



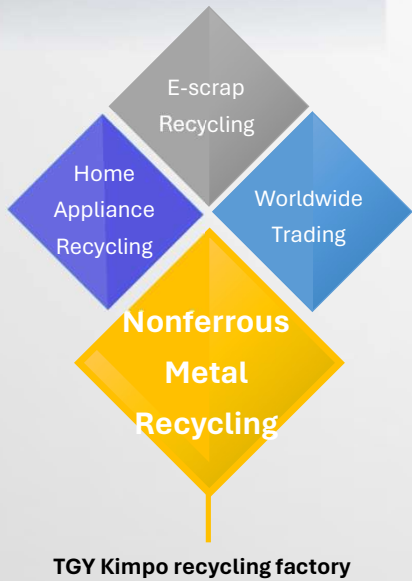
Introduction of Secondary Aluminum Ingot Product

TGY Co., Ltd. 2023

1. Company Introduction



Company	TGY Co.,LTD
CEO	Yonghee Choi
Establishment	Oct 1, 2011
Capital	46,685 USD
Employees	12
Head office / Factory	Seoul, Republic of Korea/ Kimpo-si, Gyeonggi-do, Republic of Korea
Internet homepage	www.tgy.kr
Annual turnover(2022Y)	10,040,000 USD



01 Nonferrous metal recycling business

Production of aluminum ingots using scrap material
 Production of copper ingots using scrap material

02 Electronic scrap recycling business

Crushing and sorting waste resources of computers and communication devices

03 Raw material trade business

Domestic and international distribution through online/offline networks that supply and purchase raw materials (non-ferrous metals) reliably

04 Online platform business for recycling waste home appliances

Completed development online platform "Gold Refund"
 C2B, B2B consumer electronics collection and recycling platform (www.goldrefund.kr)



Nonferrous metal scrap



Nonferrous metal Ingot

1. Company Introduction

✓ Business license



Comprehensive recycling permit (Korea)

Intermediate recycling permit (Korea)

