



**Certificate of Analysis**  
**Work Order : VC182081**  
**[Report File No.: 0000030114]**

**Date:** July 13, 2018

**To: Jack Milton**  
**FIREWEED ZINC LTD**  
#1020-800 WEST PENDER ST  
VANCOUVER BC V6C 2V6

**P.O. No.:** FWZ18-SGS-001 / 307 samples  
**Project No.:** -  
**Samples:** 86  
**Received:** Jun 27, 2018  
**Pages:** Page 1 to 22  
(Inclusive of Cover Sheet)


**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
85	G_LOG02	Pre-preparation processing, sorting, logging, boxing
85	GE_MMI_M	Mobile Metal ION standard package/ICP-MS
85	GE_ISE15V	pH (soils/sediments)

**Storage: Pulp & Reject**

REJECT STORAGE : PAID STORE AFTER 90 DAYS

Certified By :

  
John Chiang  
QC Chemist

*SGS Minerals Services Geochemistry Vancouver conforms to the requirements of ISO/IEC 17025 for specific tests as listed on their scope of accreditation which can be found at <http://www.scc.ca/en/search/palcan/sgs>*

**Report Footer:**

L.N.R. = Listed not received  
n.a. = Not applicable

I.S. = Insufficient Sample  
-- = No result

\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted

Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Ag GE_MMI_M 0.5 ppb	Al GE_MMI_M 1 ppm	As GE_MMI_M 10 ppb	Au GE_MMI_M 0.1 ppb	Ba GE_MMI_M 10 ppb	Bi GE_MMI_M 0.5 ppb	Ca GE_MMI_M 2 ppm	Cd GE_MMI_M 1 ppb
C00049587	<0.5	1	<10	<0.1	630	<0.5	401	68
C00049588	5.1	103	360	0.2	3010	1.8	42	59
C00049589	27.7	117	460	0.3	5440	4.5	61	91
C00049590	17.9	84	70	0.1	2260	1.6	10	16
C00049591	2.3	73	80	<0.1	1130	0.6	117	174
C00049592	82.2	164	100	0.9	920	0.5	<2	16
C00049593	49.3	136	50	0.7	2730	<0.5	44	227
C00049594	103	326	1040	0.6	11200	6.3	9	7
C00049595	1.1	56	40	<0.1	1750	<0.5	131	77
C00049596	3.8	126	240	0.5	3420	2.3	13	36
C00049597	4.1	97	210	0.4	3670	3.4	32	162
C00049598	29.0	196	580	0.3	8410	4.0	13	187
C00049599	0.7	10	90	<0.1	1440	<0.5	260	29
C00049600	3.4	66	370	0.2	2900	3.0	20	16
C00049601	7.9	88	350	0.3	3300	3.2	29	15
C00049602	5.2	60	1240	0.7	4620	5.4	76	46
C00049603	4.2	79	260	0.3	4780	1.9	84	39
C00049604	27.3	98	280	0.6	16100	2.4	72	93
C00049605	2.8	44	40	0.1	10000	<0.5	75	161
C00049651	45.5	81	90	<0.1	820	2.5	8	7
C00049652	7.4	98	390	0.4	840	1.7	2	12
C00049653	90.1	164	250	0.2	2840	5.8	2	10
C00049654	30.6	184	460	0.6	3310	2.6	3	12
C00049655	31.8	204	520	0.7	3160	4.3	<2	20
C00049656	11.7	161	420	0.3	2390	2.4	<2	5
C00049657	79.3	183	430	0.1	2520	2.2	<2	6
C00049658	43.0	248	730	0.4	4640	2.6	3	11
C00049659	17.4	143	610	0.4	3130	2.5	2	5
C00049660	33.4	159	560	0.5	2990	2.3	<2	7
C00049661	109	217	450	0.3	3910	2.5	<2	8
C00049662	32.3	135	460	0.7	3220	1.9	<2	10
C00049663	86.1	176	340	0.2	3960	1.6	5	8
C00049664	41.6	274	450	0.1	3500	2.8	4	5
C00049665	6.1	222	110	0.2	2340	2.1	20	15
C00049666	61.0	232	340	<0.1	1390	2.3	7	8
C00049667	56.2	213	40	<0.1	950	0.6	<2	6
C00049668	60.1	246	490	0.5	3230	2.1	<2	3
C00049669	36.1	157	780	0.5	9530	2.4	5	14
C00049670	20.2	122	500	1.3	7170	2.2	21	337
C00049671	67.8	151	1260	1.0	15900	4.6	22	53

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Ag GE_MMI_M 0.5 ppb	Al GE_MMI_M 1 ppm	As GE_MMI_M 10 ppb	Au GE_MMI_M 0.1 ppb	Ba GE_MMI_M 10 ppb	Bi GE_MMI_M 0.5 ppb	Ca GE_MMI_M 2 ppm	Cd GE_MMI_M 1 ppb
C00049672	40.9	168	600	0.8	10900	2.3	6	28
C00049673	7.2	111	820	0.9	11400	4.1	17	57
C00049674	69.4	116	510	0.4	6280	2.4	11	29
C00049675	8.4	148	1040	0.8	10800	7.2	8	27
C00049676	62.4	210	760	1.2	15700	3.7	19	46
C00049677	13.6	120	370	0.6	9600	2.6	7	17
C00049678	1.6	105	250	0.3	7960	1.7	30	30
C00049679	22.7	206	410	1.4	7160	2.4	7	29
C00049680	9.1	167	520	1.7	10500	3.1	16	32
C00049681	90.1	258	760	1.1	15900	4.0	28	105
C00049682	3.4	66	300	0.6	10400	1.1	48	33
C00049683	7.3	115	370	1.4	12200	2.2	33	43
C00049684	3.9	80	150	0.2	7550	1.8	23	38
C00049685	43.6	162	640	1.6	14500	4.1	53	563
C00049686	11.0	115	360	0.8	13100	3.8	4	53
C00049687	7.6	53	190	1.7	10600	<0.5	66	708
C00049688	15.4	77	450	1.1	17400	5.5	45	122
C00049689	9.3	96	20	<0.1	4300	0.8	13	23
C00049690	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C00049691	4.5	30	80	0.1	4000	<0.5	220	41
C00049692	35.2	101	90	<0.1	1360	2.5	7	10
C00049693	6.6	65	70	0.3	690	3.6	3	5
C00049694	16.6	120	80	0.2	910	1.1	8	5
C00049695	29.2	71	80	0.1	620	1.1	<2	3
C00049696	26.4	124	100	0.1	1290	1.2	<2	4
C00049697	75.1	128	70	0.4	2540	4.5	<2	8
C00049698	63.1	257	120	0.9	2020	4.8	<2	8
C00049699	88.1	166	40	0.3	2260	2.9	4	16
C00049700	33.1	255	10	<0.1	810	0.6	<2	6
C00049701	34.4	153	350	0.6	5440	2.4	21	11
C00049702	78.1	304	610	1.0	16400	3.2	5	14
C00049703	11.3	105	220	0.2	8690	1.3	2	5
C00049704	32.4	131	570	0.3	8470	3.2	3	5
C00049705	111	245	290	0.8	13400	2.6	16	18
C00049706	263	158	600	1.0	11500	3.1	2	7
C00049707	5.9	74	270	0.2	17200	1.3	<2	5
C00049708	9.0	99	520	2.4	16700	6.1	18	8
C00049709	7.8	89	710	0.7	12100	3.1	7	9
C00049710	4.7	86	610	0.8	11800	1.8	9	12
C00049711	2.5	35	170	0.2	6430	1.1	74	68

