21		Kareem	OK
5	S4	S04	CAL5	01/10/25 11:25		Kareem	OK
6	S5	S05	CAL6	01/10/25 11:28		Kareem	OK
7	S6	S06	CAL7	01/10/25 11:32		Kareem	OK
8	ICV057	ICV057	ICV	01/10/25 13:45	Inst. paused for calibration review	Kareem	OK
9	ICB057	ICB057	ICB	01/10/25 13:50		Kareem	OK
10	ICSA057	ICSA057	ICSA	01/10/25 13:54		Kareem	OK
11	ICSAB057	ICSAB057	ICSAB	01/10/25 14:27	Inst. paused for review	Kareem	OK
12	CCV144	CCV144	CCV	01/10/25 14:41	Inst. paused for review	Kareem	OK
13	CCB144	CCB144	CCB	01/10/25 14:45		Kareem	OK
14	P5203-06	MBHN32	SAM	01/10/25 14:49		Kareem	OK
15	P5203-07	MBHN33	SAM	01/10/25 14:53		Kareem	OK
16	P5203-08	MBHN61	SAM	01/10/25 14:56		Kareem	OK
17	P5203-09	MBHN62	SAM	01/10/25 15:00		Kareem	OK
18	P5203-10	MBHN63	SAM	01/10/25 15:04		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134241

Review By	Mohan Bera	Review On	1/12/2025 8:53:42 PM
Supervise By	Sarabjit Jaswal	Supervise On	1/12/2025 8:54:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	MP83745,M5697
LCS Standard	
Chk Standard	MP83513,MP83514

19	P5203-11	MBHN95	SAM	01/10/25 15:22		Kareem	OK
20	P5203-12	MBHNB5	SAM	01/10/25 15:26		Kareem	OK
21	P5203-14	MBHNB7	SAM	01/10/25 15:34		Kareem	OK
22	P5203-15	MBHNB8	SAM	01/10/25 15:37		Kareem	OK
23	P5203-16	MBHNB9	SAM	01/10/25 15:41		Kareem	OK
24	P5203-17	MBHNC0	SAM	01/10/25 15:45		Kareem	OK
25	P5203-21	MBHND0	SAM	01/10/25 15:49		Kareem	OK
26	P5202-10DL	MBHNG5	SAM	01/10/25 15:52	2x for Ca	Kareem	Confirms
27	P5202-11DL	MBHNG5D	DUP	01/10/25 15:56	2x for Ca	Kareem	Confirms
28	P5202-10LDL	MBHNG5L	SD	01/10/25 16:00	10x for Ca	Kareem	Confirms
29	P5202-12DL	MBHNG5S	MS	01/10/25 16:04	2x for Ca	Kareem	Confirms
30	P5207-12DL	MBHN38	SAM	01/10/25 16:08	2x for Ca	Kareem	Confirms
31	P5207-22DL	MBHN60	SAM	01/10/25 16:11	2x for Ca	Kareem	Confirms
32	P5198-09DL	MBHMP2	SAM	01/10/25 16:15	2x for Ca	Kareem	Confirms
33	CCV145	CCV145	CCV	01/10/25 16:19		Kareem	OK
34	CCB145	CCB145	CCB	01/10/25 16:22		Kareem	OK
35	P5198-12DL	MBHMP5	SAM	01/10/25 16:26	5x for Mn	Kareem	Confirms
36	P5198-05A	MBHMP0A	PS	01/10/25 16:30	PS For As-0.0032ml m5801,Se-0.023ml mp83726,TL-0.05ml mp83745	Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134241

Review By	Mohan Bera	Review On	1/12/2025 8:53:42 PM
Supervise By	Sarabjit Jaswal	Supervise On	1/12/2025 8:54:07 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	MP83745,M5697
LCS Standard	
Chk Standard	MP83513,MP83514

37	P5202-10A	MBHNG5A	PS	01/10/25 16:34	PS for Zn, 0.055 - M5801-10 ml sample	Kareem	OK
38	P5203-18A	MBHNC1A	PS	01/10/25 16:38	NOT USE	Kareem	Not Ok
39	P5207-13A	MBHN39A	PS	01/10/25 16:42	PS for Cu-0.019ml m5697,TL-0.05ml mp83745	Kareem	OK
40	P5198-17DL	MBHMW4	SAM	01/10/25 16:45	5x for Ca	Kareem	Confirms
41	P5203-13	MBHNB6	SAM	01/10/25 17:13		Kareem	OK
42	CCV146	CCV146	CCV	01/10/25 17:19		Kareem	OK
43	CCB146	CCB146	CCB	01/10/25 17:23		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134256

Review By	Sarabjit Jaswal	Review On	1/13/2025 6:24:27 PM
Supervise By	Mohan Bera	Supervise On	1/13/2025 6:25:37 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/13/25 15:23		Kareem	OK
2	S1	S01	CAL2	01/13/25 15:27		Kareem	OK
3	S2	S02	CAL3	01/13/25 15:31		Kareem	OK
4	S3	S03	CAL4	01/13/25 15:35		Kareem	OK
5	S4	S04	CAL5	01/13/25 15:39		Kareem	OK
6	S5	S05	CAL6	01/13/25 15:42		Kareem	OK
7	S6	S06	CAL7	01/13/25 15:47		Kareem	OK
8	ICV058	ICV058	ICV	01/13/25 16:02	Instrument paused for calibration review	Kareem	OK
9	ICB058	ICB058	ICB	01/13/25 16:06		Kareem	OK
10	ICSA058	ICSA058	ICSA	01/13/25 16:10		Kareem	OK
11	ICSAB058	ICSAB058	ICSAB	01/13/25 16:30	Instrument paused for review	Kareem	OK
12	CCV147	CCV147	CCV	01/13/25 16:41	Instrument paused for review	Kareem	OK
13	CCB147	CCB147	CCB	01/13/25 16:44		Kareem	OK
14	PB165922BL	PBS922	MB	01/13/25 16:53		Kareem	OK
15	PB165910BL	PBS910	MB	01/13/25 17:01		Kareem	OK
16	PB165910BS	LCS910	LCS	01/13/25 17:05		Kareem	OK
17	P5207-11	MBHN37	SAM	01/13/25 17:09		Kareem	OK
18	P5198-16	MBHMW3	SAM	01/13/25 17:13		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134256

Review By	Sarabjit Jaswal	Review On	1/13/2025 6:24:27 PM
Supervise By	Mohan Bera	Supervise On	1/13/2025 6:25:37 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP83513,MP83514

19	PB165922BS	LCS922	LCS	01/13/25 17:17		Kareem	OK
20	CCV148	CCV148	CCV	01/13/25 17:21		Kareem	OK
21	CCB148	CCB148	CCB	01/13/25 17:24		Kareem	OK