Factory Registration Certificate

✓ Certification



Business innovation company certificate

ISO 9001

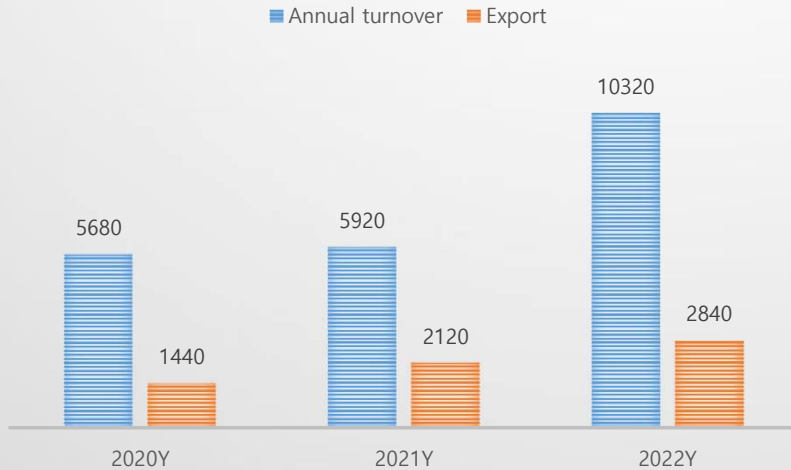
ISO 14001

Casting technology certificate

R&D Department certificate

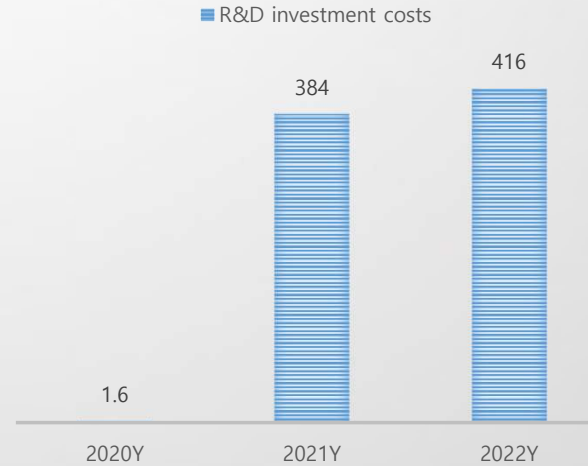
✓ Annual turnover and Export

* Ten thousand USD



✓ Research and Development

* Ten thousand USD

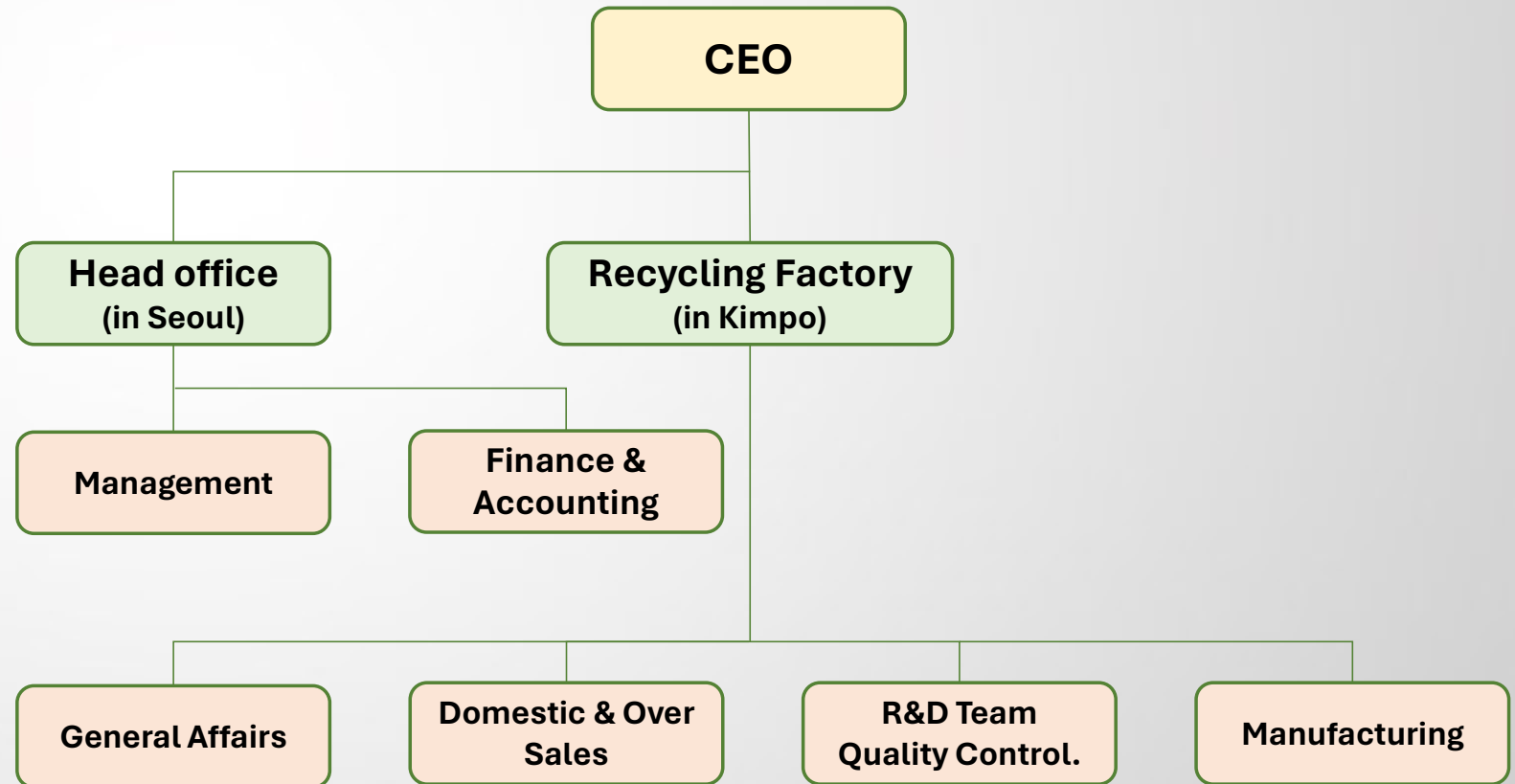


Intellectual property rights & Patent

- Crushing Facility For Recycling E-SCRAP (2018)
- Metal smelting device including dust collector (2019)
- E-scrap Collection and Processing System (2020)
- Dust Collector system for Particle Collecting Effect (2023)