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Ag GE_MMI_M 0.5 ppb	Al GE_MMI_M 1 ppm	As GE_MMI_M 10 ppb	Au GE_MMI_M 0.1 ppb	Ba GE_MMI_M 10 ppb	Bi GE_MMI_M 0.5 ppb	Ca GE_MMI_M 2 ppm	Cd GE_MMI_M 1 ppb
C00049712	2.9	53	170	0.2	3000	<0.5	172	34
C00049713	4.6	32	60	0.3	1400	<0.5	67	86
C00049714	1.3	76	70	0.1	1680	<0.5	109	133
C00049715	4.7	38	20	0.3	2750	<0.5	367	835
C00049716	34.6	141	90	1.2	7470	<0.5	<2	7
C00049717	15.3	110	90	0.6	2560	<0.5	16	17
*Rep C00049598	21.1	170	430	0.4	6750	3.1	11	167
*Rep C00049652	9.0	103	440	1.1	910	1.8	2	15
*Rep C00049667	59.4	220	30	<0.1	860	0.7	<2	6
*Rep C00049688	16.2	80	410	1.3	16200	5.8	44	154
*Rep C00049695	24.1	68	90	<0.1	550	1.3	<2	2
*Std AMIS0169	9.5	58	<10	0.4	820	<0.5	37	2
*Std MMISRM24	17.5	39	<10	3.5	180	<0.5	52	6
*Blk BLANK	<0.5	<1	<10	<0.1	<10	1.1	<2	<1
*Blk BLANK	<0.5	<1	<10	<0.1	<10	1.2	<2	<1

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Ce GE_MMI_M 2 ppb	Co GE_MMI_M 1 ppb	Cr GE_MMI_M 100 ppb	Cs GE_MMI_M 0.2 ppb	Cu GE_MMI_M 10 ppb	Dy GE_MMI_M 0.5 ppb	Er GE_MMI_M 0.2 ppb	Eu GE_MMI_M 0.2 ppb
C00049587	<2	20	<100	1.2	250	<0.5	<0.2	<0.2
C00049588	49	1040	<100	11.3	4130	26.3	16.9	6.3
C00049589	59	248	<100	5.8	1160	12.6	5.8	3.9
C00049590	33	25	<100	1.8	2230	10.6	4.8	3.1
C00049591	3	214	<100	14.1	890	2.8	1.7	0.8
C00049592	46	13	<100	6.9	5590	64.8	45.8	7.8
C00049593	32	145	<100	4.4	4810	32.6	21.1	5.7
C00049594	142	61	300	67.4	2010	47.1	34.4	13.2
C00049595	6	58	<100	1.3	170	4.4	2.7	1.0
C00049596	60	1480	<100	5.0	1440	13.8	6.8	4.0
C00049597	19	528	<100	6.7	1080	8.0	4.2	2.4
C00049598	105	185	100	11.2	3240	33.5	18.7	9.3
C00049599	<2	28	<100	1.1	90	0.9	0.4	0.3
C00049600	39	128	<100	3.0	1090	7.2	3.5	2.0
C00049601	26	81	<100	4.7	960	6.0	3.2	1.8
C00049602	44	1540	<100	6.9	2470	14.4	7.7	4.2
C00049603	47	566	<100	3.8	800	14.8	8.5	4.1
C00049604	242	1360	<100	3.7	4510	63.7	31.2	18.7
C00049605	23	1470	<100	0.8	660	5.3	3.5	2.3
C00049651	47	11	<100	50.9	280	5.7	2.9	1.8
C00049652	44	11	<100	35.3	300	6.1	3.4	2.2
C00049653	47	16	200	6.1	340	6.1	2.7	2.8
C00049654	154	228	100	14.1	1070	12.4	4.7	4.5
C00049655	120	58	200	17.2	680	14.4	6.2	5.2
C00049656	80	32	100	8.8	360	10.1	4.4	3.6
C00049657	76	39	<100	9.2	450	10.5	4.7	3.3
C00049658	92	105	200	18.0	750	11.8	5.1	3.7
C00049659	101	64	100	11.3	650	31.3	12.7	8.2
C00049660	140	74	100	13.6	1250	39.8	15.3	11.4
C00049661	163	90	100	12.8	970	26.5	10.0	8.5
C00049662	138	476	<100	10.6	1540	35.4	11.2	11.0
C00049663	161	173	100	15.9	1550	31.3	9.3	11.2
C00049664	86	70	200	21.9	1310	14.2	5.6	5.2
C00049665	16	15	<100	7.7	220	7.6	3.7	1.9
C00049666	33	18	300	17.7	1290	12.9	4.3	3.7
C00049667	42	40	<100	3.3	410	5.7	2.9	1.5
C00049668	98	63	200	16.6	640	11.2	5.2	3.9
C00049669	120	108	100	14.0	2090	29.0	11.1	9.1
C00049670	42	476	<100	8.7	7990	21.4	11.1	5.1
C00049671	276	411	100	14.6	3550	84.8	32.9	23.6

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Ce GE_MMI_M 2 ppb	Co GE_MMI_M 1 ppb	Cr GE_MMI_M 100 ppb	Cs GE_MMI_M 0.2 ppb	Cu GE_MMI_M 10 ppb	Dy GE_MMI_M 0.5 ppb	Er GE_MMI_M 0.2 ppb	Eu GE_MMI_M 0.2 ppb
C00049672	272	174	100	15.8	2560	110	47.3	32.6
C00049673	75	585	<100	6.7	5110	27.7	12.7	7.8
C00049674	90	63	<100	8.7	1210	19.9	7.8	6.0
C00049675	67	446	<100	14.2	2860	15.8	8.2	5.2
C00049676	234	185	100	15.7	2630	48.9	21.0	16.3
C00049677	33	47	<100	6.7	1070	5.1	2.2	2.7
C00049678	33	78	<100	12.0	1010	6.1	3.7	2.3
C00049679	62	101	<100	11.4	2170	12.2	4.9	4.2
C00049680	96	160	<100	12.0	3770	18.2	8.0	6.7
C00049681	168	183	200	17.6	3290	61.9	27.0	19.0
C00049682	23	81	<100	3.5	1430	8.3	3.2	3.3
C00049683	47	543	<100	7.5	3750	17.2	7.8	5.7
C00049684	23	44	<100	10.1	1080	3.3	1.5	1.9
C00049685	138	670	<100	11.5	7700	50.8	21.7	15.2
C00049686	49	40	<100	4.9	1460	7.9	3.3	4.2
C00049687	19	340	<100	4.8	6510	7.9	3.9	3.5
C00049688	40	86	<100	4.6	2950	9.1	4.2	5.0
C00049689	37	18	<100	2.9	100	3.6	1.8	2.1
C00049690	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C00049691	33	684	<100	1.1	2720	11.8	6.2	3.7
C00049692	66	10	100	24.2	470	8.6	3.8	2.9
C00049693	36	4	<100	42.4	240	4.1	1.9	1.7
C00049694	62	11	<100	19.0	230	5.1	2.5	1.6
C00049695	30	5	<100	19.9	200	4.6	2.4	1.4
C00049696	47	4	<100	10.0	200	6.2	2.7	2.6
C00049697	74	34	<100	8.5	2980	23.4	9.2	7.6
C00049698	54	7	<100	49.7	11400	11.0	4.0	4.1
C00049699	34	24	<100	7.3	14200	7.2	3.1	2.6
C00049700	48	9	<100	4.9	370	3.2	1.9	1.2
C00049701	48	49	100	8.5	1820	6.6	3.0	2.9
C00049702	108	230	200	24.9	3210	18.4	6.8	8.4
C00049703	26	32	<100	6.0	280	4.3	2.4	2.3
C00049704	70	49	100	22.2	690	9.0	4.1	4.4
C00049705	96	107	<100	7.6	2050	27.1	11.7	9.1
C00049706	95	50	200	22.7	1730	20.7	6.5	7.0
C00049707	24	53	<100	3.7	400	3.9	2.1	3.2
C00049708	37	170	<100	9.5	2700	6.4	2.5	4.2
C00049709	35	210	<100	5.0	740	8.1	3.7	3.8
C00049710	30	183	<100	3.5	1650	6.8	3.1	3.3
C00049711	10	337	<100	1.8	280	3.1	1.7	1.5

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Ce GE_MMI_M 2 ppb	Co GE_MMI_M 1 ppb	Cr GE_MMI_M 100 ppb	Cs GE_MMI_M 0.2 ppb	Cu GE_MMI_M 10 ppb	Dy GE_MMI_M 0.5 ppb	Er GE_MMI_M 0.2 ppb	Eu GE_MMI_M 0.2 ppb
C00049712	7	161	<100	1.5	550	2.2	1.5	1.0
C00049713	22	175	<100	1.1	1530	7.4	4.7	1.9
C00049714	14	168	<100	2.3	1340	4.4	2.9	1.0
C00049715	12	168	<100	0.4	4030	2.8	1.9	1.0
C00049716	34	30	<100	2.9	3140	8.5	4.6	2.9
C00049717	28	14	<100	3.1	750	5.7	3.6	1.9
*Rep C00049598	83	149	<100	7.1	2870	28.9	15.7	7.4
*Rep C00049652	46	12	<100	37.1	290	6.8	3.2	2.1
*Rep C00049667	46	36	<100	3.3	480	5.7	2.8	1.6
*Rep C00049688	42	82	<100	4.4	3080	10.1	4.5	4.9
*Rep C00049695	28	4	<100	21.3	240	4.0	1.8	1.3
*Std AMIS0169	718	93	<100	7.3	3740	26.5	11.2	10.0
*Std MMISRM24	42	18	<100	9.1	230	4.1	1.5	1.3
*Blk BLANK	<2	<1	<100	<0.2	<10	<0.5	<0.2	<0.2
*Blk BLANK	<2	<1	<100	<0.2	<10	<0.5	<0.2	<0.2

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Fe GE_MMI_M 1 ppm	Ga GE_MMI_M 0.5 ppb	Gd GE_MMI_M 0.5 ppb	Hg GE_MMI_M 1 ppb	In GE_MMI_M 0.1 ppb	K GE_MMI_M 0.5 ppm	La GE_MMI_M 1 ppb	Li GE_MMI_M 1 ppb
C00049587	6	<0.5	<0.5	<1	<0.1	48.4	<1	<1
C00049588	269	11.3	28.8	2	0.2	25.4	24	18
C00049589	382	16.1	14.6	<1	0.2	14.4	34	10
C00049590	405	10.6	12.4	<1	<0.1	19.0	16	4
C00049591	177	3.4	3.0	<1	<0.1	21.1	3	13
C00049592	180	4.2	42.4	<1	0.2	11.9	19	3
C00049593	81	3.2	27.6	<1	<0.1	24.7	17	7
C00049594	651	72.8	49.7	5	0.7	84.9	87	126
C00049595	93	2.9	4.8	<1	<0.1	33.3	4	7
C00049596	351	10.2	16.9	1	0.1	45.7	27	13
C00049597	264	11.1	9.6	1	0.1	73.7	13	22
C00049598	458	17.5	38.4	3	0.4	26.6	54	20
C00049599	9	0.9	0.8	<1	<0.1	41.3	1	8
C00049600	502	6.4	8.2	<1	0.1	23.0	19	14
C00049601	334	9.4	7.5	<1	0.1	33.1	14	19
C00049602	365	9.8	16.2	<1	0.2	53.6	19	24
C00049603	217	6.1	17.4	<1	0.1	30.8	22	12
C00049604	199	8.4	76.5	8	0.2	10.4	81	7
C00049605	93	4.4	5.5	<1	<0.1	38.7	6	4
C00049651	69	8.7	6.5	<1	0.1	12.8	20	2
C00049652	75	8.6	8.0	<1	0.2	8.7	18	1
C00049653	212	19.8	9.2	<1	0.4	10.0	24	5
C00049654	421	24.9	14.6	<1	0.4	18.3	72	13
C00049655	352	28.8	19.9	1	0.4	16.9	57	14
C00049656	303	22.1	12.8	<1	0.4	14.4	39	9
C00049657	210	26.3	11.7	<1	0.3	11.0	36	8
C00049658	329	28.9	13.3	1	0.6	23.4	50	22
C00049659	260	22.5	34.8	<1	0.3	18.9	46	14
C00049660	235	16.5	51.8	3	0.4	18.4	58	13
C00049661	245	29.3	35.5	2	0.6	13.9	68	12
C00049662	202	11.8	51.4	2	0.3	17.8	56	7
C00049663	180	11.8	44.8	6	0.5	15.0	65	13
C00049664	360	32.5	21.5	1	0.5	19.1	42	13
C00049665	242	17.2	7.9	2	0.6	28.5	8	6
C00049666	674	30.7	18.7	<1	0.6	11.0	18	4
C00049667	145	31.4	5.5	1	<0.1	13.8	23	2
C00049668	299	30.7	14.4	<1	0.3	19.9	50	14
C00049669	285	21.5	37.2	4	0.6	19.2	59	20
C00049670	449	12.5	23.4	6	0.2	32.5	20	20
C00049671	400	18.8	106	8	0.8	22.3	126	7

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .



Element Method Det.Lim. Units	Fe GE_MMI_M 1 ppm	Ga GE_MMI_M 0.5 ppb	Gd GE_MMI_M 0.5 ppb	Hg GE_MMI_M 1 ppb	In GE_MMI_M 0.1 ppb	K GE_MMI_M 0.5 ppm	La GE_MMI_M 1 ppb	Li GE_MMI_M 1 ppb
C00049672	239	20.3	154	5	0.4	19.2	111	16
C00049673	540	13.5	34.0	4	0.4	33.3	33	14
C00049674	231	14.7	23.5	3	0.4	17.4	43	10
C00049675	561	26.2	17.7	4	0.4	40.0	33	31
C00049676	334	24.3	64.3	8	0.6	25.5	108	24
C00049677	423	13.5	5.8	1	0.2	25.4	19	15
C00049678	324	18.9	6.3	<1	0.2	31.7	18	29
C00049679	395	19.4	13.7	5	0.4	31.5	35	18
C00049680	471	19.6	22.9	3	0.3	30.2	47	27
C00049681	384	27.9	78.8	8	0.8	49.5	73	29
C00049682	325	5.1	9.4	1	0.2	36.5	12	13
C00049683	393	11.6	19.3	3	0.4	35.6	23	17
C00049684	389	15.0	3.6	2	0.3	40.5	15	26
C00049685	301	15.0	60.1	23	1.0	33.7	55	17
C00049686	484	9.8	10.5	5	0.7	18.3	27	8
C00049687	257	2.9	9.1	3	0.3	23.0	7	10
C00049688	424	8.1	11.9	3	0.7	23.9	22	14
C00049689	120	12.9	4.2	<1	0.2	26.7	19	2
C00049690	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C00049691	169	2.6	14.2	<1	<0.1	13.6	10	3
C00049692	107	7.7	10.5	<1	0.4	10.0	32	2
C00049693	79	9.8	5.0	<1	0.2	8.1	16	3
C00049694	64	13.6	5.0	<1	0.1	11.6	29	2
C00049695	47	9.5	4.6	<1	<0.1	6.1	14	2
C00049696	65	12.4	8.3	<1	0.1	6.1	23	3
C00049697	106	13.5	32.7	<1	0.2	14.3	32	8
C00049698	193	20.8	17.6	2	0.4	13.4	31	8
C00049699	222	21.6	9.6	3	0.3	10.6	17	7
C00049700	99	70.8	3.1	<1	<0.1	10.9	26	<1
C00049701	510	22.0	9.4	6	0.5	27.7	26	12
C00049702	394	35.4	24.4	21	1.2	33.7	55	29
C00049703	394	10.2	5.6	2	0.2	22.0	15	12
C00049704	320	26.0	13.8	2	0.6	21.6	35	18
C00049705	274	19.9	33.6	23	1.2	31.4	44	12
C00049706	338	23.4	23.0	77	2.8	24.6	43	38
C00049707	395	7.1	4.7	3	0.3	16.9	12	9
C00049708	453	16.5	8.5	7	0.5	31.1	21	19
C00049709	416	10.8	8.9	6	0.4	33.0	18	16
C00049710	396	8.3	8.3	3	0.3	33.6	15	11
C00049711	354	3.2	3.0	1	<0.1	29.1	5	5

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Fe GE_MMI_M 1 ppm	Ga GE_MMI_M 0.5 ppb	Gd GE_MMI_M 0.5 ppb	Hg GE_MMI_M 1 ppb	In GE_MMI_M 0.1 ppb	K GE_MMI_M 0.5 ppm	La GE_MMI_M 1 ppb	Li GE_MMI_M 1 ppb
C00049712	240	2.9	2.5	<1	<0.1	10.3	5	7
C00049713	324	2.2	7.7	<1	0.1	7.3	14	4
C00049714	270	5.4	3.7	<1	0.1	13.9	9	6
C00049715	95	1.1	2.8	<1	<0.1	13.5	6	5
C00049716	321	4.6	9.4	<1	0.2	12.1	18	3
C00049717	372	6.7	7.1	<1	0.2	24.0	16	5
*Rep C00049598	424	13.4	29.8	2	0.4	22.8	45	15
*Rep C00049652	81	9.7	7.7	<1	0.2	8.7	19	1
*Rep C00049667	135	33.4	6.0	2	0.1	12.7	24	2
*Rep C00049688	409	8.4	13.1	4	0.7	22.8	23	12
*Rep C00049695	48	9.4	4.5	<1	<0.1	6.2	13	2
*Std AMIS0169	38	9.7	38.2	<1	<0.1	47.6	396	1
*Std MMISRM24	12	3.4	5.4	9	<0.1	11.0	16	1
*Blk BLANK	<1	<0.5	<0.5	<1	<0.1	<0.5	<1	<1
*Blk BLANK	<1	<0.5	<0.5	<1	<0.1	<0.5	<1	<1

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Mg GE_MMI_M 0.5 ppm	Mn GE_MMI_M 100 ppb	Mo GE_MMI_M 2 ppb	Nb GE_MMI_M 0.5 ppb	Nd GE_MMI_M 1 ppb	Ni GE_MMI_M 5 ppb	P GE_MMI_M 0.1 ppm	Pb GE_MMI_M 5 ppb
C00049587	50.7	1100	22	<0.5	<1	4700	5.6	<5
C00049588	10.7	76300	77	1.4	52	5960	7.1	170
C00049589	7.1	11600	64	7.9	40	1920	52.6	407
C00049590	2.2	700	47	10.9	25	349	32.8	103
C00049591	26.3	19500	29	<0.5	6	3380	2.3	18
C00049592	<0.5	<100	28	0.8	54	342	8.4	117
C00049593	3.3	11500	13	0.7	43	6440	1.7	17
C00049594	10.1	1500	115	8.8	118	482	31.4	984
C00049595	16.4	8400	5	<0.5	8	793	2.0	9
C00049596	8.3	22000	35	2.4	41	800	11.4	121
C00049597	9.8	42900	52	1.3	19	1670	11.1	84
C00049598	2.6	2900	54	4.6	82	1520	37.8	250
C00049599	55.3	1400	4	<0.5	2	820	3.3	<5
C00049600	9.0	4800	26	3.7	25	540	8.4	158
C00049601	5.6	800	41	3.2	18	689	7.8	233
C00049602	21.6	27800	174	1.5	35	3820	5.9	337
C00049603	16.8	17700	45	0.8	39	2090	2.7	148
C00049604	4.1	48200	153	2.5	185	1940	12.3	432
C00049605	10.5	137000	273	<0.5	13	5120	1.9	8
C00049651	0.8	600	18	1.1	31	57	8.0	1380
C00049652	<0.5	200	15	1.7	30	54	9.9	1360
C00049653	1.0	2000	20	4.2	26	118	10.3	2680
C00049654	1.5	8500	47	5.5	69	260	11.2	428
C00049655	1.6	2200	38	5.9	61	128	18.8	670
C00049656	1.1	1000	37	3.7	47	108	16.3	1010
C00049657	0.9	1300	64	3.7	48	94	11.9	525
C00049658	2.1	3500	73	3.5	48	229	18.1	610
C00049659	1.8	1500	56	2.9	69	148	14.6	706
C00049660	1.5	2200	54	2.4	108	126	12.1	772
C00049661	1.2	2300	71	5.3	102	211	10.2	4960
C00049662	1.1	8200	60	2.1	97	259	9.7	3220
C00049663	1.0	3500	60	1.9	111	248	6.6	4270
C00049664	1.6	1700	48	6.4	48	232	14.3	1820
C00049665	4.9	1300	13	1.5	10	108	11.5	2580
C00049666	1.4	500	99	2.5	23	228	17.7	2660
C00049667	0.5	<100	7	9.4	19	77	13.4	305
C00049668	1.3	1300	52	4.1	52	154	14.2	1980
C00049669	1.6	2600	72	2.6	84	259	14.8	1570
C00049670	5.5	2900	55	2.0	35	3170	9.0	679
C00049671	2.7	14000	124	3.9	201	849	18.7	5480