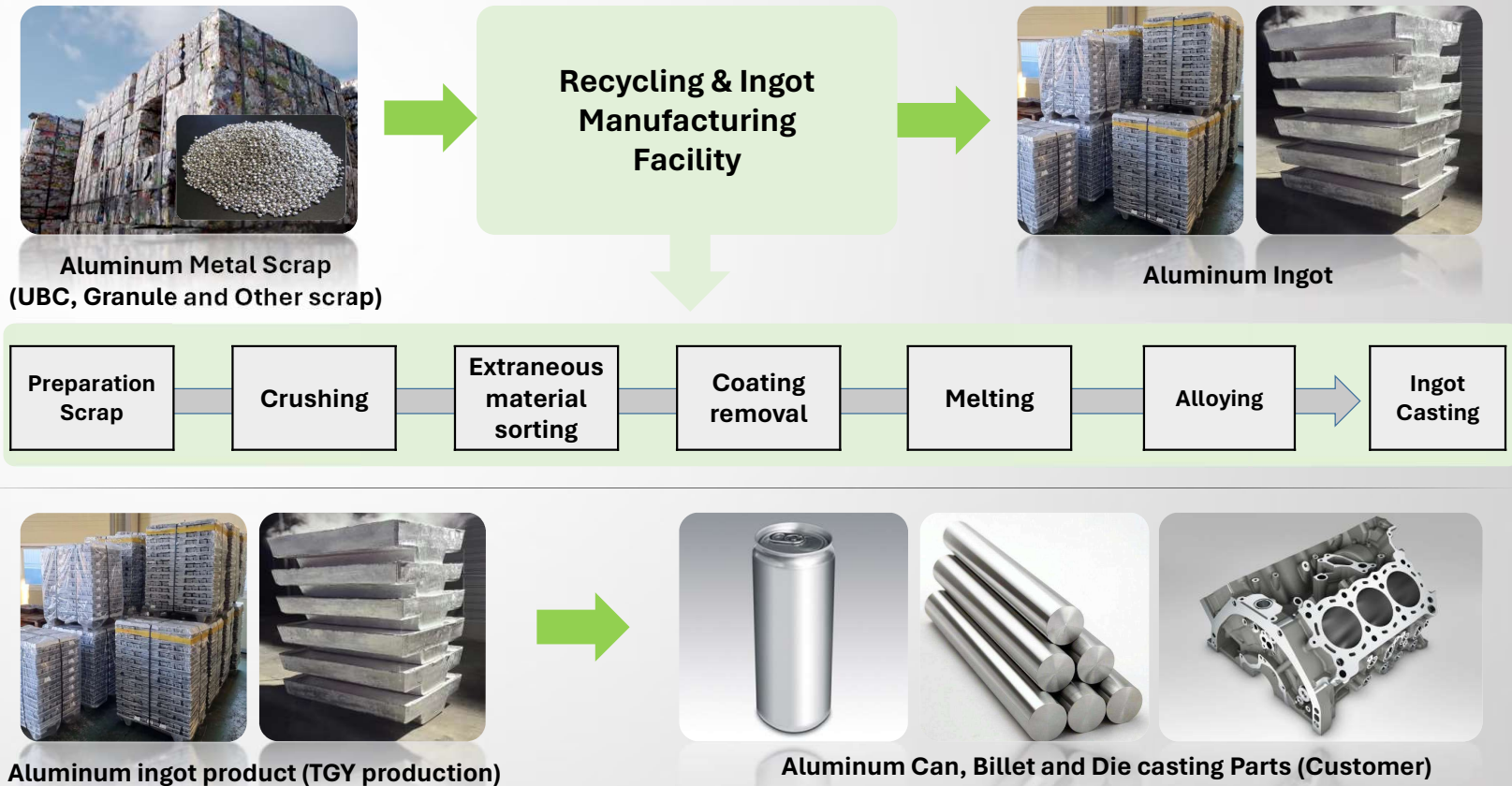
1. Company Introduction

Organization (2023Y)



2. Business Introduction

- **Aluminum Product**



- ✓ Aluminum has a 95% energy saving effect when recycled, and is a highly utilized metal in the industry as a resource that relies on foreign imports, especially China. TGY produces “**high-quality secondary aluminum ingots**” through waste aluminum regeneration and supplies them to secondary aluminum alloy manufacturers that need aluminum.