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Mg GE_MMI_M 0.5 ppm	Mn GE_MMI_M 100 ppb	Mo GE_MMI_M 2 ppb	Nb GE_MMI_M 0.5 ppb	Nd GE_MMI_M 1 ppb	Ni GE_MMI_M 5 ppb	P GE_MMI_M 0.1 ppm	Pb GE_MMI_M 5 ppb
C00049672	1.7	4600	63	2.4	291	203	13.3	2740
C00049673	3.4	9100	92	3.4	57	1830	11.0	1740
C00049674	2.0	1800	41	3.1	55	320	13.0	3930
C00049675	2.9	4500	86	6.9	40	660	18.2	1880
C00049676	4.8	4200	57	5.6	153	439	18.0	4930
C00049677	2.1	500	27	5.5	17	654	11.3	576
C00049678	12.2	700	39	3.3	18	893	5.9	546
C00049679	2.4	1100	38	5.9	36	481	12.7	1810
C00049680	3.6	1700	43	4.2	57	1410	9.2	963
C00049681	3.6	6400	65	5.8	125	819	26.7	6910
C00049682	15.5	1600	32	1.2	17	810	5.0	756
C00049683	9.3	10600	42	3.1	34	1160	13.6	1570
C00049684	7.9	1000	113	5.1	12	196	17.8	4200
C00049685	6.1	34300	80	3.4	106	1480	13.9	6210
C00049686	1.6	300	56	8.7	27	378	26.6	5950
C00049687	16.4	13400	31	0.6	16	5260	1.8	1240
C00049688	10.3	800	88	4.2	27	1900	6.2	4810
C00049689	2.7	1100	20	6.4	19	70	68.6	1300
C00049690	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C00049691	14.2	18900	92	<0.5	30	1420	1.9	119
C00049692	0.9	300	15	1.6	37	91	13.1	1510
C00049693	0.5	300	22	2.4	20	27	9.6	1990
C00049694	0.8	100	25	3.5	27	26	17.0	348
C00049695	<0.5	<100	27	2.7	14	22	12.6	485
C00049696	0.6	300	14	4.4	22	12	23.5	425
C00049697	0.9	3600	41	3.0	43	42	17.2	2170
C00049698	1.0	200	25	16.4	27	198	38.5	9570
C00049699	1.1	1100	23	10.2	20	456	35.5	7720
C00049700	0.5	100	6	15.1	20	44	16.9	393
C00049701	5.8	3400	49	7.7	24	329	23.8	2090
C00049702	2.5	6400	66	7.5	58	348	28.7	8390
C00049703	1.7	300	42	4.0	14	154	12.2	1760
C00049704	1.8	3500	60	3.5	38	75	14.7	5790
C00049705	4.2	3100	34	5.9	57	279	23.4	16600
C00049706	2.5	1800	60	2.8	50	82	14.5	17900
C00049707	1.6	300	28	2.6	13	183	7.4	2370
C00049708	6.2	1500	62	4.6	20	785	12.0	6810
C00049709	3.6	2100	49	5.1	19	452	12.2	4500
C00049710	4.1	1300	39	3.1	17	657	9.5	3480
C00049711	6.6	8400	94	0.8	7	378	5.1	185

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Mg GE_MMI_M 0.5 ppm	Mn GE_MMI_M 100 ppb	Mo GE_MMI_M 2 ppb	Nb GE_MMI_M 0.5 ppb	Nd GE_MMI_M 1 ppb	Ni GE_MMI_M 5 ppb	P GE_MMI_M 0.1 ppm	Pb GE_MMI_M 5 ppb
C00049712	11.4	4400	16	0.7	6	2050	1.6	173
C00049713	3.1	1200	29	1.5	21	1340	3.2	88
C00049714	5.7	1400	54	1.7	12	1260	3.2	61
C00049715	31.3	3000	13	<0.5	9	3400	0.3	135
C00049716	0.5	<100	13	2.2	19	77	7.2	282
C00049717	1.3	200	9	1.9	16	70	7.6	280
*Rep C00049598	2.2	1800	45	4.6	66	1440	34.3	206
*Rep C00049652	<0.5	200	16	2.1	31	57	11.2	1410
*Rep C00049667	<0.5	<100	8	10.6	21	76	12.0	340
*Rep C00049688	9.4	900	86	4.4	28	1770	6.4	4900
*Rep C00049695	<0.5	<100	28	2.6	15	21	10.3	557
*Std AMIS0169	28.5	3700	4	2.6	362	408	2.4	101
*Std MMISRM24	9.3	300	21	<0.5	26	128	0.7	211
*Blk BLANK	<0.5	<100	<2	<0.5	<1	<5	<0.1	<5
*Blk BLANK	<0.5	<100	<2	<0.5	<1	<5	<0.1	<5

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Pd GE_MMI_M 1 ppb	Pr GE_MMI_M 0.5 ppb	Pt GE_MMI_M 0.1 ppb	Rb GE_MMI_M 1 ppb	Sb GE_MMI_M 0.5 ppb	Sc GE_MMI_M 5 ppb	Sm GE_MMI_M 1 ppb	Sn GE_MMI_M 1 ppb
C00049587	<1	<0.5	<0.1	79	0.7	<5	<1	<1
C00049588	<1	8.9	<0.1	97	23.6	68	20	1
C00049589	<1	8.6	<0.1	101	15.0	34	11	2
C00049590	<1	5.0	<0.1	25	3.8	28	9	<1
C00049591	<1	1.1	<0.1	79	2.4	14	2	<1
C00049592	<1	9.1	<0.1	105	7.3	69	23	<1
C00049593	1	7.5	<0.1	145	3.4	36	17	<1
C00049594	<1	23.1	<0.1	520	55.2	315	43	10
C00049595	<1	1.5	<0.1	34	1.7	10	3	<1
C00049596	<1	8.4	<0.1	49	8.8	46	12	1
C00049597	<1	3.7	<0.1	98	6.4	41	7	1
C00049598	<1	17.4	<0.1	100	22.0	82	27	2
C00049599	<1	<0.5	<0.1	41	<0.5	9	<1	<1
C00049600	<1	5.2	<0.1	26	9.2	27	7	1
C00049601	<1	3.8	<0.1	63	8.3	35	5	1
C00049602	<1	6.5	<0.1	85	26.8	56	11	1
C00049603	<1	8.0	<0.1	84	7.9	42	12	<1
C00049604	<1	34.5	<0.1	48	41.1	62	59	<1
C00049605	<1	2.4	<0.1	113	6.3	8	4	<1
C00049651	<1	6.5	<0.1	119	18.3	27	7	1
C00049652	<1	6.6	<0.1	95	9.8	22	7	1
C00049653	<1	6.1	<0.1	80	15.5	39	8	3
C00049654	<1	17.0	<0.1	143	23.4	54	15	2
C00049655	<1	14.5	<0.1	161	21.0	61	15	2
C00049656	<1	10.5	0.1	134	14.8	45	11	2
C00049657	<1	10.3	<0.1	140	17.0	41	11	2
C00049658	<1	11.3	<0.1	183	35.0	74	12	3
C00049659	<1	14.4	<0.1	158	22.0	56	23	2
C00049660	<1	21.8	<0.1	138	23.8	68	36	2
C00049661	<1	22.4	<0.1	157	30.4	61	30	2
C00049662	<1	19.0	<0.1	130	25.7	51	34	1
C00049663	<1	23.1	<0.1	190	26.1	70	34	1
C00049664	<1	11.3	<0.1	183	25.5	56	14	3
C00049665	<1	2.3	<0.1	61	9.7	32	4	<1
C00049666	<1	4.7	<0.1	96	23.1	38	11	1
C00049667	<1	5.0	<0.1	64	1.9	24	5	<1
C00049668	<1	12.2	<0.1	215	23.5	59	12	2
C00049669	<1	17.0	<0.1	136	36.5	77	26	2
C00049670	<1	6.7	<0.1	77	23.4	74	14	2
C00049671	<1	43.2	0.1	98	74.7	112	71	3

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Pd GE_MMI_M 1 ppb	Pr GE_MMI_M 0.5 ppb	Pt GE_MMI_M 0.1 ppb	Rb GE_MMI_M 1 ppb	Sb GE_MMI_M 0.5 ppb	Sc GE_MMI_M 5 ppb	Sm GE_MMI_M 1 ppb	Sn GE_MMI_M 1 ppb
C00049672	<1	50.0	<0.1	138	31.1	105	96	2
C00049673	<1	11.6	<0.1	92	48.0	67	21	2
C00049674	<1	12.3	<0.1	88	22.1	50	19	2
C00049675	<1	8.7	<0.1	137	50.4	91	13	3
C00049676	<1	32.1	<0.1	148	30.9	117	47	3
C00049677	<1	4.1	<0.1	72	9.7	42	5	1
C00049678	<1	4.1	<0.1	82	12.8	66	5	3
C00049679	<1	8.0	<0.1	129	20.1	61	10	2
C00049680	<1	12.2	<0.1	144	20.6	84	16	2
C00049681	<1	23.8	0.1	126	37.0	140	46	3
C00049682	<1	3.2	<0.1	50	13.6	31	6	<1
C00049683	<1	6.7	<0.1	82	19.4	60	12	1
C00049684	<1	3.0	<0.1	73	15.6	57	3	3
C00049685	<1	20.8	<0.1	125	47.4	115	40	2
C00049686	<1	6.0	<0.1	56	20.6	41	7	2
C00049687	<1	2.7	<0.1	75	11.5	28	5	<1
C00049688	<1	5.6	<0.1	51	20.7	37	8	1
C00049689	<1	4.7	<0.1	112	0.9	59	4	3
C00049690	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C00049691	<1	4.9	<0.1	31	7.8	16	10	<1
C00049692	<1	8.4	<0.1	96	9.2	48	10	1
C00049693	<1	4.5	<0.1	126	14.2	17	5	1
C00049694	<1	7.7	<0.1	96	12.4	25	6	2
C00049695	<1	3.7	<0.1	122	7.6	19	4	2
C00049696	<1	5.2	<0.1	98	6.1	27	7	3
C00049697	<1	9.7	<0.1	127	27.7	53	18	1
C00049698	<1	6.4	<0.1	111	11.7	60	11	1
C00049699	<1	4.1	<0.1	65	4.9	63	7	1
C00049700	<1	5.1	<0.1	50	0.5	18	4	1
C00049701	<1	5.8	0.1	81	27.8	51	8	3
C00049702	<1	13.6	0.1	206	62.0	116	18	4
C00049703	<1	3.1	<0.1	32	13.9	37	4	1
C00049704	<1	8.4	<0.1	169	36.1	59	10	3
C00049705	<1	12.4	<0.1	68	27.0	65	20	2
C00049706	<1	11.5	<0.1	157	76.0	94	15	5
C00049707	<1	2.9	<0.1	23	16.6	27	4	1
C00049708	<1	4.6	<0.1	115	27.8	50	6	2
C00049709	<1	4.3	<0.1	49	27.7	43	6	2
C00049710	<1	3.8	<0.1	35	23.9	35	6	1
C00049711	<1	1.5	<0.1	54	7.0	16	3	<1

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Pd GE_MMI_M 1 ppb	Pr GE_MMI_M 0.5 ppb	Pt GE_MMI_M 0.1 ppb	Rb GE_MMI_M 1 ppb	Sb GE_MMI_M 0.5 ppb	Sc GE_MMI_M 5 ppb	Sm GE_MMI_M 1 ppb	Sn GE_MMI_M 1 ppb
C00049712	<1	1.3	<0.1	12	3.4	22	2	<1
C00049713	<1	4.3	<0.1	9	5.7	25	6	<1
C00049714	<1	2.5	<0.1	12	6.9	21	3	<1
C00049715	<1	1.9	<0.1	26	2.3	12	2	<1
C00049716	<1	4.0	<0.1	78	4.2	33	6	<1
C00049717	<1	3.8	<0.1	39	4.2	94	5	<1
*Rep C00049598	<1	13.2	<0.1	65	18.0	69	21	1
*Rep C00049652	<1	6.7	<0.1	98	10.4	24	8	1
*Rep C00049667	<1	5.3	<0.1	59	1.6	22	5	1
*Rep C00049688	<1	6.3	<0.1	50	21.7	38	9	1
*Rep C00049695	<1	3.7	<0.1	130	6.6	18	4	1
*Std AMIS0169	<1	92.7	0.1	254	0.7	54	59	<1
*Std MMISRM24	5	5.5	2.7	121	<0.5	6	5	<1
*Blk BLANK	<1	<0.5	<0.1	<1	<0.5	<5	<1	<1
*Blk BLANK	<1	<0.5	<0.1	<1	<0.5	<5	<1	<1

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .



Element Method Det.Lim. Units	Sr GE_MMI_M 10 ppb	Ta GE_MMI_M 1 ppb	Tb GE_MMI_M 0.1 ppb	Te GE_MMI_M 10 ppb	Th GE_MMI_M 0.5 ppb	Ti GE_MMI_M 10 ppb	Tl GE_MMI_M 0.1 ppb	U GE_MMI_M 0.5 ppb
C00049587	1290	<1	<0.1	<10	<0.5	20	0.1	694
C00049588	340	<1	4.4	<10	35.2	380	3.7	129
C00049589	430	<1	2.3	<10	41.5	1610	2.0	49.0
C00049590	140	<1	1.9	<10	12.7	1540	0.7	37.8
C00049591	910	<1	0.4	<10	2.2	100	2.3	28.0
C00049592	20	<1	8.2	<10	52.5	160	1.5	130
C00049593	340	<1	4.9	<10	32.8	110	1.3	122
C00049594	510	<1	7.8	<10	171	2330	16.3	269
C00049595	880	<1	0.7	<10	4.3	70	0.7	25.0
C00049596	210	<1	2.6	<10	48.0	420	1.3	60.5
C00049597	340	<1	1.4	<10	22.0	300	1.7	44.2
C00049598	350	<1	6.0	<10	116	790	1.7	96.0
C00049599	1610	<1	<0.1	<10	<0.5	40	0.1	7.6
C00049600	300	<1	1.2	<10	47.3	310	0.6	22.2
C00049601	340	<1	1.1	<10	28.2	560	1.0	34.6
C00049602	630	<1	2.4	<10	55.1	330	1.6	119
C00049603	500	<1	2.5	<10	26.3	180	0.6	64.1
C00049604	330	<1	11.5	<10	77.4	530	1.7	224
C00049605	600	<1	0.8	<10	4.8	30	0.8	30.8
C00049651	100	<1	1.1	<10	42.7	300	0.5	10.5
C00049652	60	<1	1.1	<10	41.1	330	0.4	17.8
C00049653	240	<1	1.2	<10	50.9	960	0.8	16.7
C00049654	120	<1	2.4	<10	76.5	1290	1.5	29.5
C00049655	100	<1	2.8	<10	81.3	1340	1.7	35.3
C00049656	70	<1	1.9	<10	50.9	870	1.2	23.5
C00049657	90	<1	1.8	<10	53.1	920	0.9	31.8
C00049658	210	<1	2.2	<10	97.0	840	1.9	44.9
C00049659	110	<1	5.9	<10	78.3	780	1.2	46.8
C00049660	90	<1	7.8	<10	107	680	1.4	71.1
C00049661	130	<1	5.4	<10	95.8	1350	1.5	52.2
C00049662	90	<1	7.3	<10	109	550	1.1	75.9
C00049663	130	<1	6.7	<10	109	440	1.3	65.5
C00049664	130	<1	3.0	<10	56.0	1380	1.6	34.4
C00049665	240	<1	1.6	<10	30.7	430	0.9	10.9
C00049666	150	<1	2.6	<10	57.1	650	1.7	28.2
C00049667	40	<1	0.9	<10	25.1	1990	0.6	16.3
C00049668	150	<1	2.0	<10	54.6	850	1.5	20.2
C00049669	210	<1	5.8	<10	106	670	1.5	79.5
C00049670	370	<1	3.6	<10	63.5	460	1.2	92.7
C00049671	420	<1	16.2	<10	166	930	2.0	130

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Sr GE_MMI_M 10 ppb	Ta GE_MMI_M 1 ppb	Tb GE_MMI_M 0.1 ppb	Te GE_MMI_M 10 ppb	Th GE_MMI_M 0.5 ppb	Ti GE_MMI_M 10 ppb	Tl GE_MMI_M 0.1 ppb	U GE_MMI_M 0.5 ppb
C00049672	170	<1	20.8	<10	93.7	640	1.6	90.1
C00049673	270	<1	5.4	<10	77.1	700	1.0	89.0
C00049674	170	<1	3.9	<10	62.9	640	1.1	43.8
C00049675	250	<1	2.7	<10	83.3	1310	2.0	70.8
C00049676	260	<1	9.0	<10	113	1070	1.7	87.6
C00049677	160	<1	0.8	<10	46.7	690	1.0	22.1
C00049678	430	<1	1.0	40	30.5	580	1.4	19.5
C00049679	240	<1	2.0	<10	90.9	900	1.4	54.4
C00049680	300	<1	3.2	<10	90.6	800	1.7	65.9
C00049681	350	<1	11.3	<10	126	1140	2.4	106
C00049682	570	<1	1.4	<10	16.8	220	0.7	36.5
C00049683	460	<1	3.0	<10	48.3	560	1.4	64.3
C00049684	330	<1	0.6	<10	14.6	720	2.3	17.0
C00049685	340	<1	9.2	<10	105	700	3.7	144
C00049686	210	<1	1.4	<10	38.3	1080	1.0	32.1
C00049687	630	<1	1.4	<10	17.6	90	1.8	46.8
C00049688	500	<1	1.5	<10	36.6	730	1.1	39.8
C00049689	110	<1	0.7	<10	20.2	3160	0.8	44.2
C00049690	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C00049691	690	<1	2.0	<10	14.2	70	1.1	209
C00049692	50	<1	1.5	<10	86.9	410	0.5	27.4
C00049693	140	<1	0.7	<10	36.2	460	0.6	11.6
C00049694	100	<1	0.8	<10	20.9	960	0.4	8.0
C00049695	20	<1	0.7	<10	17.4	600	0.6	9.9
C00049696	30	<1	1.2	<10	16.2	1560	0.8	12.3
C00049697	300	<1	4.5	<10	29.8	700	1.6	23.2
C00049698	90	<1	2.2	<10	52.1	2080	1.8	50.1
C00049699	120	<1	1.4	<10	22.8	1900	1.2	30.9
C00049700	70	<1	0.5	<10	16.7	3030	0.4	10.7
C00049701	340	<1	1.4	<10	47.7	1540	1.3	37.5
C00049702	430	<1	3.4	<10	86.7	1640	3.5	68.1
C00049703	140	<1	0.7	<10	21.3	680	0.9	19.8
C00049704	230	<1	1.7	<10	38.4	840	2.3	24.2
C00049705	300	<1	4.9	<10	61.6	940	1.5	52.3
C00049706	250	<1	3.8	<10	113	610	4.5	60.3
C00049707	150	<1	0.7	<10	17.3	470	0.7	18.4
C00049708	390	<1	1.1	<10	36.9	970	2.8	40.7
C00049709	280	<1	1.4	<10	27.0	800	1.5	46.9
C00049710	250	<1	1.3	<10	24.1	490	1.0	43.8
C00049711	480	<1	0.4	<10	13.2	190	1.6	106

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	Sr GE_MMI_M 10 ppb	Ta GE_MMI_M 1 ppb	Tb GE_MMI_M 0.1 ppb	Te GE_MMI_M 10 ppb	Th GE_MMI_M 0.5 ppb	Ti GE_MMI_M 10 ppb	Tl GE_MMI_M 0.1 ppb	U GE_MMI_M 0.5 ppb
C00049712	760	<1	0.4	<10	5.2	130	0.2	309
C00049713	470	<1	1.3	<10	15.6	170	0.2	112
C00049714	930	<1	0.6	<10	12.0	250	0.5	777
C00049715	1570	<1	0.4	<10	3.6	40	0.3	74.8
C00049716	<10	<1	1.4	<10	39.9	250	1.2	40.3
C00049717	<10	<1	1.0	<10	28.0	270	1.3	26.9
*Rep C00049598	300	<1	4.8	<10	98.3	740	1.2	97.3
*Rep C00049652	50	<1	1.1	<10	42.4	350	0.4	18.6
*Rep C00049667	40	<1	1.0	<10	26.5	2230	0.5	15.8
*Rep C00049688	450	<1	1.8	<10	37.9	690	1.0	41.0
*Rep C00049695	40	<1	0.7	<10	17.9	520	0.6	9.9
*Std AMIS0169	80	<1	4.9	<10	65.8	320	0.8	22.9
*Std MMISRM24	1540	<1	0.7	<10	18.4	50	0.2	9.9
*Blk BLANK	20	<1	<0.1	<10	<0.5	<10	<0.1	<0.5
*Blk BLANK	<10	<1	<0.1	<10	<0.5	<10	<0.1	<0.5