2. Business Introduction

- Facility



Rotary Furnace (8t/Chg.)



Continuous Casting Furnace (2t/Chg.)



Rotary Kiln for Coating Removal



Alloying Furnace (10t/Chg.)



Double Shaft Shredder



TGY recycling factory In Kimpo

3. Product Introduction

Al Scrap (Material)



UBC Block



Al Granule

Product



SOW aluminum ingot



Standard aluminum ingot

Quality Control



AMETEK SPECTRO TOY TOY CO., LTD.

Sample Name	Material	Material	Material	Material	Material	Material	Material	Material	Material	Material
TOY TOY CO.	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al
1	99.99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	99.99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Aluminum Purity
 ≥ 99.0%
 ≥ 98.0%
 ≥ 97.0%
 ≥ 96.0%
 &
 Alloy (ex: ALDC12)

3. Product Introduction

Al Ingot Chemical Composition Case 1 _ Al Granule



Sample Result Name	Measure Date Time	Method Name	Type	Type Corr Sample Name
TGY-220624-PA-전선차폐제그라놀	2022-06-24 오후 2:00:22	Al-01	Unknown	
Sample Name				
TGY-220624-PA-전선차폐제그라놀				

Meas.	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ag
	%	%	%	%	%	%	%	%	%	%
1	0.147	0.450	0.0250	0.0280	0.0092	0.0022	0.0041	0.0128	0.0155	<0.00010
2	0.137	0.460	0.0209	0.0277	0.0095	0.0021	0.0039	0.0122	0.0150	<0.00010
<x>	0.142	0.455	0.0229	0.0279	0.0094	0.0021	0.0040	0.0125	0.0153	<0.00010

Meas.	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Ga
	%	%	%	%	%	%	%	%	%	%
1	<0.00100	0.00068	<0.00010	<0.00005	<0.00100	<0.00010	0.00024	<0.0015	<0.00050	0.0109
2	<0.00100	0.00059	<0.00010	<0.00005	<0.00100	<0.00010	0.00023	<0.0015	<0.00050	0.0111
<x>	<0.00100	0.00064	<0.00010	<0.00005	<0.00100	<0.00010	0.00024	<0.0015	<0.00050	0.0110

Meas.	Hg	In	La	Li	Mo	Na	P	Pb	Sb	Sn
	%	%	%	%	%	%	%	%	%	%
1	0.0025	<0.00030	<0.00030	<0.00010	<0.00050	<0.00010	<0.00100	0.0016	<0.0030	<0.00050
2	0.0023	<0.00030	<0.00030	<0.00010	<0.00050	<0.00010	<0.00100	0.0015	<0.0030	<0.00050
<x>	0.0024	<0.00030	<0.00030	<0.00010	<0.00050	<0.00010	<0.00100	0.0015	<0.0030	<0.00050

Meas.	Sr	V	Zr	Hf	Sc	Y	Al
	%	%	%	%	%	%	%
1	<0.00010	0.0097	0.00057	0.0240	<0.00050	0.0034	99.24
2	<0.00010	0.0093	0.00049	0.0252	<0.00050	0.0030	99.25
<x>	<0.00010	0.0095	0.00053	0.0246	<0.00050	0.0032	99.24

3. Product Introduction

Al Ingot Chemical Composition Case 1 _ Al Granule



Sample Result Name	Measure Date Time	Method Name	Type	Type Corr Sample Name
TGY-220407-PA-AL그려놀(고무)	2022-04-07 오후 3:35:25	Al-01	Unknown	
Sample Name				
TGY-220407-PA-AL그려놀 (고무)				

Meas.	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ag
	%	%	%	%	%	%	%	%	%	%
1	0.152	0.441	0.0130	0.0045	0.186	0.00086	0.0034	0.183	0.0130	<0.00010
2	0.153	0.445	0.0093	0.0047	0.184	0.00083	0.0028	0.178	0.0124	<0.00010
<X>	0.152	0.443	0.0112	0.0046	0.185	0.00084	0.0031	0.180	0.0127	<0.00010

Meas.	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Ga
	%	%	%	%	%	%	%	%	%	%
1	<0.00100	0.00080	<0.00010	<0.00005	<0.00100	0.00020	0.00014	<0.0015	<0.00050	0.0106
2	<0.00100	0.00067	<0.00010	<0.00005	<0.00100	0.00048	<0.00010	<0.0015	<0.00050	0.0103
<X>	<0.00100	0.00073	<0.00010	<0.00005	<0.00100	0.00034	0.00012	<0.0015	<0.00050	0.0104

Meas.	Hg	In	La	Li	Mo	Na	P	Pb	Sb	Sn
	%	%	%	%	%	%	%	%	%	%
1	0.0024	<0.00030	<0.00030	<0.00010	<0.00050	0.0074	0.0089	0.0032	<0.0030	<0.00050
2	0.0021	<0.00030	<0.00030	<0.00010	<0.00050	0.0106	0.0083	0.0026	<0.0030	<0.00050
<X>	0.0022	<0.00030	<0.00030	<0.00010	<0.00050	0.0090	0.0091	0.0029	<0.0030	<0.00050

Meas.	Sr	V	Zr	Hf	Sc	Y	Al
	%	%	%	%	%	%	%
1	<0.00010	0.0089	0.00098	0.0115	<0.00050	0.0033	98.94
2	<0.00010	0.0084	0.00083	0.0121	<0.00050	0.0029	98.94
<X>	<0.00010	0.0086	0.00091	0.0118	<0.00050	0.0031	98.94

3. Product Introduction

Al Ingot Chemical Composition Case 2 _ UBC Block



TGY TGY CO., LTD



Sample Result Name	Measure Date Time	Method Name	Type	Type Corr Sample Name
TGY-23-24-A_9	2023-06-21 오전 9:41:03	AI-01	Unknown	

Sample Name
TGY-23-24-A_9

Mess.	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ag
	%	%	%	%	%	%	%	%	%	%
1	0.681	0.542	0.166	0.306	0.543	0.0212	0.0055	0.296	0.0210	0.00040
2	0.701	0.565	0.172	0.307	0.557	0.0209	0.0060	0.299	0.0209	0.00041
<x>	0.691	0.554	0.169	0.307	0.550	0.0210	0.0058	0.297	0.0209	0.00040

Mess.	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Ga
	%	%	%	%	%	%	%	%	%	%
1	<0.00100	0.00057	<0.00010	<0.00005	<0.00100	0.0048	0.0016	<0.0015	<0.00050	0.0115
2	<0.00100	0.00057	<0.00010	<0.00005	<0.00100	0.0054	0.0017	<0.0015	<0.00050	0.0117
<x>	<0.00100	0.00057	<0.00010	<0.00005	<0.00100	0.0051	0.0016	<0.0015	<0.00050	0.0116

Mess.	Hg	In	La	Li	Mo	Na	P	Pb	Sb	Sn
	%	%	%	%	%	%	%	%	%	%
1	0.0049	<0.00030	<0.00030	<0.00010	<0.00050	0.0021	<0.00100	0.0079	<0.0030	0.0290
2	0.0050	<0.00030	<0.00030	<0.00010	<0.00050	0.0022	<0.00100	0.0084	<0.0030	0.0319
<x>	0.0049	<0.00030	<0.00030	<0.00010	<0.00050	0.0021	<0.00100	0.0082	<0.0030	0.0304

Mess.	Sr	V	Zr	Hf	Sc	Y	Al
	%	%	%	%	%	%	%
1	<0.00010	0.0127	0.00049	0.0223	<0.00050	0.0020	97.31
2	<0.00010	0.0126	0.00035	0.0228	<0.00050	0.0013	97.24
<x>	<0.00010	0.0127	0.00042	0.0225	<0.00050	0.0016	97.27

3. Product Introduction

Al Ingot Chemical Composition Case 2 _ UBC Block



TGY TGY CO., LTD



Sample Result Name	Measure Date Time	Method Name	Type	Type Corr Sample Name
TGY-23-25-4_9	2023-06-26 오전 11:37:24	AI-01	Unknown	

Sample Name
TGY-23-25-4_9

Meas.	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ag
	%	%	%	%	%	%	%	%	%	%
1	0.510	0.794	0.203	0.494	0.692	0.0198	0.0067	0.448	0.0179	0.00017
2	0.495	0.799	0.197	0.497	0.666	0.0199	0.0064	0.441	0.0188	0.00015
<x>	0.503	0.797	0.200	0.496	0.679	0.0199	0.0065	0.445	0.0184	0.00016

Meas.	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Ga
	%	%	%	%	%	%	%	%	%	%
1	<0.00100	0.00066	<0.00010	<0.00005	<0.00100	0.00069	0.0022	<0.0015	<0.00050	0.0121
2	<0.00100	0.00069	<0.00010	<0.00005	<0.00100	0.00088	0.0021	<0.0015	<0.00050	0.0119
<x>	<0.00100	0.00067	<0.00010	<0.00005	<0.00100	0.00079	0.0022	<0.0015	<0.00050	0.0120

Meas.	Hg	In	La	Li	Mo	Na	P	Pb	Sb	Sn
	%	%	%	%	%	%	%	%	%	%
1	0.0026	<0.00030	<0.00030	<0.00010	<0.00050	<0.00010	<0.00100	0.0072	<0.0030	0.0342
2	0.0028	<0.00030	<0.00030	<0.00010	<0.00050	<0.00010	<0.00100	0.0071	<0.0030	0.0332
<x>	0.0027	<0.00030	<0.00030	<0.00010	<0.00050	<0.00010	<0.00100	0.0071	<0.0030	0.0337

Meas.	Sr	V	Zr	Hf	Sc	Y	Al
	%	%	%	%	%	%	%
1	<0.00010	0.0120	0.0019	0.0294	<0.00050	0.0011	96.70
2	<0.00010	0.0121	0.0020	0.0292	<0.00050	0.00081	96.75
<x>	<0.00010	0.0120	0.0020	0.0293	<0.00050	0.00095	96.72

3. Product Introduction

Al Ingot Chemical Composition Case 3 _ALDC12 Alloy

Sample Result Name	Measure Date Time	Method Name	Type	Type Corr Sample Name
TGY-220822-BA-AL_12#_INGOT_1	2022-08-22 ㄹ 3:23:59	Al-01	Unknown	
Sample Name				
TGY-220822-BA-AL_12#_INGOT_1				

Meas.	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ag
	%	%	%	%	%	%	%	%	%	%
1	10.26	0.888	1.61	0.142	0.285	0.0890	0.0484	0.787	0.0271	0.00035
2	10.22	0.877	1.59	0.141	0.282	0.0877	0.0484	0.791	0.0271	0.00035
<x>	10.24	0.883	1.60	0.141	0.283	0.0883	0.0484	0.789	0.0271	0.00035

Meas.	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Ga
	%	%	%	%	%	%	%	%	%	%
1	<0.00100	0.00089	<0.00010	<0.00005	0.0290	0.0023	<0.00010	<0.0015	<0.00050	0.0107
2	<0.00100	0.00085	<0.00010	<0.00005	0.0290	0.0024	<0.00010	<0.0015	<0.00050	0.0109
<x>	<0.00100	0.00087	<0.00010	<0.00005	0.0290	0.0024	<0.00010	<0.0015	<0.00050	0.0108

Meas.	Hg	In	La	Li	Mo	Na	P	Pb	Sb	Sn
	%	%	%	%	%	%	%	%	%	%
1	0.0047	<0.00030	<0.00030	<0.00010	0.0011	<0.00010	<0.00100	0.0591	<0.0030	0.0719
2	0.0048	<0.00030	<0.00030	<0.00010	0.00100	<0.00010	<0.00100	0.0591	<0.0030	0.0713
<x>	0.0048	<0.00030	<0.00030	<0.00010	0.0010	<0.00010	<0.00100	0.0591	<0.0030	0.0716

Meas.	Sr	V	Zr	Hf	Sc	Y	Al
	%	%	%	%	%	%	%
1	<0.00010	0.0091	0.0024	0.0160	<0.00050	0.0029	85.64
2	<0.00010	0.0089	0.0024	0.0142	<0.00050	0.0029	85.72
<x>	<0.00010	0.0090	0.0024	0.0151	<0.00050	0.0029	85.68

Contact

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