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	W GE_MMI_M 0.5 ppb	Y GE_MMI_M 1 ppb	Yb GE_MMI_M 0.2 ppb	Zn GE_MMI_M 10 ppb	Zr GE_MMI_M 2 ppb	pH GE_ISE15V 0 pH-unit
C00049587	<0.5	<1	<0.2	12500	<2	6.72
C00049588	2.1	174	16.3	13000	152	5.59
C00049589	2.5	76	4.3	10300	265	5.07
C00049590	2.2	49	3.2	320	171	4.02
C00049591	0.5	22	1.7	20300	22	5.87
C00049592	<0.5	388	41.8	4520	189	5.37
C00049593	<0.5	247	19.0	128000	129	5.27
C00049594	5.7	191	44.1	6950	740	3.85
C00049595	<0.5	35	2.6	71800	19	5.13
C00049596	0.9	76	5.5	5930	179	5.01
C00049597	1.2	44	3.9	16200	83	5.38
C00049598	2.2	188	16.3	7230	421	4.50
C00049599	<0.5	5	0.6	13500	4	5.96
C00049600	1.9	32	2.8	1340	146	4.01
C00049601	1.2	26	2.6	1440	128	4.82
C00049602	3.3	75	7.5	7290	212	6.17
C00049603	0.8	84	7.5	3350	95	5.88
C00049604	2.4	356	25.0	4100	289	5.39
C00049605	<0.5	41	3.9	3240	34	6.69
C00049651	0.8	26	2.6	280	120	4.65
C00049652	0.7	28	2.8	200	204	4.81
C00049653	1.3	23	2.4	310	148	3.87
C00049654	2.1	46	4.5	450	465	4.67
C00049655	2.6	56	4.8	310	481	4.66
C00049656	1.7	42	3.6	310	303	4.51
C00049657	1.8	40	4.0	350	337	5.04
C00049658	3.0	44	4.2	800	560	4.85
C00049659	2.4	125	8.1	490	353	4.56
C00049660	1.7	168	9.2	430	424	5.09
C00049661	2.9	98	8.0	1180	409	4.70
C00049662	2.0	122	7.5	850	392	4.74
C00049663	1.6	103	7.0	2010	360	5.74
C00049664	2.2	50	3.8	760	256	4.85
C00049665	<0.5	26	2.9	2800	108	4.07
C00049666	0.6	39	3.4	1340	235	4.40
C00049667	0.7	21	2.3	210	256	4.68
C00049668	1.8	45	4.5	670	402	4.90
C00049669	2.5	113	8.4	1400	439	5.11
C00049670	1.6	93	10.3	7060	252	5.31
C00049671	8.3	392	20.4	4690	736	4.99

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	W GE_MMI_M 0.5 ppb	Y GE_MMI_M 1 ppb	Yb GE_MMI_M 0.2 ppb	Zn GE_MMI_M 10 ppb	Zr GE_MMI_M 2 ppb	pH GE_ISE15V 0 pH-unit
C00049672	2.3	581	33.4	1280	432	5.22
C00049673	13.1	127	11.3	3330	337	5.38
C00049674	10.3	86	5.8	2470	283	4.89
C00049675	6.8	75	7.3	1970	444	5.20
C00049676	4.3	235	15.7	2300	537	4.86
C00049677	1.4	21	2.3	820	281	4.55
C00049678	19.0	30	3.4	2990	145	5.12
C00049679	1.8	43	3.9	3480	584	5.32
C00049680	2.7	73	6.8	3150	451	5.63
C00049681	2.7	285	23.2	10100	696	5.04
C00049682	8.4	34	3.0	8100	77	5.49
C00049683	33.5	73	6.6	8220	258	5.55
C00049684	2.8	12	1.6	3870	131	4.66
C00049685	2.1	225	19.4	19200	495	5.96
C00049686	2.2	33	2.9	2170	249	4.69
C00049687	<0.5	38	4.1	25200	82	6.31
C00049688	2.3	44	3.6	11400	164	5.61
C00049689	1.3	17	1.4	1490	219	4.19
C00049690	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
C00049691	0.6	80	6.1	3860	50	6.67
C00049692	0.5	34	3.4	270	145	4.80
C00049693	0.7	16	1.6	150	125	4.83
C00049694	0.8	26	2.4	190	147	5.12
C00049695	0.9	20	2.0	100	139	5.11
C00049696	1.0	28	2.5	60	159	4.66
C00049697	0.7	92	6.9	140	273	4.81
C00049698	1.3	35	3.9	130	749	4.88
C00049699	1.1	28	3.8	150	293	4.71
C00049700	1.0	13	1.6	150	321	4.75
C00049701	2.1	27	2.8	1060	311	5.14
C00049702	2.8	59	5.9	1710	589	4.87
C00049703	5.0	18	2.2	780	148	5.13
C00049704	1.9	35	3.4	1330	284	4.65
C00049705	8.1	111	9.8	4550	384	4.93
C00049706	2.1	73	4.4	1380	507	4.92
C00049707	1.4	18	2.0	1040	117	5.29
C00049708	1.7	23	3.1	6850	301	5.87
C00049709	4.8	30	3.5	2650	216	5.38
C00049710	5.8	28	2.8	3400	155	5.57
C00049711	0.8	18	1.6	3370	64	6.05

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

Element Method Det.Lim. Units	W GE_MMI_M 0.5 ppb	Y GE_MMI_M 1 ppb	Yb GE_MMI_M 0.2 ppb	Zn GE_MMI_M 10 ppb	Zr GE_MMI_M 2 ppb	pH GE_ISE15V 0 pH-unit
C00049712	0.6	20	1.7	5380	40	5.68
C00049713	<0.5	54	4.6	3030	71	5.58
C00049714	0.8	35	3.3	4210	82	5.24
C00049715	<0.5	28	2.5	10400	16	6.72
C00049716	<0.5	36	3.3	610	215	4.84
C00049717	<0.5	26	4.2	2450	147	4.46
*Rep C00049592						5.17
*Rep C00049665						4.17
*Rep C00049691						7.05
*Rep C00049697						4.93
*Std OREAS251						7.61
*Std AMIS0267						8.02
*Std AMIS0267						8.04
*Std OREAS251						7.76
*Blk BLANK						6.96
*Blk BLANK						7.13
*Rep C00049598	1.9	152	14.2	7100	342	
*Rep C00049652	0.6	28	3.3	210	214	
*Rep C00049667	0.8	22	2.5	190	279	
*Rep C00049688	2.1	50	4.1	11700	173	
*Rep C00049695	0.7	20	1.8	100	133	
*Std AMIS0169	1.4	114	9.3	210	48	
*Std MMISRM24	<0.5	24	1.2	120	31	
*Blk BLANK	<0.5	<1	<0.2	<10	<2	
*Blk BLANK	<0.5	<1	<0.2	<10	<2	

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

**WARNING:** The sample(s) to which the findings recorded herein (the "Findings") relate was (were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativity of the goods and strictly relate to the sample (s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted. The findings report on the samples provided by the client and are not intended for commercial or contractual settlement purposes. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .