

NCS

Reference Material

(2021-2022)



NATIONAL ANALYSIS CENTER FOR IRON & STEEL
NCS Testing Technology Co., Ltd.

Introduction

National Analysis Centre for Iron and Steel (NACIS) is a research and development centre of analysis & test technology for iron and steel. It is an arbitration centre of material analysis, a promoting and training centre for new analysis technology. NACIS is responsible for management of national chemical standard analysis methods of iron, steel, alloy in P. R China.

Based on China Iron and Steel Research Institute group, The largest Institute in China, NACIS has advanced equipment and technology for analysis inspection.

NACIS has a long history in research of a wide variety of reference materials and production of metal, alloy, ore, ferrous alloy CRMs etc.. NACIS which is the earliest CRM producer in China from 1952 is a comprehensive unit for CRM production, accreditation and sales. NACIS has enough qualified staffs for CRM production and quality control.

From 1980, NACIS entered the international CRM market and up to now has distributors in more than 20 countries like Japan, Germany, United States, Sweden etc.. In national CRMs market, NACIS holds the largest market share and has 35 distributors.

The CRMs in this catalog are the CRMs from many producers under NACIS accreditation. You can also get CRMs which are available in China from NACIS even not listed in this catalog.

Address: No. 76 Xueyan Nanlu Haidian District

Beijing China 100081

Tel : 86-10-62176511

Fax: 86-10-62187223

E-mail: nacis@ncscrm.com

Website: www.ncsstandard.com

Certified Reference Material Index

Section 1: Iron, Steel & Alloy (Chip)	1
1) Pure Iron, Pig Iron, Cast Iron	1
2) Non-Alloy Steel	7
3) Low Alloy Steel	11
4) Alloy Steel	20
5) Tool Steel	25
6) Superalloy, Precious Alloy & Heat Resisting Alloy	27
Section 2 : Iron, Steel & Alloy (Disk)	29
Section 3 : Ferroalloy (Powder)	44
Section 4 : Mineral & Geology (Powder)	53
Section 5 : Slag, Refractory (Powder)	102
Section 6 : Gas In Metal	104
Section 7 : Nonferrous Metal (Chip)	110
1) Aluminum & Aluminum Alloy	110
2) Copper & Copper Alloy	112
3) Lead Base Alloy	113
4) Tin Base Alloy	114
5) Zinc Alloy	115
6) Titanium Alloy & Other	116
Section 8 : Nonferrous Metal (Disk)	117
1) Aluminum & Aluminum Alloy	117
2) Copper & Copper Alloy	127
3) Magnesium & Other Metal	130
Section 9 : Coal (Powder)	132
Section 10 : Environmental	137
Section 11 : Set-up Sample	147
1) Iron, steel & Alloy (Disk)	147
2) Nonferrous Metal	154
Section 12 : Solution Standard	155
Section 13 : Accelerator And Others	158

Section 1 Iron, Steel & Alloy(Chip)

1)Pure Iron, Pig Iron, Cast Iron

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Mo	Co	
NCSHC 11003	Cast Iron	3.77	1.47	0.659	0.230	0.129									100
NCSHC 11003a	Cast Iron	3.36	1.39	0.561	0.166	0.176									100
NCSHC 11003b	Cast Iron	3.36	1.82	0.386	0.135	0.154									100
NCSHC 11004	Cast Iron	2.72	2.56	0.359	0.124	0.115									100
NCSHC 11005	Cast Iron	2.19	3.07	0.219	0.047	0.048									100
NCSHC 11006	Cast Iron	3.11	1.37	0.850	0.270	0.130									100
NCSHC 11007	Pig Iron	2.70	1.72	1.66	0.201	0.102	0.589		0.031		0.0067	0.014			100
NCSHC 11008	Pig Iron	1.90	2.72	1.96	0.060	0.097	0.766		0.041		0.0075	0.013			100
NCSHC 11009	Pig Iron	3.26	1.18	1.98	0.385	0.081	0.373		0.020		0.0074	0.024			100
NCSHC 11011b	Pure Iron	0.0023	0.0023	0.013	0.0014	0.0014	0.0066	0.0027	0.0045	<0.0001	<0.0001	<0.0001	0.00030	0.0012	50
NCSHC 11012	High Chromium Cast Iron	1.95	0.59	0.926	0.0084	0.0079	13.11				0.137	0.064	0.52		100
NCSHC 11013	High Chromium Cast Iron	2.35	1.05	1.05	0.010	0.0094	15.06				0.16	0.062	2.84		100
		N	Zn	Sb	Sn	As	B	Ca	Bi	Mg	Pb	Nb	W	Ta	
NCSHC 11011b	Pure Iron	0.0045	0.00015	0.00029	0.00015	0.0026	0.00023	0.0003	<0.00001	(0.00006)	(0.00002)	(0.00004)	(0.00004)	<0.00001	
		La [#]	Se [#]	Cd [#]	Te [#]	Zr [#]	Ce [#]	Hf [#]							
NCSHC 11011b	Pure Iron	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00002							
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	B	Ti	Co	V	W	
NCSHC 11015	Rare Earth Magnesium Cast Iron	2.74	2.32	0.473	0.022	0.0009	0.040	0.627	0.031	0.0030	0.015	0.011	0.031	0.0032	80
NCSHC 11016	Pig Iron	2.99	1.67	0.431	0.048	0.033	0.249	1.02	0.03	0.0045	0.092		0.012	0.0043	100
NCSHC 11017	Pig Iron	3.81	1.56	0.262	0.048	0.055	0.278	0.324	0.394	0.015	0.042		0.093	0.119	100
		Mo	Mg	Sn	N	La	Ce	Als	As	R _E	Sb	Nb	Alt		
NCSHC 11015	Rare Earth Magnesium Cast Iron	0.0016	0.012	0.0037	0.0047	0.013	0.019	0.021	0.011	0.036	(0.0005)				
NCSHC 11016	Pig Iron	0.297		0.0054				0.0053	0.0101		0.0032	0.0061	0.0059		
NCSHC 11017	Pig Iron	0.196		0.06				0.116	0.0043		0.026	0.02	0.119		
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Mo	Co		
NCSHC 13004	High Chromium Cast Iron	2.46	0.320	1.63	0.383	0.012	12.95	0.122	0.73	0.026	0.0092	0.76			100
NCSHC 13005	High Chromium Cast Iron	2.86	0.365	1.07	0.058	0.028	22.53	0.250	0.42	0.039	0.005	1.14			100
NCSHC 13006	High Chromium Cast Iron	2.31	0.59	0.828	0.064	0.043	26.48	0.49	0.355	0.040	0.0053	2.70			100
NCSHC 13007	Alloy Cast Iron	3.95	1.30	0.271	0.129	0.233	4.31	0.029	0.011	0.012	0.016	0.36			100
NCSHC 13008	Alloy Cast Iron	3.46	3.15	1.05	0.252	0.062	0.202	0.132	0.263	0.0070	0.047	0.047			100
NCSHC 13010	Alloy Cast Iron	3.35	2.44	0.699	0.147	0.045	0.96	0.300	0.018			2.39			100
NCSHC 13011	Alloy Cast Iron	3.23	4.30	1.20	0.310	0.045	1.36	0.919	0.243			0.639			100
NCSHC 13013	Iron Powder	0.0041	0.018	0.126	0.0085	0.021									150
NCSHC 13015	Pig Iron	2.51	4.08	0.62	0.104	0.020									150
NCSHC 13016	Pig Iron	2.99	1.29	1.30	0.278	0.100									150
NCSHC 13020	Pig Iron	2.72	1.32	0.508	0.105	0.024									100
NCSHC 13021	Pig Iron	2.52	1.41	1.46	0.273	0.060									100
NCSHC 13022	Pig Iron	2.85	3.02	0.821	0.071	0.027									100
NCSHC 13024	Pig Iron	1.88	4.13	0.472	0.160	0.034									100
NCSHC 13025	Pig Iron	2.51	2.28	0.301	0.087	0.081									100
NCSHC 13026	Cast Iron	1.28	0.644	0.741	0.0285	0.0054	21.12	1.12	0.044	0.287	0.060	0.335			100
NCSHC 13027	Cast Iron	1.34	0.843	0.969	0.0310	0.0035	22.40	1.60	0.028	0.035	0.106	0.546			100
NCSHC 13028	Cast Iron	1.58	1.11	1.37	0.032	0.0038	24.73	2.07	0.0290	0.032	0.184	0.842			100
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Als	V	Ti	Mo	Co	
NCSHC 14003	Pig Iron	2.03	1.50	0.402	0.077	0.042				0.085					100

Section 1 Iron, Steel & Alloy(Chip)

1)Pure Iron, Pig Iron, Cast Iron

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Mo	Co		
NCSHC15002g	Pure Iron	0.0013	0.0014	0.00018	(0.0001)	0.001	0.00019	0.0052	0.00024	0.00065	(0.0001)	(0.0001)	0.0033	(0.0001)	15	
NCSHC15006	Pure Iron	0.080	0.171	0.043	0.0159	0.0075	0.043	0.147	0.135	0.088					100	
NCSHC15011	Pig Iron	2.58	2.76	1.00	0.087	0.068					N				100	
NCSHC15003a	Pure Iron	0.012	0.017	0.034	0.0019	0.020	0.016	0.030	0.021	0.060	0.015				100	
NCSHC15004a	Pure Iron	0.027	0.018	0.195	0.014	0.0063	0.048	0.116	0.089	0.290	0.016				100	
NCSHC15005a	Pure Iron	0.030	0.182	0.106	0.0061	0.025	0.147	0.162	0.123	0.205	0.011				100	
NCSHC15006a	Pure Iron	0.061	0.341	0.254	0.021	0.0058	0.114	0.182	0.168	0.412	0.012				100	
NCSHC15007a	Pure Iron	0.080	0.506	0.358	0.036	0.031	0.170	0.203	0.254	0.432	0.018				100	
NCSHC15014	Pure Iron(DT ₄)	0.0208	0.0922	0.246	0.0121	0.007	0.013	0.0202	0.020	0.046					100	
		Chemical Composition(Percent)														
		Ca	Mg	Cd	Zn	As	Sb	Bi	Sn	Pb						
NCSHC15002g	Pure Iron	0.0017	0.00022	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)						
NCSHC15014	Pure Iron(DT ₄)					0.0002	0.0005		0.0012	0.000085						
		Chemical Composition(Percent)														
		C	Si	Mn	P	S	Cu	Cr	Ni	Al	N					
NCSHC15015	Pure Iron	0.017	0.214	0.151	0.01	0.0022	0.118	0.017	0.105	0.413	0.0064				100	
NCSHC15016	Pure Iron	0.022	0.199	0.201	0.0072	0.0027	0.066	0.032	0.066	0.217	0.0123				100	
NCSHC15017	Pure Iron	0.061	0.166	0.319	0.04	0.005	0.02	0.022	0.02	0.284	0.0146				100	
NCSHC15018	Pure Iron	0.022	0.422	0.436	0.036	0.0032	0.2	0.205	0.323	0.515					100	
		Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Ti	Mo	Sn	As	Sb		
NCSHC16003b	Pig Iron	3.53	1.83	1.10	0.066	0.048			0.258	0.025					100	
NCSHC16006	Pig Iron	2.809	0.856	1.48	0.039	0.062			0.045	0.0118					100	
NCSHC16006b	Pig Iron	2.71	1.14	0.98	0.077	0.089			0.036	0.007					100	
NCSHC16008	Pig Iron	3.58	1.59	1.66	0.039	0.044			0.024	0.030					100	
NCSHC16008b	Pig Iron	3.45	1.44	1.84	0.046	0.018			0.015	0.019					100	
NCSHC16009	Pig Iron	2.202	0.378	0.528	0.0226	0.080			0.063	0.0094					100	
NCSHC16009b	Pig Iron	2.31	2.28	0.509	0.025	0.100			0.038	0.030					100	
NCSHC16010b	Pig Iron	3.90	0.93	0.414	0.044	0.044			0.010	0.001					100	
NCSHC16001b	Pig Iron	3.04	1.34	1.22	0.072	0.052			0.025	0.008					100	
NCSHC16002b	Pig Iron	2.38	0.48	0.700	0.082	0.034			0.026	0.006					100	
NCSHC16004b	Pig Iron	3.39	3.41	0.94	0.113	0.016			0.202	0.058					100	
NCSHC16022	Pig Iron	2.83	2.19	0.721	0.094	0.067									100	
NCSHC16023	Pig Iron	3.8	1.42	0.929	0.171	0.016									150	
NCSHC16024	Pig Iron	3.59	1.96	0.514	0.315	0.033									150	
NCSHC16026	Pig Iron	3.22	2.25	0.726	0.085	0.059									150	
		Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Mo	Sn	Zn		
NCSHC16027	Pig Iron	4.06	0.725	0.094	0.038	0.029	0.010	0.0023	0.0023	0.0064	0.026	0.0027	0.00014	(0.0003)	100	
NCSHC16028	Pig Iron	4.00	1.55	0.634	0.046	0.0073	0.036	0.0045	0.0051	0.018	0.084	0.0089	0.00018	(0.0002)	100	
		Pb	Bi	Sb	As											
NCSHC16027	Pig Iron	<0.0002	<0.00005	0.00013	0.0011											
NCSHC16028	Pig Iron	<0.0002	<0.00005	0.00016	0.0012											

Section 1 Iron, Steel & Alloy(Chip)

1)Pure Iron, Pig Iron, Cast Iron

Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Mn	P	S	As	RE	Mg						
NCSHC 18002	Cast Iron	2.67	2.94	1.36	0.051	0.031								150	
NCSHC 18003	Pig Iron	3.18	1.43	0.0732	0.243	0.049	0.064							100	
NCSHC 18005	Pig Iron	2.89	2.01	0.733	0.108	0.0058	0.091							100	
NCSHC 18006	Pig Iron	2.65	1.99	0.75	0.114	0.0057	0.092							100	
NCSHC 18008	Pig Iron	4.13	1.02	0.348	0.078	0.023	0.016							100	
NCSHC 18009	Pig Iron	3.83	1.88	0.74	0.186	0.023	0.025							100	
NCSHC 18010	Pig Iron	3.66	2.40	0.59	0.145	0.041	0.036	0.024	0.030					100	
NCSHC 18011	Pig Iron	3.43	1.93	0.729	0.079	0.0082	0.036							100	
NCSHC 18012	Pig Iron	3.23	1.93	0.74	0.079	0.0080	0.037							100	
NCSHC 18013	Pig Iron	3.40	2.12	0.79	0.049	0.0087	0.013							100	
NCSHC 18014	Pig Iron	3.36	2.136	0.792	0.049	0.0087	0.012							100	
NCSHC 18016	Pig Iron	3.20	2.91	0.42	0.104	0.0092	0.092							100	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Mo	Co		
NCSHC 19002	VTi Pig Iron	3.00	1.42	0.869	0.048	0.145	0.033	0.027	0.066	0.29	0.254		0.033	100	
NCSHC 19004	VTi Pig Iron	2.38	2.12	1.28	0.069	0.0077	0.039	0.028	0.070	0.40	0.314		0.034	100	
NCSHC 19007	Nodular Cast Iron	2.855	2.615	0.977	0.050	0.021	0.0433	0.032	0.046	0.536	0.106		0.036	100	
NCSHC 19008	Nodular Cast Iron	2.486	2.529	0.734	0.080	0.015	0.0425	0.030	0.044	0.394	0.096		0.035	100	
NCSHC 19010	VTi RE Spherulitic Iron	2.69	2.92	0.79	0.029	0.023	0.227	0.025	0.042	0.236	0.109	0.0016		100	
NCSHC 19016	VTi Pig Iron	2.21	3.78	0.420	0.014	0.012	0.040	0.032	0.047	0.310	0.066		0.037	100	
NCSHC 19017	VTi Pig Iron	2.77	2.52	0.570	0.015	0.014	0.042	0.031	0.046	0.356	0.072		0.037	100	
NCSHC 19018	VTi Pig Iron	2.70	3.10	0.625	0.024	0.011	0.043	0.031	0.049	0.405	0.125		0.035	100	
		Ca	Mg	RE											
NCSHC 19002	VTi Pig Iron	0.0079													
NCSHC 19004	VTi Pig Iron	0.0073													
NCSHC 19007	Nodular Cast Iron		0.036	0.040											
NCSHC 19008	Nodular Cast Iron		0.0106	0.0185											
NCSHC 19010	VTi RE Spherulitic Iron		0.028	0.040											
NCSHC 19016	VTi Pig Iron		0.090	0.099											
NCSHC 19017	VTi Pig Iron		0.067	0.070											
NCSHC 19018	VTi Pig Iron		0.071	0.083											
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Mo	Co	Sn	
NCSHC 28012	Cast Iron	3.06	1.36	0.77	0.071	0.094	0.0325	0.0415	0.068		0.032			150	
NCSHC 28013	Cast Iron	2.65	2.29	0.575	0.450	0.098	0.041	0.0675	0.086		0.041			150	
NCSHC 28014	Cast Iron	3.05	2.67	0.57	0.300	0.079	0.022	0.018	0.194					150	
NCSHC 28015	Cast Iron	3.58	3.02	0.97	0.080	0.014	0.0075	0.0125	0.091					150	

Section 1 Iron, Steel & Alloy(Chip)

1)Pure Iron, Pig Iron, Cast Iron

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Mo	Sn	
NCSHC 28025	High Phosphorus Cast Iron	2.98	1.80	0.698	1.80	0.087	0.081		0.201						150
NCSHC 28026	High Phosphorus Cast Iron	2.91	1.81	0.702	1.91	0.124	0.086		0.245						150
NCSHC 28028	Alloy Cast Iron	3.11	1.71	0.605	0.250	0.088	0.280		1.03		0.023	0.0494			100
NCSHC 28029	Alloy Cast Iron	2.84	1.91	0.85	0.086	0.0995	0.316		0.865		0.017	0.033			100
NCSHC 28034	Alloy Cast Iron	3.15	1.67	0.795	0.321	0.082	0.464		1.04			0.053	0.515		100
NCSHC 28035	Alloy Cast Iron	3.15	1.44	0.685	0.49	0.076			0.915						100
NCSHC 28041	Rare Earth Cast Iron	1.59	2.13	0.44	0.067	0.004	0.052		0.024						150
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	S	Si	Mn	P	Cr	Ni	Mo	Nb	Mg	Cu	Σ RE	Ce	
NCSHC 28054	Alloy Cast Iron	3.01	0.011	2.03	0.645	0.188	0.619	1.19	0.355	0.095	0.047				100
Number	Name	Chemical Composition(Percent)									Unit Size (in g)				
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo					
NCSHC 37001	High Chromium Cast Iron	3.40	1.35	0.89	0.060	0.054	13.54	0.63	1.22	1.03				80	
NCSHC 37002	High Chromium Cast Iron	3.42	1.05	0.71	0.058	0.064	8.93	0.23	0.90	1.74				80	
NCSHC 37003	High Chromium Cast Iron	2.95	1.32	1.72	0.062	0.034	15.39	1.05	1.06	1.12				80	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Mg	R _E	Bi		
NCSHC 37005	R _E -Mg Spherulitic Iron	1.92	3.36	0.955	0.041	0.0064			0.181	0.128	0.073	0.059		80	
NCSHC 37008	R _E -Mg Spherulitic Iron	2.59	3.08	0.373	0.042	0.012			0.288	0.514	0.014	0.011		80	
NCSHC 37010	Cast Iron	3.63	2.82	0.762	0.187	0.070								80	
NCSHC 37011	Cast Iron	3.73	2.58	0.565	0.117	0.067								80	
NCSHC 37013	Wrought Iron	2.11	1.70	0.353	0.167	0.139	0.119						0.0025	80	
NCSHC 37018	Manganese Spherulitic Iron	2.78	5.96	6.80	0.12	0.0027					0.049	0.041		80	
NCSHC 37019	Manganese Spherulitic Iron	3.06	5.80	6.72	0.11	0.0041					0.054	0.049		80	
NCSHC 37020	Manganese Spherulitic Iron	2.88	3.75	6.40	0.11	0.0035					0.068	0.047		80	
NCSHC 37021	Manganese Spherulitic Iron	2.79	6.58	8.77	0.10	0.0060					0.028	0.045		80	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Co				
NCSHC 28057	Nickel-iron	2.15	4.10	0.065	0.020	0.235	2.77	12.25	0.022	0.034	0.226			75	
NCSHC 28058	Nickel-iron	2.87	2.07	0.072	0.110	1.00	1.68	10.19	0.033	0.027	0.236			75	
NCSHC 28059	Nickel-iron	2.17	2.72	0.066	0.014	0.276	1.71	13.96	0.038	0.027	0.320			75	

Section 1 Iron, Steel & Alloy(Chip)

1)Pure Iron, Pig Iron, Cast Iron

Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Mg	R _e	Bi	
NCSHC37029	Pig Iron	2.15	2.69	1.08	0.451	0.068	0.221		0.752					100
NCSHC37030	Pig Iron	2.22	2.20	0.869	0.339	0.101	0.142		0.501					100
NCSHC37032	Pig Iron	2.28	1.34	0.358	0.086	0.161	0.028		0.041					100
NCSHC37034	Pig Iron	3.73	2.58	0.565	0.117	0.067								100
NCSHC37035	Pig Iron	3.75	2.15	0.730	0.152	0.068								100
NCSHC37036	Cast Iron	1.67	1.90	1.05	0.085	0.024	0.055					0.0034		100
NCSHC37037	Cast Iron	1.90	2.34	0.780	0.110	0.055	0.024					0.0038		100
NCSHC37038	Cast Iron	2.01	1.44	0.677	0.057	0.115	0.113					0.0015		100
NCSHC37039	Cast Iron	2.04	3.37	1.34	0.479	0.038	0.197		0.642					100
NCSHC37040	Cast Iron	2.15	2.69	1.08	0.451	0.068	0.221		0.752					100
NCSHC37041	Cast Iron	2.22	2.20	0.869	0.339	0.101	0.142		0.501					100
NCSHC37042	Cast Iron	2.04	1.86	0.670	0.226	0.103	0.054		0.176					100
NCSHC37043	Cast Iron	2.28	1.34	0.358	0.086	0.161	0.028		0.041					100
NCSHC37051	Cast Iron	2.69	0.59	0.65	0.072	0.088	10.51	0.43	0.63	0.50				50
		V	Ti											
NCSHC37051	Cast Iron	0.56	0.013											
Number	Name	Chemical Composition(Percent)							Unit Size (in g)					
		C	Si	Mn	P	S	B							
NCSHC39001	Cast Iron	2.85	2.48	0.38	0.081	0.096							100	
NCSHC39002	Cast Iron	2.81	1.71	0.57	0.062	0.134							100	
NCSHC39003	Cast Iron	2.95	1.49	0.26	0.143	0.085							100	
NCSHC39004	Cast Iron	2.78	2.17	0.78	0.066	0.082							100	
NCSHC39008	Cast Iron	2.59	2.17	0.859	0.187	0.093							100	
NCSHC39009	Cast Iron	2.47	3.33	1.56	0.318	0.057							100	
NCSHC39010	Cast Iron	2.65	1.29	0.331	0.113	0.134							100	
NCSHC39011	Boron Cast Iron	2.96	1.67	0.57	0.082	0.058	0.061						100	
NCSHC39013	Boron Cast Iron	2.86	2.35	0.56	0.106	0.052	0.101						100	

Section 1 Iron, Steel & Alloy(Chip)

1)Pure Iron, Pig Iron, Cast Iron

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Mo	Sn	
NCSHC41002	DT4	0.023	0.075	0.178	0.016	0.009				0.309					150
NCSHC41010	Cast Iron	2.64	1.49	0.540	0.089	0.029	0.086	0.030	0.056		0.011	0.024	0.021		150
NCSHC41011	Cast Iron	2.64	2.23	0.725	0.177	0.033	0.151	0.035	0.146		0.014	0.031	0.105		150
NCSHC41012	Cast Iron	2.52	3.86	1.24	0.635	0.032	0.115	0.037	0.114		0.017	0.033	0.071		150
			As	Sb	Pb	Ali									
NCSHC41002	DT4				0.003										
Number	Name	Chemical Composition(Percent)						Unit Size (in g)							
		C	Si	Mn	P	S									
NCSHC93001	pig iron	4.01	1.49	1.15	0.097	0.069		100							
Numberw	Name	Chemical Composition(Percent)												Unit Size (in g)	
		C	S	Si	Mu	P	Cr	Ni	Mo	Cu	Ti	Σ Re	V*		
NCSHC93002	Alloy cast iron	1.82	0.097	3.54	1.84	0.072	0.6	0.95	0.16	0.24	0.46	0.024	0.2	100	
NCSHC93003	Alloy cast iron	2.4	0.084	2.47	1.19	0.072	0.97	0.23	0.11	2.18	0.13	0.025	0.16	100	
NCSHC93004	Alloy cast iron	3.28	0.018	2	0.48	0.34	0.21	0.33	1.1	0.82	0.035	0.01	0.06	100	
NCSHC93005	Alloy cast iron	2.76	0.058	1.37	0.69	0.14	0.39	0.59	0.65	1.36	0.15	0.007	0.3	100	
NCSHC93006	Alloy cast iron	2.64	0.079	1.21	0.29	0.43	1.92	2.65	0.25	0.35	0.029	0.044	0.02	100	
NCSHC93007	Alloy cast iron	3.94	0.028	0.82	0.14	0.058	0.14	1.56	0.42	0.49	0.08	0.027	0.58	100	

Section 1 Iron, Steel & Alloy(Chip)

2)Non-Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Al _t	Ti _t			
NCSHC 11101	Carbon Steel,10 #	0.127	0.219	0.481	0.017	0.024	0.0058	0.015	0.257								150
NCSHC 11102	60Mn	0.56	0.72	0.69	0.016	0.004	0.102	0.60	0.041								150
NCSHC 11102a	60Mn	0.61	0.24	0.82	0.023	0.014	0.015	0.028	0.016								150
NCSHC 11103	Carbon Steel	0.183	0.277	0.622	0.029	0.011	0.028	0.033	0.185								150
NCSHC 11110	Carbon Steel,25 #	0.239	0.187	0.552	0.014	0.018	0.026	0.039	0.202								150
NCSHC 11110a	Carbon Steel,25 #	0.242	0.260	0.506	0.014	0.023	0.078	0.048	0.119								150
NCSHC 11111	Easy Cutting Steel	0.188	0.114	0.64	0.015	0.119	0.016	0.037	0.031								150
NCSHC 11111a	Easy Cutting Steel	0.72	0.22	0.37	0.13	0.13											150
NCSHC 11111b	Easy Cutting Steel	0.09	0.27	0.96	0.094	0.12	0.090	0.049	0.091								150
NCSHC 11112	Carbon Steel,20 #	0.183	0.105	0.632	0.007	0.016	0.172	0.108	0.106								150
NCSHC 11115	Carbon Steel,15 #	0.136	0.054	0.317	0.007	0.011	0.026	0.017	0.028								150
NCSHC 11116	15Mn	0.156	0.277	0.879	0.015	0.0105	0.058	0.054	0.124								150
NCSHC 11118	Carbon Steel	0.23	0.25	0.55	0.026	0.0035											150
NCSHC 11119	65Mn	0.68	0.30	1.11	0.018	0.009	0.066	0.037	0.11								150
NCSHC 11120	Carbon Steel,35 #	0.338	0.262	0.555	0.016	0.014	0.155	0.072	0.140								150
NCSHC 11121	25MnSi	0.234	0.508	1.33	0.021	0.029	0.056	0.046	0.067								150
NCSHC 11122	20MnSi	0.201	0.748	1.32	0.026	0.027											150
NCSHC 11124	Carbon Steel	0.109	0.520	0.750	0.034	0.010	0.206	0.121	0.243	Als0.031	0.254	Tis0.015	0.036	0.016			150
NCSHC 11125	Carbon Steel	0.341	0.416	0.923	0.051	0.010	0.069	0.143	0.187	Als0.067	0.136	Tis0.054	0.072	0.055			150
NCSHC 11126	Carbon Steel	0.664	0.164	1.25	0.071	0.028	0.073	0.240	0.142	Als0.097	0.077	Tis0.093	0.099	0.093			150
NCSHC 11127	Carbon Steel	1.03	0.176	1.63	0.086	0.030	0.063	0.320	0.122	Als0.171	0.031	Tis0.154	0.174	0.156			150
NCSHC 11128	Carbon Steel	1.23	0.805	1.87	0.093	0.032	0.321	0.445	0.082	Als0.202	0.011	Tis0.263	0.206	0.266			150
NCSHC 11130	Carbon Steel	0.157	0.114	0.211	0.034	0.037	0.12	0.066	0.047	0.045	0.163	0.071					150
NCSHC 11132	Carbon Steel	0.464	0.814	0.376	0.062	0.043	0.20	0.36	0.295	0.131	0.156	0.157					150
NCSHC 11133	Carbon Steel	0.582	0.389	0.891	0.050	0.019	0.16	0.18	0.227	0.056	0.023	0.083					150
NCSHC 11134	Carbon Steel	0.741	0.821	1.39	0.012	0.056	0.016	0.016	0.0154	0.0025	0.157	0.006					150
Number	Name	Chemical Composition(Percent)										Unit Size (in g)					
		C	Si	Mn	P	S	Cr	Ni	Cu	As							
NCSHC 13101	Carbon Steel	0.725	0.24	1.28	0.016	0.030											150
NCSHC 13102	Carbon Steel	0.295	0.255	0.506	0.019	0.030	0.0062	0.0039	0.005								100
NCSHC 13103	Carbon Steel	0.409	0.261	0.629	0.0127	0.032	0.0076	0.0073	0.0087								100
NCSHC 13104	Carbon Steel	0.239	0.242	0.490	0.014	0.024	0.013	0.015	0.017								100
NCSHC 13105	Carbon Steel	0.153	0.222	0.457	0.0062	0.026	0.013	0.010	0.023								100
NCSHC 13106	Carbon Steel	0.480	0.271	0.653	0.016	0.028	0.0088	0.0055	0.0061								100
NCSHC 13107	Carbon Steel,30 #	0.30	0.26	0.51	0.019	0.030	0.0061	0.0038	0.0054								100
NCSHC 13108	Carbon Steel,40 #	0.41	0.26	0.63	0.013	0.032	0.0076	0.0074	0.0087								100
NCSHC 13109	Carbon Steel,25 #	0.24	0.24	0.49	0.014	0.024	0.013	0.015	0.017	0.0022							100
NCSHC 13110	Carbon Steel,15 #	0.15	0.22	0.46	0.0062	0.026	0.013	0.010	0.023	0.0034							100
NCSHC 13111	Carbon Steel,60 #	0.59	0.25	0.73	0.0098	0.025	0.014	0.008	0.015	0.0019							100
NCSHC 13112	Carbon Steel,50 #	0.48	0.27	0.65	0.016	0.028	0.009	0.006	0.006	0.0011							100
NCSHC 13114	Carbon Steel,45 #	0.47	0.26	0.70	0.019	0.030	0.008	0.004	0.006	0.005							100
NCSHC 13116	Carbon Steel	0.42	0.36	1.11	0.084	0.049											100
NCSHC 13118	Carbon Steel	0.72	0.66	0.56	0.063	0.010											100
NCSHC 13121	Carbon Steel	0.33	0.62	0.41	0.036	0.012											100

Section 1 Iron, Steel & Alloy(Chip)

2)Non-Alloy Steel

Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Ni	Cr	Cu	As	Als			
NCSHC 13122	Carbon Steel	0.29	1.43	1.16	0.017	0.012	0.008	0.015	0.006	0.0022	0.063	100		
NCSHC 13124	Carbon Steel	0.60	0.31	0.89	0.018	0.017	0.007	0.013	0.006	0.0022	0.056	100		
NCSHC 13125	Carbon Steel	0.68	0.36	0.61	0.017	0.014	0.004	0.012	0.005	0.0022	0.031	100		
NCSHC 13126	Carbon Steel	0.71	0.30	1.02	0.020	0.017	0.005	0.013	0.006	0.0023	0.040	100		
NCSHC 13127	Carbon Steel	0.71	0.33	1.29	0.019	0.010	0.007					100		
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni						
NCSHC 14101	Carbon Steel	0.090	0.154	0.403	0.0146	0.049	0.020	0.026				100		
NCSHC 14102	Carbon Steel	0.542	0.140	0.520	0.0205	0.022	0.237	0.031				100		
NCSHC 14103	Carbon Steel	0.343	0.305	0.696	0.0231	0.037	0.056	0.130				100		
NCSHC 14104	Carbon Steel	0.477	0.203	0.674	0.0244	0.031	0.0023	0.036				100		
NCSHC 14105	Carbon Steel	0.596	0.303	0.699	0.0193	0.0085	0.0052	0.026				100		
NCSHC 14106	Carbon Steel	0.205	0.346	0.291	0.0320	0.020	0.155	0.010				100		
NCSHC 14107	Carbon Steel	0.219	0.377	0.280	0.0405	0.111	0.182	0.022				100		
Numberw	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu					
NCSHC 15101	Carbon Steel	0.118	0.252	0.483	0.0132	0.017	0.020	0.020	0.022			150		
NCSHC 15103	Carbon Steel	0.454	0.283	0.636	0.0223	0.010	0.016	0.0083	0.009			150		
NCSHC 15104	Carbon Steel	0.265	0.282	0.590	0.0066	0.016	0.016	0.028	0.012			100		
NCSHC 15105	Carbon Steel	0.467	0.295	0.624	0.027	0.012						100		
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S								
NCSHC 16101	Carbon Steel	0.472	0.261	0.657	0.0136	0.012						150		
NCSHC 16102	Carbon Steel	0.206	0.238	0.551	0.0103	0.009						150		
NCSHC 16103	Carbon Steel	0.343	0.276	0.636	0.0144	0.010						150		
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu					
NCSHC 18101	Carbon Steel	0.168	0.318	0.605	0.028	0.019	0.315	0.275	0.308			150		
NCSHC 18102	Carbon Steel	0.585	0.564	0.748	0.052	0.042	0.100	0.097	0.116			150		
NCSHC 18103	Carbon Steel	0.474	0.269	0.658	0.023	0.024	0.246	0.181	0.175			150		
NCSHC 18104	Carbon Steel	0.324	0.252	0.573	0.033	0.016	0.124	0.036	0.203			150		
NCSHC 18105	20MnSi	0.219	0.545	1.54	0.046	0.035	0.031	0.029	0.094			100		
NCSHC 18106	Q235 Steel	0.203	0.254	0.418	0.011	0.022	0.033	0.022	0.078			100		
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	Ti		Co	
NCSHC 19101	Carbon Steel	0.458	0.347	0.655	0.0195	0.016						100		
NCSHC 19102	Carbon Structure Steel	0.73	0.243	1.22	0.014	0.030	0.015	0.029	0.078	0.012	0.0034	0.038	100	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu					
NCSHC 20104	Carbon Steel	0.181	0.294	0.147	0.0084	0.060	0.290	0.107	0.083			100		
NCSHC 20106	Carbon Steel	0.341	0.194	0.585	0.012	0.028	0.220	0.055	0.209			100		
NCSHC 20108	Carbon Steel	0.303	0.323	0.649	0.022	0.012	0.059	0.033	0.114			100		
NCSHC 20112	Carbon Steel	0.484	0.297	0.611	0.022	0.0082	0.052	0.0451	0.088			100		
NCSHC 20113	20MnSi	0.199	0.595	1.46	0.024		0.143	0.079	0.157			100		
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	W		Mo	Sn
NCSHC 21101	Carbon Steel	0.113	0.239	0.452	0.011	0.012	0.027	0.026	0.079				100	
NCSHC 21102	Carbon Steel	0.228	0.279	0.516	0.020	0.021	0.071	0.029	0.080				100	
NCSHC 21103	Carbon Steel	0.449	0.317	0.660	0.019	0.014	0.066	0.033	0.088	0.012	0.0055	0.0093	0.0114	100
NCSHC 21104	20MnSi	0.205	0.759	1.376	0.0225	0.0268	0.108	0.096	0.121		0.033	0.036	100	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V		Ti	
NCSHC 22101	Carbon Steel	0.091	0.266	0.569	0.0123	0.031	0.093	0.241	0.196	0.095	0.011	0.0098	100	
NCSHC 22102	Carbon Steel	0.188	0.150	0.461	0.0269	0.052	0.128	0.175	0.268	0.048	0.0048	0.028	100	
NCSHC 22103	Carbon Steel	0.338	0.475	0.856	0.038	0.012	0.270	0.042	0.053	0.0079	0.0026	0.0030	100	

Section 1 Iron, Steel & Alloy(Chip)

2)Non-Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Mo	Co	Sn	
NCSHC 28104	Carbon Steel	0.327	0.300	0.511	0.0214	0.023	0.024	0.036	0.212	0.051		0.0060	0.0011	0.049	100
NCSHC 28106	Carbon Steel	0.736	0.292	0.673	0.0320	0.019	0.0064	0.010	0.028	0.036		0.0031	0.0076	0.0013	100
NCSHC 28107	Carbon Steel	0.523	0.287	0.726	0.0101	0.017	0.026	0.022	0.030	0.021		0.0025	0.0077	0.00085	100
NCSHC 28108	Carbon Steel	0.090	0.153	0.600	0.0165	0.025	0.0125	0.0090	0.021						100
NCSHC 28110	Carbon Steel	0.204	0.253	0.441	0.028	0.025	0.012	0.0059	0.0215						100
NCSHC 28112	Carbon Steel	0.302	0.206	0.503	0.0350	0.0165	0.011	0.0078	0.028						100
NCSHC 28113	Carbon Steel	0.463	0.262	0.638	0.0195	0.020	0.070	0.039	0.115						100
NCSHC 28114a	Carbon Steel	0.736	0.297	0.67	0.032	0.019	0.0065	0.010	0.028						100
NCSHC 28115	15Mn	0.127	0.262	0.779	0.255	0.0315	0.0105	0.010	0.0145						100
NCSHC 28116	15Mn	0.157	0.351	0.854	0.018	0.024	0.019	0.0081	0.016						100
NCSHC 28117	20Mn	0.190	0.273	0.810	0.034	0.0300	0.014	0.010	0.018						100
NCSHC 28118	70Mn	0.722	0.564	1.10	0.041	0.0255	0.202	0.096	0.109						100
NCSHC 28119	Carbon Steel	0.620	0.408	0.749	0.031	0.0255	0.333	0.227	0.127						100
NCSHC 28121	45Mn	0.422	0.298	1.631	0.015	0.017	0.0115	0.021	0.014						100
NCSHC 28123	Carbon Steel	0.152	0.175	0.491	0.019	0.019	0.027	0.030	0.108						150
NCSHC 28125	Carbon Steel	0.327	0.304	0.515	0.0079	0.026									150
NCSHC 28127	Carbon Steel	0.170	0.475	1.00	0.027	0.018	0.018	0.019	0.029						150
NCSHC 28128	Ship Construction Steel	0.157	0.351	0.854	0.018	0.024	0.019	0.0081	0.016						100
NCSHC 28129	Ship Construction Steel	0.190	0.273	0.810	0.034	0.030	0.014	0.010	0.018						100
			As	Sb	Pb	Bi									
NCSHC 28104	Carbon Steel	0.010	0.012	0.00062	<0.00001										
NCSHC 28106	Carbon Steel	0.0094	0.0010	0.00062	<0.00001										
NCSHC 28107	Carbon Steel	0.0030	0.00061	0.000027	<0.00001										
Number	Name	Chemical Composition(Percent)								Unit Size (in g)					
		C	Si	Mn	P	S	Cr	Ni	Cu						
NCSHC 31103	Carbon Steel	0.274	0.300	0.580	0.014	0.0064	0.08	0.056	0.082	100					
NCSHC 31109	Carbon Steel	0.683	0.432	0.971	0.0452	0.0163	0.288	0.450	0.098	100					
Number	Name	Chemical Composition(Percent)								Unit Size (in g)					
		C	Si	Mn	P	S	Cr	Ni	Cu						
NCSHC 37101	Carbon Steel	0.518	0.344	0.616	0.025	0.0063	0.050	0.040		100					
NCSHC 37102	Carbon Steel	0.139	0.152	0.601	0.024	0.030	0.042	0.042	0.151	100					
NCSHC 37103	Carbon Steel	0.170	0.224	0.407	0.036	0.049	0.052	0.044	0.127	100					
NCSHC 37104	Carbon Steel	0.349	0.343	0.603	0.015	0.022	0.016	0.029	0.050	100					
NCSHC 37105	Carbon Steel	0.659	0.275	0.742	0.012	0.0074	0.017	0.056	0.113	100					
NCSHC 37106	Carbon Steel	0.168	0.270	0.510	0.013	0.027				100					
NCSHC 37107	Carbon Steel	0.236	0.274	0.595	0.019	0.022				100					
NCSHC 37108	Carbon Steel	0.168	0.270	0.510	0.013	0.027	0.222	0.052	0.118	100					
NCSHC 37109	Carbon Steel	0.308	0.232	0.517						100					

Section 1 Iron, Steel & Alloy(Chip)

2)Non-Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	W	Mo	Co	
NCSHC41102	Carbon Steel	0.652	0.160	0.416	0.038	0.050	0.054	0.028	0.140	0.040	0.003		0.007		150
NCSHC41109	Carbon Steel	0.064	0.601	0.246	0.0082	0.044	0.012	0.035	0.072	0.173	0.0012		0.0061	0.009	150
NCSHC41111b	Carbon Steel	0.233	0.254	0.404	0.011	0.016	0.121	0.031	0.132						100
NCSHC41113	Carbon Steel	0.166	0.198	0.533	0.032	0.024	0.005	0.009	0.007		0.0007	0.0042	0.0047		150
NCSHC41116	Carbon Steel	0.354	0.305	0.608	0.021	0.0105	0.031	0.021	0.118	0.014	0.002				150
NCSHC41116c	Carbon Steel	0.364	0.250	0.572	0.010	0.0089	0.038	0.048	0.110						100
NCSHC41117	Carbon Steel	0.433	0.226	0.631	0.016	0.0135	0.027	0.021	0.108	0.044	0.001				150
NCSHC41119	Carbon Steel	0.528	0.287	0.665	0.020	0.010	0.029	0.023	0.081		0.002				100
NCSHC41120	Carbon Steel	0.202	0.293	0.452	0.012	0.0125	0.056	0.031	0.074		0.002				150
NCSHC41121	Carbon Steel	0.092	0.125	0.315	0.015	0.041									150
NCSHC41122	Carbon Steel	0.158	0.221	0.459	0.011	0.012									150
NCSHC41123	Carbon Steel	0.083	0.107	0.275	0.0097	0.038	0.056	0.032	0.089		(0.001)				150
NCSHC41124	Carbon Steel	0.178	0.311	0.420	0.018	0.0135	0.047	0.029	0.074		(0.003)				150
NCSHC41125	Carbon Steel	0.811	0.582	1.11	0.066	0.011	0.060	0.260	0.292		(0.005)				150
NCSHC41126	Carbon Steel	0.420	0.249	0.610	0.048	0.074	0.186	0.186	0.205		(0.003)				150
NCSHC41128	Carbon Steel	0.642	0.287	0.673	0.029	0.0042					(0.003)				150
NCSHC41129	Carbon Steel	0.587	0.265	0.641	0.018	0.011	0.022	0.021	0.087		0.001				150
NCSHC41130	Carbon Steel	0.706	0.297	0.508	0.0195	0.010	0.063	0.053	0.078		0.001				150
NCSHC41132	20Mn Si	0.207	0.536	1.45	0.029	0.012	0.034	0.035	0.082						150
NCSHC41133	35Si Mn	0.335	0.612	1.33	0.020	0.0085	0.032	0.030	0.068		0.0020				150
NCSHC41134	Carbon Steel	0.112	0.367	0.644	0.033	0.017	0.426	0.033	0.030						100
NCSHC41135	Carbon Steel	0.437	0.612	0.533	0.031	0.033	0.189	0.229	0.185						100
			Sn	As	Sb	Pb	Ns	Al	Nt						
NCSHC41102	Carbon Steel			0.015	(<0.001)			0.007							
NCSHC41109	Carbon Steel	0.0074	0.010					0.002							
NCSHC41116	Carbon Steel							0.005							
NCSHC41117	Carbon Steel							0.005							

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)														Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo			
NCSHC 11201	MoB	0.24	0.63	0.17	0.010	0.005	0.073	0.034	0.052	0.65							150
NCSHC 11202	5CrNiMo	0.58	0.34	0.80	0.031	0.004	0.54	1.71								0.29	150
NCSHC 11203	4Cr ₃ SiMnWV	0.45	1.07	1.54	0.036	0.004	2.78	0.10	0.20		0.29		0.95				150
NCSHC 11204	Cr ₂ SiMoTi	0.14	1.33	0.48	0.021	0.006	2.17	0.24	0.18			0.19				0.52	150
NCSHC 11205	38CrWVAI	0.32	0.41	0.26	0.031	0.011	1.64	0.13	0.061	0.17	0.20						150
NCSHC 11206	38CrMoAl	0.42	0.48	0.68	0.069	0.005	1.67	0.28	0.055	0.77						0.26	150
NCSHC 11207	30CrSiMoV	0.34	0.90	0.70	0.016	0.004	1.16	0.34	0.21		0.36					0.45	150
NCSHC 11208	20Cr ₃ MoWV	0.17	0.14	0.36	0.013	0.008	2.59	0.18	0.17		0.79			0.38	0.64		150
NCSHC 11209	W ₃ CrV	1.60	0.41	0.59	0.044		0.38				0.26			2.70			100
NCSHC 11209a	W ₃ MoV	1.56	0.41	0.76	0.029	0.006	0.47				0.36			3.14			150
NCSHC 11210	3CrAl	0.43	0.75	0.24	0.013		1.35	0.020	0.020	0.62							150
NCSHC 11211	9V	1.05	0.33	0.41	0.011	0.009	0.63	0.021	0.022		0.23						150
NCSHC 11212	30CrMoWV	0.30	0.22	0.55	0.017	0.006	2.65		0.12		0.75			0.65	0.56		150
NCSHC 11213	35CrMnSiNi ₂ Mo	0.35	0.96	1.15	0.018	0.004	0.84	1.96	0.059		0.058					0.33	150
NCSHC 11214	GCr15	0.997	0.281	0.287	0.013	0.007	1.53	0.019	0.028								150
NCSHC 11222	40SiMn ₂	0.38	0.89	1.65	0.011	0.005	0.11		0.045								150
NCSHC 11222a	40SiMn ₂	0.39	0.98	1.69	0.041	0.012	0.17	0.35	0.055								150
NCSHC 11223	20MnTiB	0.18	0.24	1.42	0.026	0.007	0.020		0.026			0.054					150
NCSHC 11224	45B	0.43	0.36	1.15	0.020	0.010	0.062	0.20	0.046	0.075							150
NCSHC 11225	18CrMnTi	0.16	0.33	1.01	0.020	0.007	1.08	0.14				0.049					150
NCSHC 11226	40Cr	0.40	0.26	0.79	0.014	0.017	1.01	0.076	0.036								150
NCSHC 11227	60Si ₂ Mn	0.60	2.05	0.84	0.051	0.008	0.016	0.039	0.046								150
NCSHC 11228	15MnVN	0.18	0.23	1.38	0.015	0.011		0.30	0.18		0.091						150
NCSHC 11229	40Si ₂ V	0.44	1.66	0.74	0.018	0.006		0.20	0.13		0.14						150
NCSHC 11230	08MnPR _E	0.092	0.36	1.07	0.058	0.011											150
NCSHC 11231	14MnVTiR _E	0.22	0.36	1.60	0.067	0.009					0.067	0.10					150
NCSHC 11232	20CrMo	0.212	0.270	0.460	0.0174	0.0117	0.972		0.031							0.191	100
NCSHC 11233	60Si ₂ Mn	0.661	1.82	0.805	0.027	0.017	0.021	0.020	0.136								150
NCSHC 11234	GCr15Si Mn	0.993	0.582	0.996	0.017	0.0060	1.47	0.053	0.152							0.029	100
NCSHC 11235	Medium Low Alloy Steel	0.658	0.069	1.120	0.0044	0.0018	0.350	0.774	0.385	1.51	0.447	0.483	0.897	0.266			150
NCSHC 11236	Low alloy	0.211	0.174	1.36	0.046	0.021	0.124	0.487	0.233	0.866	0.619	0.812	1.60	0.472			150
NCSHC 11240	Alloy steel	0.747	0.46	0.801	0.014	0.012	0.212	0.036	0.05		0.1		0.121	0.088			
		Co	B	Sn	As	Ca	Pb	N	Bi	R _E	Nb	Zr	Als	Alt			
NCSHC 11201	MoB	0.008	1.21														
NCSHC 11223	20MnTiB		0.0022														
NCSHC 11224	45B		0.0052														
NCSHC 11228	15MnVN							0.009									
NCSHC 11230	08MnPR _E									0.028							
NCSHC 11231	14MnVTiR _E									0.069							
NCSHC 11233	60Si ₂ Mn	0.011			0.016												
NCSHC 11235	Medium Low Alloy Steel	0.340		0.011	0.012						0.025	0.156					
NCSHC 11240	Alloy steel	0.026		0.0046	0.0066	(0.0004)							0.012	0.016			
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Mo	B			
NCSHC 13201	90Mn ₂	0.91	0.056	2.09	0.054	0.030	0.105	0.076	0.20	0.015							150
NCSHC 13202	09SiMnCr ₃	0.056	1.07	1.20	0.127	0.093	2.88	0.66	0.073	0.405							150
NCSHC 13203	7Cr ₂	0.70	0.041	0.28	0.083	0.064	1.45	0.93	0.12	(0.0007)							150
NCSHC 13204	09MnCr	0.097	0.29	0.87	0.011	0.096	0.76	0.29	0.034	0.073							150
NCSHC 13207	30Ml ₂ MoVTiAlB	0.294	0.070	1.48	0.036	0.009	0.037	0.019	0.035	0.029	0.025	0.023	0.038	0.011			150
NCSHC 13208	9Si ₂ MoVTiAlB	1.085	1.42	0.308	0.013	0.004	0.045	0.021	0.036	0.115	0.50	0.30	0.89	0.016			150

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)														Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Mo	B			
NCSHC13210	8SiMnMoVTiAlB	0.78	0.88	0.675	0.013	0.122	0.019	0.021	0.036	0.10	0.33	0.39	0.65	0.0058	100		
Number	Name	Chemical Composition(Percent)														Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	Mo	B			
NCSHC13212	09SiMoVTiAlB	0.045	0.46	0.396	0.054	0.069	(0.0095)	0.016	0.030	0.028	0.051	0.041	0.11	0.028	100		
NCSHC13214	Low Alloy Steel	0.395	0.792	1.84	0.146	0.018									100		
NCSHC13215	Low Alloy Steel	0.361	1.69	0.989	0.096	0.019									100		
NCSHC13216	Low Alloy Steel	0.214	0.389	1.37	0.056	0.020									100		
NCSHC13217	Low Alloy Steel	0.284	1.11	0.749	0.037	0.018									100		
NCSHC13219	Low Alloy Steel	0.520	1.03	1.04	0.0654	0.0247									100		
NCSHC13221	Low Alloy Steel	0.065	0.38	0.96	0.174		0.016				0.061	0.10			150		
Number	Name	Chemical Composition(Percent)														Unit Size (in g)	
		Nb	Zr	R _e	Co	N	Alt	Als									
NCSHC13221	Low Alloy Steel	0.165		0.014			0.085	0.081									
Number	Name	Chemical Composition(Percent)														Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	W	Mo	Co			
NCSHC14201	Low Alloy Steel	0.39	0.293	0.558	0.019	0.0105	0.84	0.035	0.215	0.047	0.007		0.193	0.023	150		
NCSHC14201a	Low Alloy Steel	0.358	0.272	0.573	0.014	0.0086	1.03	0.020	0.150				0.137		100		
NCSHC14202	Low Alloy Steel	0.118	0.405	0.433	0.017	0.012			0.421	0.389		0.519			100		
NCSHC14203	Low Alloy Steel	0.082	0.177	0.222	0.012	0.024			0.274	0.190		0.249			100		
NCSHC14204	Low Alloy Steel	0.080	0.583	0.636	0.024	0.012			0.363	0.317		0.149			100		
NCSHC14205	Low Alloy Steel	0.076	0.037	0.303	0.033	0.061			0.220	0.334		0.144			100		
NCSHC14206	Low Alloy Steel	0.089	0.389	0.540	0.013	0.022			0.314	0.465		0.089			100		
NCSHC14207	Low Alloy Steel	0.135	0.435	1.25	0.041	0.020			0.165		0.090				150		
NCSHC14208	Low Alloy Steel	0.39	1.82	0.97	0.014	0.009			0.43		0.153				150		
NCSHC14209	Low Alloy Steel	0.562	1.72	0.714	0.020	0.0054	0.173	0.201							150		
NCSHC14210	40Cr	0.445	0.308	0.659	0.027	0.0068	1.00	0.017	0.049						150		
NCSHC14211	Low Alloy Steel	0.192	0.276	1.72	0.0071	0.0022	0.283	0.194	0.311		0.093				100		
NCSHC14213	Silicon Steel	0.076	3.18	0.081	0.0090	0.023			0.066						100		
NCSHC14214	Silicon Steel	0.044	3.15	0.060	0.0081	0.025			0.162						100		
NCSHC14215	Silicon Steel	0.0032	0.477	0.256	0.080	0.0076			0.033						100		
NCSHC11241	Alloy Steel	0.185	0.377	1.32	0.016	0.0057	0.038	0.024	0.042		0.12	0.017	0.011	0.018	100		
NCSHC11242	Alloy Structure Steel	0.081	0.271	0.537	0.014	0.0073	4.37	0.037	0.046		0.032	0.037	0.446	0.011	100		
NCSHC11243	Alloy Structure Steel	0.398	0.725	1.44	0.017	0.024	0.081	0.025	0.045		0.127	0.047	0.03	0.015	100		
Number	Name	Chemical Composition(Percent)														Unit Size (in g)	
		Als	N	Ti	Ca	Alt	As	Sn	Bs	Bt							
NCSHC14201a	Low Alloy Steel	0.061															
NCSHC14213	Silicon Steel	0.031	0.0081														
NCSHC14214	Silicon Steel	0.0014	0.0040														
NCSHC14215	Silicon Steel	0.022	0.0020														
NCSHC11241	Alloy Steel	0.038			0.001	0.04	0.009	0.0045	0.0022	0.0025							
NCSHC11242	Alloy Structure Steel	0.022			(0.0004)	0.026	0.0067	0.0023									
NCSHC11243	Alloy Structure Steel	0.0023			(0.0003)	(0.004)	0.0086	0.0047									

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC 15216	ML15MnVB	0.166	0.162	1.33	0.014	0.022	0.027	0.040	0.017	0.029	0.110			0.003	100	
NCSHC 15217	Bearing Steel	1.005	0.584	0.905	0.009	0.005	0.032	0.033			0.245			0.301	100	
			B	Bi												
NCSHC 15216	ML15MnVB	0.0011														
Number	Name	Chemical Composition(Percent)												Unit Size (in g)		
		C	Si	Mn	P	S	Alt	Als	Bt	Bs	Al	N				
NCSHC 15218	Low carbon Silicon Steel	0.0045	1.54	0.247	0.010	0.0054	0.050	0.048	0.0026	0.0018					100	
NCSHC 15219	Low carbon Silicon Steel	0.0070	1.54	0.227	0.0098	0.0065	0.025	0.023	0.0026	0.009					100	
NCSHC 15220	Silicon Steel	0.094	0.83	0.51	0.163	0.0059					0.046				100	
NCSHC 15221	Silicon Steel	0.083	1.26	0.45	0.194	0.005					0.066				100	
NCSHC 15222	Silicon Steel	0.073	1.55	0.39	0.259	0.0053					0.156				100	
NCSHC 15223	Silicon Steel	0.081	1.79	0.36	0.251	0.0042					0.101				100	
NCSHC 15224	Silicon Steel	0.089	2.26	0.28	0.212	0.0048					0.130	0.0083			100	
NCSHC 15227	Silicon Steel	0.074	2.86	0.24	0.0156	0.0045					0.021				100	
NCSHC 15228	Silicon Steel	0.060	3.21	0.20	0.0146	0.0049					0.236				100	
NCSHC 15229	Silicon Steel	0.063	2.96	0.192	0.0124	0.0035					0.045	0.0118			100	
NCSHC 15231	Silicon Steel	0.038	3.66	0.154	0.0135	0.0027					0.158				100	
NCSHC 15233	Silicon Steel	0.041	4.18	0.084	0.0110	0.0033					0.124				100	
NCSHC 15234	Silicon Steel	0.0385	5.21	0.072	0.0090	0.0047					0.057				100	
NCSHC 15235	Silicon Steel	0.059	4.72	0.087	0.0085	0.0053					0.055				100	
NCSHC 15236	Silicon Steel	0.038	5.22	0.070	0.0092	0.0050					0.056				100	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	W	Mo	B		
NCSHC 16201	25SiMnMoV	0.25	0.195	2.20	0.0192	0.019	0.236	0.25	0.097	0.105				0.37	150	
NCSHC 16202	35SiMn ₂ MoV	0.332	1.626	1.691	0.0182	0.0127	0.24	0.242	0.388	0.174				0.381	150	
NCSHC 16204	37SiMn ₂ WV	0.374	0.717	1.651	0.0233	0.056	0.24	0.257	0.192	0.085		0.925	0.447		150	
NCSHC 16205	30MnMoTiB	0.30	0.443	1.442	0.0207	0.015	0.305	0.316			0.0625			0.0014	150	
NCSHC 16206	40MnWB	0.411	0.277	1.154	0.0213	0.013	0.137	0.171				0.611		0.0044	150	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	W	Mo	B		
NCSHC 16207	15SiMn ₃ Mo	0.121	1.160	3.320	0.0242	0.0490	0.215	0.201	0.210					0.560	150	
NCSHC 16208	30Mn ₂ MoV	0.310	0.300	1.970	0.0174	0.024	0.283	0.300	0.239			0.740	0.460		150	
NCSHC 16209	12CrMoV	0.106	0.320	0.701	0.0268	0.034	0.542	0.045	0.029	0.269				0.322	150	
NCSHC 16210	20SiMnV	0.192	0.636	1.52	0.0207	0.021	0.255	0.202		0.110					150	
NCSHC 16211	25Cr ₂ Mo2V	0.254	0.303	0.753	0.0209	0.012	2.34	0.035	0.029	0.422			1.02		150	
NCSHC 16212	30Mn ₂ MoTi	0.301	0.309	1.56	0.0182	0.013	0.188	0.175			0.052		0.361		150	
NCSHC 16213	40MnVB	0.425	0.364	1.22	0.0158	0.0020	0.072	0.035	0.034	0.106				(0.0002)	150	

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)														Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo			
NCSHC17201	SiMnB	0.0332	1.50	0.230	0.0128	0.022	0.473	0.078	0.320	0.066	0.050	0.247					100
NCSHC17203	SiMnB	0.283	1.09	0.438	0.0220	0.023	0.300	0.224	0.247		0.144	0.171					100
NCSHC17204	SiMnB	0.392	0.626	1.08	0.0285	0.019	0.174	0.241	0.030		0.023	0.116					100
NCSHC17208	Low Alloy Steel	0.082	0.694	0.952	0.0155	0.057	0.371	1.80	0.034							0.569	100
NCSHC17211	Low Alloy Steel	0.510	0.148	0.151	0.0283	0.007	1.70	0.522	0.27							0.445	100
NCSHC17212	Low Alloy Steel	0.290	0.579	0.770	0.0143	0.012	1.28	0.858	1.06							0.298	100
NCSHC17213	Low Alloy Steel	0.75	0.232	1.428	0.0128	0.0068	0.88	0.984			0.238	0.432					100
NCSHC17214	Low Alloy Steel	0.619	0.303	0.884	0.0134	0.0148	0.935	1.492			0.430	0.643					100
NCSHC17215	Low Alloy Steel	0.553	0.420	0.646	0.0137	0.0059	0.978	2.482			0.699	0.927					100
NCSHC17216	Low Alloy Steel	0.156	0.557	0.481	0.0238	0.0092	1.652	3.47			0.114	1.455					100
NCSHC17217	Low Alloy Steel	0.055	0.808	0.477	0.031	0.0069	1.21	4.58			0.065	2.34					100
NCSHC17218	Low Alloy Steel	0.296	0.213	1.193	0.0117	0.002	0.702	0.431	0.42							1.05	100
NCSHC17219	Low Alloy Steel	0.672	0.216	0.382	0.0172	0.0261	0.074	0.053	0.063							0.081	100
NCSHC17224	18CrMnTi	0.184	0.351	0.981	0.0074	0.035	1.14	0.085	0.190								150
NCSHC17225	45CrNi	0.476	0.273	0.675	0.0204	0.016	0.62	1.24	0.203								150
NCSHC17226	5CrMnMo	0.558	0.507	1.47	0.0235	0.032	0.74	0.246	0.161							0.245	150
NCSHC17227	12CrMoV	0.103	0.256	0.502	0.0204	0.024	0.51	0.176	0.184		0.25					0.298	150
NCSHC17229	37SiMn ₂ WV	0.399	0.684	1.79	0.0251	0.0258	0.283	0.27	0.182							0.476	150
NCSHC17232	5CrWSi	0.503	0.592	0.376	0.0212	0.015	1.14	0.140	0.028								150
NCSHC17234	Low Alloy Steel	0.15	1.065	0.91	0.0044	0.045	1.035	0.906	0.277	0.035		0.40					150
			Nb	Zr	B	RE	Al _t	Bt									
NCSHC17201	SiMnB				0.0016		0.069	0.0067									
NCSHC17203	SiMnB				0.0041		0.132	0.0045									
NCSHC17204	SiMnB				0.0037		0.086	0.0042									
NCSHC17214	Low Alloy Steel	0.262	0.049			0.0222											
NCSHC17215	Low Alloy Steel	0.469	0.088			0.037											
NCSHC17216	Low Alloy Steel	0.735	0.132			0.0376											
NCSHC17217	Low Alloy Steel	1.143	0.121			0.043											
NCSHC17224	Low Alloy Steel					0.0069											

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Al _i	Al _s	Bt	
NCSHC17201a	Low Alloy Steel	0.087	1.41	0.234	0.0067	0.049	0.653	0.480	0.371	0.536	0.046	0.392	0.386	0.0054	100
NCSHC17203a	Low Alloy Steel	0.337	1.06	0.449	0.031	0.067	0.267	0.111	0.251	0.147	0.248	0.193	0.188	0.0057	100
NCSHC17204a	Low Alloy Steel	0.396	0.195	0.887	0.026	0.015	0.215	0.262	0.116	0.101	0.058	0.049	0.048	0.0040	100
		Bs													
NCSHC17201a	Low Alloy Steel	0.0044													
NCSHC17203a	Low Alloy Steel	0.0047													
NCSHC17204a	Low Alloy Steel	0.0032													
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Mo	Nb	B	
NCSHC18208	42CrMo	0.413	0.260	0.542	0.025	0.025	0.933	0.319	0.199				0.233		150
NCSHC18209	ZG35CrMo	0.321	0.406	0.514	0.035	0.0029	0.933	0.376	0.180				0.324		150
NCSHC18210	40Cr	0.41	0.26	0.54	0.025	0.025	0.93	0.32	0.20						100
NCSHC18211	60Si ₂ Mn	0.592	1.84	0.735	0.016	0.022			0.037						100
NCSHC18212	20CrMnTi	0.219	0.417	1.02	0.016	0.015	1.14				0.060				100
NCSHC18213	20CrMo	0.220	0.217	0.473	0.016	0.020	1.00						0.231		100
NCSHC18214	Low Alloy Steel	0.355	0.273	0.57	0.01	0.033	0.93	0.057	0.075			0.154			100
NCSHC18215	Low Alloy Steel	0.152	0.305	1.26	0.012	0.023	0.121	0.034	0.077						100
		Sn	As	Pb	Al _i	Al _s	Zn								
NCSHC18214	Low Alloy Steel		0.011	0.57	0.035	0.029									
NCSHC18215	Low Alloy Steel		0.018												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Mo	Co	B		
NCSHC19201	20Cr	0.175	0.285	0.610	0.0203	0.020	0.81								100
NCSHC19202	40Cr	0.435	0.274	0.698	0.0139	0.010	0.97								100
NCSHC19204	Axle Steel	0.444	0.280	0.680	0.010	0.030	0.013	0.025	0.037	0.011		0.036			100
NCSHC19205	09V	0.093	0.486	0.87	0.010	0.036	0.016	0.039	0.110	0.085					100
NCSHC19206	38CrMoAl	0.402	0.364	0.430	0.0154	0.009	1.51				0.198				100
NCSHC19207	27MnMoVB	0.306	0.232	1.33	0.0195	0.014				0.125	0.388		(0.0014)		100
NCSHC19208	18CrMnTi	0.192	0.299	0.975	0.0104	0.010	1.22								100

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC20201	20Cr	0.209	0.298	0.609	0.015	0.014	0.808	0.093	0.089			0.0032			0.0088	100
NCSHC20202	40Cr	0.409	0.376	0.742	0.015	0.011	1.053	0.063	0.086			0.0023			0.0088	100
NCSHC20203	20Cr	0.21	0.30	0.61	0.015	0.014	0.81	0.094	0.090							100
NCSHC20204	20Mn ₂	0.201	0.313	1.63	0.022	0.018	0.300	0.265	0.169	0.021	0.0025	0.0033	0.0081	0.043		100
NCSHC20207	15CrMnMoV	0.137	0.102	1.03	0.014	0.012	1.36	0.035	0.080	0.031	0.272	0.0045	0.032	0.910		100
NCSHC20208	35SiMn	0.374	1.15	1.26	0.019	0.011	0.113	0.034	0.085							100
NCSHC20210	Silicon Steel	0.057	3.36	0.225	0.0072	0.019	0.259	0.316	0.314						0.0036	100
NCSHC20214	15MnCrNiCu	0.123	0.314	0.674	0.022	0.024	0.782	0.387	0.254	0.011	0.0032	0.0026	0.0052	0.027		100
NCSHC20215	40CrNiMoA	0.385	0.271	0.667	0.013	0.020	0.781	1.54	0.150	0.011	0.0062	0.0038	0.0066	0.215		100
		Co														
NCSHC20204	20Mn ₂	0.019														
NCSHC20207	15CrMnMoV	0.010														
NCSHC20214	15MnCrNiCu	0.011														
NCSHC20215	40CrNiMoA	0.011														
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC21201	GCr15	1.090	0.431	0.433	0.0112	(0.0005)	1.442	0.134	0.158	0.0363		0.0074			0.060	100
NCSHC21201b	Bearing Steel	0.990	0.239	0.315	0.0065	0.0054	1.47	0.042	0.086						0.032	100
NCSHC21202	GCr ₁₅ SiMn	1.006	0.550	1.063		0.0065	1.506	0.046	0.126	0.042		0.0072			0.011	100
NCSHC21203	GCr15	1.01	0.305	0.37	0.012	(0.0004)	1.55	0.046	0.081							100
NCSHC21204	GCr15	1.019	0.151	0.338	0.020	(0.019)	1.539		0.086							100
NCSHC21205	GCr15	0.953	0.193	0.282	0.0276	0.012	1.634		0.233							100
NCSHC21206	GCr ₁₅ SiMn	0.98	0.404	0.99	0.023	0.005	1.38									100
NCSHC21207	60Si ₂ Mn	0.501	2.15	0.600	0.0149	0.0174	0.362	0.276	0.195	0.065	0.043		0.77	0.160		100
NCSHC21208	60Si ₂ Mn	0.400	2.91	0.437	0.0064	0.0029	0.159	0.064	0.064	0.113			1.18	0.012		100
NCSHC21209	60Si ₂ Mn	0.599	1.69	1.14	0.0209	0.0291	1.13	0.124	0.095	0.018	0.084		0.025	0.091		100
NCSHC21210	60Si ₂ Mn	0.706	1.10	0.857	0.0256	0.0374	0.760	0.393	0.303	0.158	0.168		0.176	0.273		100
NCSHC21211	60Si ₂ Mn	0.666	1.74	0.752	0.0144	0.0190	0.071	0.018	0.147	0.132	0.129		0.40	0.051		100
NCSHC21212	H08Mo ₂ SiA	0.087	0.827	1.90	0.0107	0.0156	0.035	0.061	0.091							100
NCSHC21215	35MoVAITiE	0.37	0.42	1.15	0.013	<0.001	0.030	0.061	0.13	0.52				1.05		100
NCSHC21218	CrMnV+Mo	0.09	0.775	9.88	0.0464	0.012	18.80	4.97	0.0396		0.024			3.10		100
NCSHC21220	CrMnV	0.09	0.82	13.56	0.100	0.026	15.89	7.114	0.080		0.027					100
NCSHC21221	20MnSi	0.218		1.28	0.020	0.025	0.239	0.094	0.136		0.094	0.028		0.061		100
		B														
NCSHC21201	GCr15		0.0273	0.023	0.025											
NCSHC21201b	Bearin Steel		0.020	0.0092												
NCSHC21202	GCr ₁₅ SiMn	0.0031	0.0107	0.0110	0.022											
NCSHC21204	GCr15		0.049													
NCSHC21205	GCr15		0.038	0.0334												
NCSHC21206	GCr ₁₅ SiMn			0.022												
NCSHC21210	60Si ₂ Mn	0.0012														
NCSHC21211	60Si ₂ Mn	0.0013														
NCSHC21218	CrMnV+Mo					0.097										
NCSHC21220	CrMnN					0.29										

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Mn	P	S	Si	Ni	Cr	Cu	Mo	W	Als	Alt	Sn	
NCSHC21222	65Mn	0.649	1.02	0.012	0.0062	0.279	0.040	0.048	0.147	0.0069	0.0019	0.0051	0.0061	0.014	100
Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		C	S	P	Si	Mn	Cr	Ni	Cu	Nb	Re	Al(s)	N		
NCSHC22201	Alloy structure steel	0.073	0.0053	0.0253	0.438	0.675	0.090	0.096	0.089	0.044	0.048	0.093	0.013	100	
NCSHC22203	Alloy structure steel	0.124	0.0045	0.0125	0.674	0.821	0.127	0.055	0.094	0.122	0.098	0.177		100	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo	
NCSHC23205	12CrNi ₃	0.124	0.183	0.527	0.021	0.021	0.740	2.82	0.195	0.052			0.202	0.141	100
NCSHC23206	30CrMnSi	0.289	1.15	0.930	0.014	0.023	0.943	0.162	0.152	0.089			0.216	0.150	100
NCSHC23208	45CrV	0.41	0.364	0.67	0.0184	0.0165	0.96	0.139	0.095						150
NCSHC23209	38CrMoAl	0.360	0.310	0.490	0.0310	0.0140	1.540	0.410	0.185	1.13				0.270	150
NCSHC23210	38CrMoAl	0.39	0.335	0.425	0.0246	0.011	1.44	0.238	0.275	0.93				0.17	150
NCSHC23211	PCrNi ₄ Mo	0.367	0.375	0.56	0.018	0.027	0.957	3.95						0.43	150
NCSHC23214	30CrMnMoTi	0.328	0.326	0.770	0.0205	0.021	1.160	0.058	0.060					0.270	150
NCSHC23215	6 [#] Si ₂ M [#] W	0.691	1.836	0.813	0.019	0.0223	0.227	0.273	0.038				1.03		150
NCSHC23217	45CrNiMoY	0.43	0.337	0.635	0.027	0.016	0.994	1.64	0.206		0.15			0.28	150
NCSHC23218	35MnWMoVB	0.33	0.40	1.02	0.032	0.024	0.18	0.26	0.17		0.25		0.50	0.137	150
NCSHC23220	12CrNiA	0.144	0.24	0.49	0.0247	0.011	0.82	2.41	0.11						150
NCSHC23221	38CrA	0.375	0.345	0.69	0.026	0.0315	1.00	0.26	0.16	0.17					150
NCSHC23222	45CrNiW	0.467	0.47	0.687	0.022	0.0248	1.03	1.515			0.146		0.693		150
NCSHC23223	30CrMnSiNi ₂	0.30	1.07	0.885	0.0197	0.0186	1.03	1.56	0.161	0.080			0.195	0.126	100
		Co	Nb	Zr	B	N	RE								
NCSHC23218	35MnWMoVB			0.0034											
Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	W	Mo			
NCSHC24202	70Si ₂ CrA	0.673	1.58	0.504	0.018	0.012	0.29	0.040	0.073					100	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	Ti	Mo	B	Bt	
NCSHC28201	20Cr	0.197	0.252	0.738	0.0195	0.015	0.785	0.026	0.029						150
NCSHC28202	40Cr	0.44	0.335	0.665	0.014	0.0055	0.998	0.053	0.741						150
NCSHC28204	35CrMo	0.390	0.304	0.558	0.029	0.0054	0.948	0.070	0.096			0.137			100
NCSHC28205	45Mn ₂	0.422	0.298	1.63	0.015	0.017	0.012	0.021	0.014						100

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Ti	W	Mo	Sn	Als		
NCSHC28206	Bearing Steel	0.993	0.205	0.284	0.011	0.0073	1.53	0.056	0.168	0.0026	0.0015	0.011	0.010	0.012	100	
NCSHC28207	Bearing Steel	1.08	0.232	0.284	0.019	0.0097	1.36	0.051	0.180	0.0030	0.0003	0.0007	0.0093	0.0029	100	
NCSHC28208	Alloy structure Steel	0.203	0.221	0.502	0.020	0.018	0.907	0.050	0.181	0.0010	0.0024	0.194		0.012	100	
NCSHC28209	Alloy structure Steel	0.202	0.225	1.02	0.017	0.011	1.21	0.047	0.141	0.0014	0.0053	0.236		0.020	100	
NCSHC28210	Alloy structure Steel	0.224	0.288	0.764	0.026	0.0083	6.21	0.452	0.175	0.0020	0.0018	0.254		0.0051	100	
NCSHC28211	Alloy structure Steel	0.265	0.312	0.934	0.013	0.014	1.13	0.082	0.148	0.070		0.011		0.018	100	
NCSHC28212	Alloy structure Steel	0.506	0.304	0.664	0.014	0.022	1.04	0.109	0.208	0.0021		0.016		0.002	100	
NCSHC28213	Anchor Chain Steel	0.202	0.271	1.19	0.015	0.014	0.082	0.128	0.223	0.024	0.0016	0.017		0.040	100	
NCSHC28214	Anchor Chain Steel	0.312	0.292	1.35	0.023	0.017	0.069	0.117	0.243	0.023	0.0022	0.010		0.040	100	
NCSHC28215	Structural Steel	0.104	0.308	0.476	0.093	0.024	0.016	0.011	0.295	(0.004)				0.0015	100	
NCSHC28216	Carbon Steel	0.162	0.21	0.373	0.019	0.015	0.129	0.137	0.091	0.0005	0.0047	0.024	0.0046	0.0018	100	
NCSHC28217	Alloy Steel	0.345	0.318	0.424	0.022	0.011	1.58	0.099	0.116	0.0036	0.0053	0.171	0.0047	0.807	100	
NCSHC28218	Alloy Steel	0.21	0.385	1.295	0.013	0.0208	0.169	0.099	0.101	0.0009	0.161	0.015	0.0054	0.054	100	
NCSHC28219	Alloy Steel	0.118	0.237	0.257	0.023	0.023	0.147	0.154	0.354	0.109	0.013	0.02	0.0048	0.101	100	
NCSHC28220	Alloy Steel	0.397	1	0.701	0.013	0.012	1.91	1.29	0.091	0.081	1.2	0.446	0.0057	0.01	100	
NCSHC28221	Alloy Steel	0.249	0.464	0.444	0.016	0.021	1.64	1.73	0.097	0.043	0.583	0.426	0.021	0.0042	100	
NCSHC28223	Line Steel	0.055	0.29	1.81	0.011	0.0024	0.283	0.201	0.205	0.022		0.116		0.026	100	
NCSHC28224	Line Steel	0.058	0.202	1.41	0.0072	0.0063	0.049	0.012	0.013	0.016		0.0014		0.026	100	
NCSHC28225	Line Steel	0.083	0.194	0.559	0.01	0.007	0.024	0.009	0.02	0.003		0.002		0.021	100	
NCSHC28226	Line Steel	0.086	0.246	1.2	0.011	0.006	0.022	0.008	0.015	0.01		0.0012		0.015	100	
NCSHC28227	Line Steel	0.105	0.325	1.31	0.0087	0.0041	0.023	0.0089	0.016	0.02		0.0013		0.022	100	
NCSHC28228	Line Steel	0.108	0.279	1.23	0.013	0.006	0.026	0.0061	0.01	0.01		0.001		0.022	100	
		Al	Co	As	V	Nb	Re	Sb	Alt	B	Zn	Ca	N			
NCSHC28206	Bearing Steel	0.0013	0.013	0.0099												
NCSHC28207	Bearin Steel	0.0021	0.013	0.0097												
NCSHC28208	Alloy Stucture Steel	0.0022	0.013		0.0025											
NCSHC28209	Alloy Stucture Steel	0.0020	0.013		0.0035											
NCSHC28210	Alloy Stucture Steel	0.0036	0.013		0.0033											
NCSHC28211	Alloy Stucture Steel	0.0019	0.012		0.0038											
NCSHC28212	Alloy Stucture Steel	0.0029	0.014		0.154											
NCSHC28213	Anchor Chain Steel	0.0019	0.011		0.0013											
NCSHC28214	Anchor Chain Steel	0.0021	0.013		0.0013											
NCSHC28215	Structural Steel		0.0057		0.0034	<0.001	0.0022									
NCSHC28216	Carbon Steel		0.0071	0.0068	0.0011			0.0019	0.0029	0.0002	0.0004					
NCSHC28217	Carbon Steel		0.0092	0.0061	0.0034			0.002	0.824	0.0003	0.02					
NCSHC28218	Carbon Steel		0.0064	0.0056	0.011			0.0019	0.061	0.0003	0.0006					
NCSHC28219	Carbon Steel		0.0093	0.0067	0.0023			0.0023	0.106	0.0003	0.0023					
NCSHC28220	Carbon Steel		0.021	0.0064	0.377			0.002	0.012	0.0013	0.0014					
NCSHC28221	Carbon Steel		0.024	0.0087	0.218			0.0056	0.0087	0.0003	0.0014					
NCSHC28223	Line Steel			0.004	0.0043	0.103			0.027			0.0009	0.0053			
NCSHC28224	Line Steel			0.0032	0.042	0.05			0.028			0.0012	0.004			
NCSHC28225	Line Steel			0.0034	0.0009	0.011			0.023			0.0017	0.0053			
NCSHC28226	Line Steel			0.0043	0.0014	0.022			0.016			0.0035	0.0059			
NCSHC28227	Line Steel			0.0033	0.038	0.035			0.023			0.002	0.0067			
NCSHC28228	Line Steel			0.0044	0.0012	0.023			0.023			0.0013	0.0074			
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC29215	Bearing Steel	0.992	0.396	0.291	0.031	0.030	0.362	0.067	0.019	0.009		0.0086	0.090	0.010	150	
NCSHC29216	Bearing Steel	0.909	0.168	1.01	0.0202	0.0051	1.00	0.066	0.046	0.188		0.011	0.013	0.013	150	
		B	Sn	As	Sb	Pb	Bt									
NCSHC29215	Bearing Steel		0.018	0.0078	0.0013	0.0005										
NCSHC29216	Bearing Steel		0.0057	0.013	0.0020	0.0011										

Section 1 Iron, Steel & Alloy(Chip)

3)Low Alloy Steel

Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Ni	Cu	V	W				
NCSHC30201	40Cr	0.42	0.325	0.614	0.0206	0.0123	0.96		0.222						150
NCSHC30202	60Si ₂ Ni ₂	0.613	1.71	0.628	0.0213	0.009	0.239	1.54	0.218						150
NCSHC30204	60Si ₂ MnW	0.638	1.502	0.834	0.0124	0.0258	0.132	0.0525	0.16		0.928				150
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Ni	Cu	V	W		Mo	Co	Sn
NCSHC31202	30CrMoSiA	0.313	1.245	0.952	0.0147	0.010	1.05								100
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V		Ti	W	Mo
NCSHC41202	GCr ₁₅	0.982	0.301	0.282	0.014	0.0061	1.52	0.42	0.064	Al _i 0.040	0.002	0.0073	0.0049	0.010	150
NCSHC41203	GCr ₁₅ SiMn	1.01	0.529	1.11	0.0135	0.005	1.50				0.005				150
NCSHC41204	Silicon Steel	0.054	2.33	0.183	0.017	0.0325				0.008	Al _i 0.005				150
NCSHC41205	Silicon Steel	0.049	3.27	0.245	0.012	0.005				0.024	Al _i 0.006				150
NCSHC41206	Silicon Steel	0.050	4.38	0.091	0.0095	0.002				0.028	Al _i 0.002				150
NCSHC41207	20Cr	0.244	0.304	0.668	0.0155	0.010	0.881				0.002				100
NCSHC41208	40Cr	0.443	0.282	0.795	0.0265	0.0105	1.004				0.003				100
NCSHC41209	45CrV	0.425	0.277	0.667	0.024	0.0090	0.973	0.083	0.146		0.175				150
NCSHC41210	45CrNiMoV	0.446	0.239	0.680	0.018	0.014	1.00	1.56	0.057		0.150		0.013	0.286	150
NCSHC41211	40CrMo	0.398	0.303	0.612	0.0225	0.012	1.11	0.139	0.162		0.006		0.016	0.229	150
NCSHC41212	38SiMnMo	0.411	1.33	1.31	0.0205	0.010								0.254	150
NCSHC41213	W4Cr ₂ MoVSiAl	0.473	0.970	0.167	0.018	0.0051	1.47				1.05		3.85	1.29	150
NCSHC41214	18Cr ₂ ni ₄ W	1.45	0.311	0.402	0.100	0.0060	1.45	4.32			0.0028		0.85		150
NCSHC41215	20MnMo	0.205	0.317	1.37	0.021	0.0079	0.137		0.129	0.028	0.002	Al _i 0.0017	0.016	0.295	150
NCSHC41216	25CrMoV	0.235	0.246	0.703	0.0072	0.0016	1.07		0.027	0.0011	0.294	Al _i 0.0029	0.0074	1.03	150
NCSHC41217	26Cr ₂ Ni ₄ MoV	0.237	0.011	0.240	0.0062	0.0062	1.62	3.87	0.038	0.0005	0.092	Al _i 0.0003	0.002	0.367	150
NCSHC41218	5CrW ₂ Si	0.489	0.633	0.263	0.017	0.0032	1.09	0.058	0.082		0.001		2.21	0.051	150
NCSHC41219b	35CrMo	0.368	0.288	0.534	0.014	0.0085	0.934	0.051	0.164					0.156	100
NCSHC41220	20CrMoA	0.188	0.272	0.538	0.0165	0.0063	0.931	0.130	0.086	0.011	0.002	Al _i 0.0049		0.202	150
NCSHC41221	25CrMoNiSiA	0.309	1.08	1.14	0.0145	0.0060	1.13	1.62	0.087		0.004				150
NCSHC41222	40CrNiMoA	0.447	0.329	0.693	0.0155	0.0145	0.741	1.31	0.197	0.008	0.003	Al _i 0.005		0.179	150
NCSHC41223	20MnV	0.184	0.306	1.44	0.025	0.0154	0.035	0.026	0.079		0.108				150
NCSHC41224	60Si ₂ Mn	0.603	1.76	0.710	0.019	0.011					(0.003)				150
NCSHC41226	5CrMnMo	0.559	0.420	1.44	0.014	0.0080	0.743	0.035	0.090	0.005	0.0055	0.0033		0.237	150
NCSHC41227	9CrSi	0.858	1.31	0.427	0.012	0.0071	0.976	0.032	0.067	0.014	0.003	0.0070		0.0077	150
NCSHC41228	CrWMn	1.00	0.238	0.925	0.0190	0.0036	1.08	0.049	0.074		0.003		1.40		150
NCSHC41229	35CrMoV	0.347	0.263	0.520	0.205	0.0062	1.14	0.059	0.070	Al _i 0.009	0.145	0.0017	0.033	0.259	100
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		Co	Nb	Sn	As	Sb	Pb	N							
NCSHC41202	GCr ₁₅	0.11		0.011	0.006	0.0013									
NCSHC41215	20MnMo	0.0090		0.018	0.0090	0.0030	0.00056	0.0092							
NCSHC41216	25CrMoV	0.0053		0.0029	0.0041	0.00097	0.00006	0.0065							
NCSHC41217	26Cr ₂ Ni ₄ MoV	0.006		0.0066	0.0038	0.0019	0.00003	0.0048							
NCSHC41220	20CrMoA				0.0077										
NCSHC41222	40CrNiMoA				0.010										
NCSHC41226	5CrMnMo	0.0083		0.0081	0.010	0.0022		0.0067							
NCSHC41227	9CrSi	0.0070		0.011	0.0085	0.0020		0.0062							
NCSHC41228	CrWMn	0.010		0.010	0.010										
NCSHC41229	35CrMoV	0.012		0.0030	0.013	0.0012		0.012							
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Ni	Cu						
NCSHC37201	40Cr	0.414	0.220	0.638	0.026	0.026	0.969	0.038	0.135						100
NCSHC37202	20Cr	0.233	0.356	0.683	0.023	0.017	0.907	0.084	0.124						100
NCSHC37203	50Cr	0.527	0.312	0.599	0.018	0.027	0.833	0.046	0.126						100

Section 1 Iron, Steel & Alloy(Chip)

4)Alloy Steel

Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC 11301	Cr ₁₈ Mn ₁₀ Ni ₅ Mo ₃	0.059	0.94	10.03	0.018	0.003	17.82	5.72						2.92	100	
NCSHC 11302	4Cr ₃ Si ₄	0.46	4.01	0.52	0.035	0.010	3.08	0.40							100	
NCSHC 11303	Cr ₂₀ Al ₅ Co ₂	0.08	0.70	0.48	0.019		20.09	0.51		5.35					100	
NCSHC 11304	Cr ₂₄ AlSi	0.11	1.34	1.08	0.020		23.27	0.13		2.08					100	
NCSHC 11307	Cr ₁₃ Ni ₅ Mn ₉	0.19	0.69	9.94	0.099	0.009	12.49	4.86	0.031						100	
NCSHC 11307a	Cr ₁₃ Ni ₅ Mn ₉	0.17	0.47	8.14	0.043	0.021	12.07	5.02	0.031		0.022				100	
NCSHC 11308	Cr ₁₃ Al ₄	0.11	1.43	0.61	0.018		13.54	0.10	0.019	4.05					100	
NCSHC 11309	Cr ₁₇ Al ₄ Si	0.09	1.95	0.55	0.019		17.32	0.13	0.019	3.34					100	
NCSHC 11310	Cr ₂₅ Al ₅	0.094	1.86	0.51	0.020		26.96	0.20	0.019	3.54					100	
NCSHC 11311	Cr ₂₀ Ni ₁₁ Mn ₆	0.19	0.71	6.52	0.022		19.32	11.18	0.044						100	
NCSHC 11312	Cr ₁₈ Ni ₁₄ Mo ₃ Ti	0.28	0.56	1.73	0.018	0.004	17.13	14.21			0.369		3.38		100	
NCSHC 11313	Cr ₁₂	2.03	0.306	0.268	0.021	0.012	12.34	0.102	0.100						100	
NCSHC 11314	1Cr ₁₈ Ni ₆ Ti	0.093	0.841	1.42	0.030	0.0049	17.61	9.77	0.098		0.041	0.320			100	
NCSHC 11315b	High Manganese Steel	1.14	0.666	12.34	0.059	0.0031	0.176	0.093	0.164		0.074		0.022		100	
NCSHC 11316	High Manganese Steel	1.11	0.683	13.95	0.044	0.0070	0.295	0.189	0.073		0.074				100	
NCSHC 11317	Cr ₁₈ Ni ₁₁ Nb	0.10	1.06	1.61	0.024	0.042	17.31	11.25	0.22						100	
NCSHC 11318	3Cr ₁₃	0.31	0.57	0.35	0.057	0.008	13.27	0.11							100	
NCSHC 11319	4Cr ₃ Si ₂	0.327	2.36	0.896	0.018	0.0084	9.11	0.129	0.068						100	
NCSHC 11320	Cr ₂₄ Ni ₇ SiN	0.26	1.29	1.21	0.018	0.0085	24.45						0.007		100	
NCSHC 11321	Cr ₇ Al ₇	0.12	1.02	0.47	0.011		7.68			7.99					100	
NCSHC 11321a	Cr ₇ Al ₇	0.15	0.66	0.73	0.037	0.037	7.09	0.52		7.06					100	
NCSHC 11324	Stainless Steel	0.060	0.762	1.14	0.021	0.0047	17.07	12.10	0.073	0.086	0.037	0.321	0.096	2.93	100	
NCSHC 11325	Stainless Steel	0.315	2.00	2.42	0.004	0.006	28.30	23.99	0.651	0.006	0.510	0.050	0.003	0.495	100	
NCSHC 11326	Stainless Steel	0.094	0.165	0.722	0.038	0.015	24.01	4.33	0.060	1.78	0.038	0.140	0.105	1.05	100	
NCSHC 11330	Stainless Steel	0.205	1.39	1.95	0.010	0.050	11.61	20.10	3.12	0.045	0.215	0.580	0.093	3.25	100	
			Co	Nb	N	Sn	As	Pb	Alt							
NCSHC 11301	Cr ₁₈ Mn ₁₀ Ni ₅ Mo ₃			0.022												
NCSHC 11303	Cr ₂₀ Al ₅ Co ₂	2.02														
NCSHC 11307a	Cr ₁₃ Ni ₅ Mn ₉	0.027														
NCSHC 11315b	High Manganese Steel	0.021					0.038									
NCSHC 11317	Cr ₁₈ Ni ₁₁ Nb	0.019	0.84													
NCSHC 11320	Cr ₂₄ Ni ₇ SiN			0.261												
NCSHC 11324	Stainless Steel	0.081														
NCSHC 11325	Stainless Steel	0.006	0.053	0.19	0.001	0.001	0.001									
NCSHC 11326	Stainless Steel	0.492	2.28	0.009	0.03	0.009	0.001									
NCSHC 11330	Stainless Steel	0.070	1.33	0.013	0.01	0.004	0.001									

Section 1 Iron, Steel & Alloy(Chip)

4)Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	Ti	Mo	N	Co	
NCSHC13302	High Manganese Steel	1.28	0.48	12.68	0.063	0.017									150
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	Ti	Mo	N	Co	
NCSHC15302	0Cr ₁₃	0.057	0.344	0.362	0.048	0.008	15.66	0.293	0.028	0.238	0.0065	0.085			100
NCSHC15307	2Cr ₁₃	0.181	0.424	0.482	0.0194	0.012	12.45	0.142	0.020	0.103	0.0068				100
NCSHC15308	1Cr ₁₈ Ni ₉ Ti	0.053	0.630	0.971	0.0214	0.006	17.35	10.13		0.15	0.69				100
NCSHC15309	Cr ₂₃ Ni ₁₃	0.100	0.667	1.24	0.0151	0.007	22.11	14.60							100
NCSHC15310	Stainless Steel	0.023	0.659	1.16	0.030	0.0019	17.35	11.13	0.314			2.12	0.046	0.104	100
NCSHC15311	alloy steel	0.838	1.05	8.00	0.038	0.020	20.50	0.821	0.145		0.275	1.98	0.026		100
NCSHC15312	alloy steel	0.170	0.684	16.13	0.020	0.0047	8.74	3.47	1.17		0.405	3.15	0.020		100
NCSHC15313	alloy steel	0.443	0.481	1.77	0.020	0.019	29.22	1.23	0.065		0.545	0.185	0.023		100
NCSHC15314	alloy steel	0.028	0.034	0.100	0.0066	0.0065	11.53	15.01	2.03		0.0024	0.511	0.025		100
NCSHC15315	alloy steel	0.116	0.675	1.14	0.030	0.095	22.93	7.03	0.209		0.117	0.151	0.065		100
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Nb	Ca	B	Sn	As	Pb	Alt	Als	Bi					
NCSHC15310	Stainless Steel							0.0039	0.0034						
NCSHC15311	alloy steel	0.205	0.00054	0.0019	0.0011	0.0116	0.0019	0.190	0.187	0.0029					
NCSHC15312	alloy steel	0.613	0.0010	0.011	0.023	0.0043	0.0020	0.040	0.038	0.0014					
NCSHC15313	alloy steel	0.024	0.0003	0.0015	0.0058	0.0050	0.0003	0.403	0.401	0.0013					
NCSHC15314	alloy steel	0.037	0.0002	0.0004	0.058	0.0015	0.0058	0.0066	0.0051	0.0004					
NCSHC15315	alloy steel	0.062	0.0004	0.0008	0.0070	0.0035	0.0020	0.021	0.019	0.0016					
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Ni	Cr	Cu	Mo	V	N	Co	As	
NCSHC18301	M ₂ Al(W ₆ Mo ₅ Cr ₄ V ₂ Al)	1.05	0.44	0.3	0.023	0.0014	0.18	4.31	0.17	5.1	1.87		0.28		100
NCSHC18302	4Cr ₄ Mn ₁₈	0.42	0.48	17.1	0.016	0.042	0.06	4.03	0.1					0.014	100
NCSHC18303	2Cr ₁₃	0.189	0.452	0.348	0.021	0.0034	0.132	12.58	0.079					0.014	100
NCSHC18304	214N	0.533	0.222	9.34	0.025	0.0059	3.92	21.14	0.159	0.057	0.066	0.42	0.08		100
NCSHC18305	318	0.254	1.31	0.547	0.023	0.0027	6.6	16.95	0.095	2.13	0.077	0.144	0.044		100
NCSHC18306	0Cr ₁₇	0.027	0.617	0.408	0.031	0.0056	0.415	16.51	0.072					0.008	100
NCSHC18307	4Cr ₉ Si ₂	0.466	2.08	0.612	0.036	0.026	0.543	8.64	0.112	0.055	0.033			0.017	100
NCSHC18308	4Cr ₁₀ Si ₂ Mo	0.355	2.56	0.425	0.035	0.023	0.346	10.53	0.128	0.798	0.051			0.017	100
NCSHC18309	3Cr ₂ W ₈ V	0.4	0.25	0.25	0.017	0.016	0.46	2.72	0.05						100
NCSHC18310	H13(4Cr ₅ MoSiV ₁)	0.34	1.17	0.4	0.017	0.01	0.15	5.3	0.08	1.18	1.04			0.029	100
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		W	Al												
NCSHC18301	M ₂ Al(W ₆ Mo ₅ Cr ₄ V ₂ Al)	6.18	0.96												
NCSHC18309	3Cr ₂ W ₈ V	8.14													
NCSHC18310	H13(4Cr ₅ MoSiV ₁)		0.06												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Mn	Si	P	S	Ni	Cr	Cu	Mo	Ti	Co	Al	V	
NCSHC41313	Stainless steel	0.085	1.63	1.29	0.025	0.016	9.95	16.98	0.940	2.74	0.418	0.300	0.585	0.036	100
NCSHC41314	Stainless steel	0.037	0.615	1.10	0.017	0.0040	4.04	15.67	2.97	0.983	0.147	0.105	0.111	0.021	100
NCSHC41315	Stainless steel	0.122	0.927	1.85	0.031	0.022	19.27	24.56	0.293	0.396	0.077	0.194	0.514	0.057	100
NCSHC41317	Stainless steel	0.053	1.03	0.571	0.032	0.00071	9.19	17.17	0.383	0.154	0.309	0.132		0.059	100
NCSHC41318	Stainless steel	0.023	1.25	0.421	0.030	0.0013	4.85	22.26	0.136	3.11	0.0014	0.047		0.038	100
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		N	Nb	Sn	W	As									
NCSHC41313	Stainless steel	0.029		(0.0034)	(0.017)	(0.0042)									
NCSHC41314	Stainless steel	0.042	0.437	(0.0018)	(0.0014)	(0.0032)									
NCSHC41315	Stainless steel	0.072		(0.0057)	(0.010)	(0.0035)									
NCSHC41317	Stainless steel		0.0095	0.013	0.018	0.0047									
NCSHC41318	Stainless steel	0.175	0.014	0.0032	0.011	0.0085									

Section 1 Iron, Steel & Alloy(Chip)

4)Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC 20301	1Cr ₂₁	0.090	0.375	0.573	0.021	0.0077	12.94	0.102	0.051	0.0037	0.022	0.0015	0.0019	0.0088	100	
NCSHC 20302	H00Cr ₂₁ Ni ₁₀	0.029	0.520	1.71	0.031	0.014	20.49	9.72	0.134	0.0035	0.034	0.0036	0.011	0.158	100	
NCSHC 20306	0Cr ₄ Ni ₂₂	0.032	0.238	0.578	0.013	0.0036	4.04	22.43	0.030	0.0024	0.0047	0.0018	0.001	0.0019	100	
NCSHC 20311	1Cr ₁₈ Ni ₉ Ti	0.079	0.878	1.42	0.028	0.0095	17.92	8.83	0.113	0.125	0.062	0.561	0.014	0.172	100	
NCSHC 20312	YoCr ₁₈ Ni ₉ MoS ₁	0.071	0.619	1.60	0.031	0.061	17.66	8.48	0.222	0.0043	0.033		0.022	0.502	100	
NCSHC 20313	Ni ₂₅ Cr ₁₈ Mo ₂ Cu ₂	0.082	0.465	0.526	0.027	0.0050	17.37	26.44	1.71	0.0099	0.023		0.031	2.63	100	
		Co	Sn	As	N											
NCSHC 20301	1Cr ₁₃	0.021	0.0056	0.0091												
NCSHC 20302	H00Cr ₂₁ Ni ₁₀	0.369	0.0060	0.0088												
NCSHC 20306	0Cr ₄ Ni ₂₂	0.011	0.0022	0.0026	0.011											
NCSHC 20311	1Cr ₁₈ Ni ₉ Ti	0.086	0.010	0.0071												
NCSHC 20312	YoCr ₁₈ Ni ₉ MoS ₁	0.176	0.012	0.0073												
NCSHC 20313	Ni ₂₅ Cr ₁₈ Mo ₂ Cu ₂	0.097	0.0070	0.0052												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC 21301	1Cr ₁₇ Ni ₂ Ti	0.126	0.560	0.563	0.0126	0.017	16.66	1.95	0.107							100
NCSHC 21302	R00Cr ₁₈ Mo ₂ Ca	0.019	0.845	0.286	0.0284	0.0141	17.45	0.235	0.082		0.027			2.11	100	
NCSHC 21305	Cr ₁₂	2.223	0.171	0.146	0.0226	0.0094	12.18	0.095	0.041		0.030		0.028	0.0067	100	
NCSHC 21306	2Cr ₁₃	0.200	0.177	0.501	0.0238	0.0160	12.49	0.256	0.009		0.0167		0.016	0.0219	100	
		Co	Sn	As	Pb	N	Ca									
NCSHC 21302	R00Cr ₁₈ Mo ₂ Ca	0.0048														
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Mn	P	S	Si	Ni	Cr	Cu	Mo	W	Als	Alt	As		
NCSHC 21309	Shape Memory Alloy	0.026	15.95	0.027	0.0008	5.21	6.69	12.04	0.086	0.257	0.099	0.047				100
		Co	Ti	V	Sn	Nb										
NCSHC 21309	Shape Memory Alloy	0.031	0.015	0.035	0.0064	0.108										
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC 23301	18Cr ₂ Ni ₄ W	0.171	0.273	0.486	0.0215	0.0188	1.726	4.22							0.994	150
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC 24312	Cr ₁₄ Mo ₄ VRE	1.067	0.254	0.098	0.014	0.0036	14.83							1.35	4.06	100
		Co	Nb	Fe	R _c											
NCSHC 24312	Cr ₁₄ Mo ₄ VRE	0.041														

Section 1 Iron, Steel & Alloy(Chip)

4)Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	W	Mo	Sn	Als	V	
NCSHC 28302	Stainless steel	0.049	0.583	0.876	0.024	0.0057	17.23	9.47	0.063	0.0034	0.042	0.0036	0.033	0.042	100
NCSHC 28303	Stainless steel	0.196	0.776	0.324	0.017	0.0043	12.24	0.086	0.012	0.022	0.0034			0.024	100
NCSHC 28304	Die Steel	0.407	1.06	0.315	0.015	0.013	5.08	0.037	0.017	(0.0038)	1.20		0.0056	0.946	100
NCSHC 28305	Stainless steel	0.322	0.613	0.83	0.018	0.017	8.63	0.148	0.47	0.004	0.016	0.0037	0.023	0.014	100
NCSHC 28306	Stainless steel	0.329	0.397	0.433	0.018	0.027	11.95	2.66	0.08	0.0031	0.026	0.0049	0.0019	0.016	100
NCSHC 28307	Stainless Steel	0.193	0.905	0.49	0.022	0.01	19.4	6.48	0.079	0.0052	0.021	0.0028	0.034	0.029	100
NCSHC 28308	Heat resisting alloy	0.392	2.41	0.508	0.019	0.022	10.09	0.247	0.093	0.0065	1.09	0.0047	0.0031	0.015	100
NCSHC 28309	Heat resisting alloy	0.54	0.433	0.321	0.016	0.014	14.75	13.68	0.079	1.88	0.466	0.0052	0.035	0.024	100
NCSHC 28310	Heat resisting alloy	0.157	0.827	0.8	0.021	0.023	13.31	13.9	0.03	2.75	0.24	0.004	0.067	0.02	100
NCSHC 28311	Heat resisting alloy	0.182	0.865	0.37	0.019	0.025	17.3	1.33	0.074	0.0032	0.023	0.004	0.0025	0.021	100
NCSHC 28312	Heat resisting alloy	0.178	0.542	2.37	0.023	0.0084	22.71	16.2	0.058	0.0034	0.0071	0.0023	0.045	0.031	100
		Co	As	Ti	Alis	Alt	B	Zn	Sb						
NCSHC 28302	Stainless steel	0.041	0.0041	0.233											
NCSHC 28303	Stainless steel	0.018	0.0022	0.0011											
NCSHC 28304	Die Steel	0.011	(0.0021)	0.0049	0.0040	0.0096									
NCSHC 28305	Stainless steel	0.019	0.0054	0.076		0.027	0.0002	0.0034	0.0018						
NCSHC 28306	Stainless steel	0.057	0.0049	0.029		0.0073		0.0018	0.0016						
NCSHC 28307	Stainless Steel	0.095	0.0046	0.206		0.037		0.0016	0.0015						
NCSHC 28308	Heat resisting alloy	0.019	0.0054	0.0032		0.0057		0.0009	0.0021						
NCSHC 28309	Heat resisting alloy	0.035	0.009	0.0011		0.038	0.0003	0.0018	0.0016						
NCSHC 28310	Heat resisting alloy	0.147	0.0041	0.0011		0.074	0.0004	0.005	0.0004						
NCSHC 28311	Heat resisting alloy	0.051	0.0051	0.0011		0.0061		0.002	0.0016						
NCSHC 28312	Heat resisting alloy	0.186	0.0038	0.051		0.053		0.0036	0.0006						
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	Al(t)	Co	
NCSHC 28313	Stainless Steel	0.039	0.425	1.07	0.037	0.016	18.31	8.19	0.399	0.027	0.106	0.002*		0.208	50
NCSHC 28314	Stainless Steel	0.021	0.414	0.94	0.034	0.0028	18.21	8.11	0.043	0.025	0.089	0.006		0.216	50
NCSHC 28315	Stainless Steel	0.11	0.78	0.841	0.024	0.0082	23.71	18.02	0.089	0.115	0.077	0.003*	0.0056	0.102	50
NCSHC 28316	Stainless Steel	0.067	0.435	1.1	0.028	0.021	16.8	10.39	0.166	2.01	0.048	0.006*	0.012	0.063	50
NCSHC 28317	Stainless Steel	0.018	0.317	1.17	0.042	0.0057	16.61	10.34	0.334	2.05	0.07	0.002*		0.185	50
NCSHC 28318	Stainless Steel	0.134	0.505	0.456	0.027	0.0067	16.26	1.78	0.127	0.152	0.074	0.002		0.051	50
NCSHC 28319	Stainless Steel	0.046	0.643	0.742	0.027	0.013	15.88	3.85	3.24	0.259	0.075	0.002		0.115	50
NCSHC 28320	Stainless Steel	0.013	0.464	1.17	0.033	0.0021	19.67	24.23	1.49	4.47	0.086	0.002*	0.024	0.096	50
		Nb	Sn	Pb	As										
NCSHC 28313	Stainless Steel		0.0051	0.0001*	0.0035										
NCSHC 28314	Stainless Steel		0.0001*	0.0001*	0.0025										
NCSHC 28315	Stainless Steel	0.016	0.0025	0.0004	0.0042										
NCSHC 28316	Stainless Steel	0.027	0.0034	0.0005	0.0037										
NCSHC 28317	Stainless Steel		0.0073	0.0001*	0.0055										
NCSHC 28318	Stainless Steel		0.0058	0.0001*	0.0064										
NCSHC 28319	Stainless Steel	0.232	0.0064	0.0002*	0.0048										
NCSHC 28320	Stainless Steel	0.042	0.0043	0.0001*	0.0053										

Section 1 Iron, Steel & Alloy(Chip)

4) Alloy Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Al	Ti	Fe	Mo	Cu	V		
NCSHC29322	Cr ₁₄	0.077	1.487	13.49	0.074	0.0166	14.00	1.63							150	
NCSHC29323	Cr ₁₃ SiAl	0.153	1.086	0.646	0.029	0.029	12.46	0.510	0.702						150	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)				
		C	Si	Mn	P	S	Cr	Ni	Mo							
NCSHC37301	High Manganese Steel	1.25	0.464	11.59	0.073	0.0056									20	
NCSHC37302b	High Manganese Steel	1.26	0.595	12.00	0.079	0.013									20	
NCSHC37303	Stainless Steel	0.032	0.78	1.45	0.026	0.019	16.14	10.30	2.28						100	
NCSHC37304	0Cr ₁₈ Ni ₉	0.075	0.77	1.44	0.033	0.025	8.56								100	
NCSHC37305	0Cr ₁₈ Ni ₁₀ Ti	0.086	0.84	1.45	0.032	0.014	17.45								100	
NCSHC37306	1Cr ₁₈ Ni ₉ Ti	0.134	0.021	1.06	0.033	0.021	17.01								100	
NCSHC37307	1Cr ₁₃	0.144	0.56	0.71	0.038	0.028	12.07								100	
NCSHC37308	2Cr ₁₃	0.232	0.82	0.80	0.042	0.027	12.42								100	
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC41301	Ni ₈₀ Cr ₂₀	0.051	1.15	0.601	0.0015	0.0023	21.50	75.10	0.012	0.080		0.221			150	
NCSHC41303	6Cr ₄ W ₂ Mo ₂	0.600	0.980	0.968	0.023	0.0079	4.45		0.084		0.938		2.14	2.44	150	
NCSHC41307c	1Cr ₁₈ Ni ₉ Ti	0.050	0.512	0.803	0.029	0.0050	18.56	9.86	0.179		0.057	0.473	0.057	0.151	100	
NCSHC41308	Cr ₁₂	2.20	0.258	0.312	0.22	0.0105	12.62	0.109	0.088		0.054			0.094	150	
NCSHC41309	2Cr ₁₃	0.334	0.519	0.211	0.025	0.0073	12.79	0.126	0.048		0.039			0.016	150	
NCSHC41310b	CrNi	0.06	0.27	0.9	0.041	0.014	18.04	8.06	0.47		0.066			0.35	150	
		Co	Sn	As	Sb	N	Fe	Alt	Als	B	N	Al*	Ti*			
NCSHC41301	Ni ₈₀ Cr ₂₀						1.23									
NCSHC41307c	1Cr ₁₈ Ni ₉ Ti	0.052	0.017	0.0067		0.015		0.083	0.084							
NCSHC41310b	CrNi	0.164	0.012	0.0061						0.0053	0.125	0.005	0.001			

Section 1 Iron, Steel & Alloy(Chip)

5)Tool Steel

Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		C	Si	Mn	P	S	Cr	Ni	Cu	V	W	Mo			
NCSHC 11401	W ₁₈ Cr ₄ V	0.71	0.33	0.33	0.024	0.006	4.10				1.44	16.13	0.14	150	
NCSHC 11401a	W ₁₈ Cr ₄ V	0.87	0.23	0.24	0.044	0.004	3.72				1.19	19.16	0.28	150	
NCSHC 11402	W ₆ Mo ₅ Cr ₄ V ₂	0.72	0.10	0.28	0.027	0.007	3.90				2.09	6.77	4.88	150	
NCSHC 11403	Cr ₁₂ W	2.00	0.297	0.294	0.049	0.0053	11.71	0.113				0.96		150	
NCSHC 11403a	Cr ₁₂ W	1.96	0.18	0.31	0.048	0.088	11.99	0.12	0.061			0.97		150	
NCSHC 11404	5CrNiMo	0.52	0.16	0.56	0.020	0.005	0.57	1.55					0.20	150	
NCSHC 11405	W ₂	1.14	0.274	0.287	0.014	0.0046	0.183	0.073	0.040			2.31		150	
NCSHC 11405a	W ₂	1.25	0.16	0.38	0.035		0.14	0.18				2.27		150	
NCSHC 11406	6SiMnW	0.65	1.23	0.65	0.017	0.016	0.026					1.42		150	
NCSHC 11406a	6SiMnW	0.64	0.97	0.75	0.011	0.009		0.23	0.032			1.44		150	
NCSHC 11407	3W ₂ Cr ₂ V	0.34	0.30	0.11	0.013	0.009	2.44	0.087	0.034	0.65		3.61		150	
NCSHC 11408	9V	1.07	0.18	0.44	0.044	0.006		0.24				0.41		150	
NCSHC 11409	SiMnV	1.42	0.64	0.74	0.052	0.033		0.27				0.31		150	
NCSHC 11410	9Mn ₂ V	0.84	0.23	2.02	0.051	0.006	0.10	0.034				0.16		150	
NCSHC 11411	5CrW ₂ Si	0.50	0.60	0.40	0.030	0.031	1.15	0.14	0.048			2.30		150	
NCSHC 11412	T ₇	0.66	0.27	0.66	0.030	0.019	0.31	0.24	0.023					150	
NCSHC 11412a	T ₇	0.70	0.26	0.79	0.035	0.028	0.005	0.019	0.024					150	
NCSHC 11412b	T ₇	0.72	0.34	0.18	0.013	0.003		0.013	0.024					150	
NCSHC 11413	T ₈	0.79	0.25	0.28	0.029	0.007								150	
NCSHC 11413a	T ₈	0.82	0.30	0.78	0.021	0.015								150	
NCSHC 11414	T ₁₀	1.05	0.33	0.41	0.011	0.009	0.63	0.021	0.022	0.23				150	
NCSHC 11415	T ₁₁	1.15	0.24	0.34	0.019	0.005	0.050	0.039	0.023					150	
NCSHC 11416	T ₁₂	1.20	0.21	0.19	0.012	0.009	0.044	0.030	0.095					150	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
NCSHC 13401	T ₈ A	0.81	0.18	0.23	0.013	0.0065								150	
NCSHC 13402	T ₁₃ A	1.26	0.25	0.28	0.018	0.0105								150	
NCSHC 13403	T ₁₁ A	1.155	0.46	1.14	0.043	0.038								150	
NCSHC 13404	T ₁₂ A	1.18	0.32	0.70	0.010	0.0065								150	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
NCSHC 14401	T ₈	0.785	0.563	0.614	0.0115	0.029	0.064							150	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
NCSHC 17401	W ₁₈ Cr ₄ V	0.762	0.241	0.280	0.0241	0.026	4.03	0.040	0.038		1.30	18.16	0.245	100	
NCSHC 17402	W ₆ Mo ₅ Cr ₄ V ₂	0.855	0.232	0.275	0.0261	0.011	4.08	0.046	0.041		2.02	5.99	4.84	100	
NCSHC 17403	3Cr ₂ W ₈ V	0.359	0.170	0.298	0.0211	0.021	2.48	0.0208	0.030		0.27	8.39	0.055	100	
NCSHC 17405	High Speed Steel	0.941	0.521	0.441	0.023	0.028	1.99	0.095			0.18	19.22	0.122	100	
NCSHC 17406	High Speed Steel	0.78	0.230	0.427	0.024	0.020	3.64	0.134			0.44	18.72	0.176	100	
NCSHC 17407	High Speed Steel	0.710	0.183	0.268	0.029	0.0064	4.29	0.187			1.05	17.64	0.266	100	
NCSHC 17408	High Speed Steel	0.577	0.383	0.233	0.015	0.0043	2.70	0.231			0.81	16.24	0.330	100	
NCSHC 17409	High Speed Steel	0.493	0.493	0.343	0.304	0.0048	4.78	0.278			1.49	14.96	0.411	100	
NCSHC 17414	High Speed Steel	0.332	1.16	2.719	0.0228	0.0177	4.43	0.862		1.955	1.083	9.22	6.16	2.989	100
NCSHC 17414	High Speed Steel		Nb												
		0.497													

Section 1 Iron, Steel & Alloy(Chip)

5)Tool Steel

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	W	Mo	Sn	Co	
NCSHC 21401	High Speed Steel	0.828	0.226	0.283	0.028	0.0065	4.08	0.083	0.140	1.33	9.23	3.13	0.017	0.018	150
		Ti	Als												
		0.0044	0.013												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	W	Mo	Re		
NCSHC 23402	Cr ₄ Mo ₄ VR _E	0.85	0.39	0.35	0.034	0.014	4.07			0.99		4.38	0.035	150	
NCSHC 23403	W ₉ Mo ₃ Cr ₄ V	0.81	0.322	0.349	0.028	0.012	3.91	0.076	0.137	1.49	8.84	2.92		150	
NCSHC 23404	W ₉ Mo ₃ Cr ₄ V	0.823	0.303	0.303	0.027	0.017	3.99	0.100	0.138	1.44	9.17	2.92		100	
NCSHC 23405	High-speed tool Steel	0.888	0.267	0.308	0.026	0.018	3.99	0.103	0.147	1.94	6.13	4.85		100	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo	
NCSHC 24403	High Speed Steel	0.731	0.207	0.286	0.22	0.22	2.96	0.156	0.249		0.44		15.99	0.42	100
NCSHC 24404	High Speed Steel	0.909	0.309	0.244	0.025	0.026	3.25	0.203	0.223		0.84		14.41	0.88	100
NCSHC 24405	High Speed Steel	0.821	0.443	0.307	0.025	0.024	3.54	0.383	0.211	0.059	1.23		11.71	1.57	100
NCSHC 24407	High Speed Steel	1.09	0.352	0.405	0.034	0.034	4.26	0.201	0.248		2.77		6.85	3.75	100
NCSHC 24408	High Speed Steel	0.996	0.648	0.293	0.026	0.026	5.19	0.224	0.203	0.128	4.51		1.80	6.52	100
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	W	Mo	Co	Ti	
NCSHC 28401	T ₁₀	0.985	0.286	0.211	0.027	0.012	0.070	0.037	0.086						100
NCSHC 28402	High Speed Steel	0.847	0.190	0.296	0.023	0.012	3.99	0.096	0.122	1.93	6.14	5.06	0.023	0.0013	100
		Als													
NCSHC 28402	High Speed Steel	0.0020													
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo	
NCSHC 41401	T ₈	0.822	0.223	0.267	0.008	0.0075	0.101	0.035	0.084		0.001				150
NCSHC 41403	T ₉	0.890	0.209	0.252	0.021	0.0115									150
NCSHC 41404	W ₁₈ Cr ₄ V	0.740	0.165	0.178	0.025	0.0015	4.18				1.30		17.97		150
NCSHC 41406	W ₆ Mo ₅ Cr ₂ V ₂	0.874	0.367	0.301	0.020	0.017	4.12	0.317	0.080		1.76		6.15	4.73	150

Section 1 Iron, Steel & Alloy(Chip)

6) Superalloy, Precious Alloy & Heat Resisting Alloy

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCSHC 11501	GH49	0.032					9.60			3.56	0.30	1.83	5.82	5.45	100	
NCSHC 11502	GH43	0.035	0.52	0.46			16.98			1.40		2.54	2.78	4.74	100	
NCSHC 11503	GH37	0.10	0.59	0.45	0.009	0.013	16.02			2.27	0.38	2.29	6.93	4.04	100	
NCSHC 11505	GH143	0.19	0.08	0.92	0.0015	0.004	15.13			4.83		1.32		5.57	100	
NCSHC 11506	GH130		0.04		0.004	0.0013	14.97	37.53		1.95		2.93	5.07		100	
NCSHC 11507	GH140	0.10	0.35	0.55	0.016	0.011	23.15	38.16		0.42		0.94	1.72	2.27	100	
NCSHC 11508	GH131	0.08	0.72	0.73	0.012	0.003	20.94	27.75					5.66	2.96	100	
NCSHC 11509	GH135	0.062	0.48	0.43	0.009	0.017	14.94	34.25		2.58		2.42	1.96	1.94	100	
NCSHC 11510	GH35-1	0.13	0.80	0.75	0.016	0.016	23.00	36.43		0.50		1.19	3.38		100	
NCSHC 11511	GH35-2	0.10	0.62	0.61	0.013	0.029	21.00	35.95		0.44			2.66		100	
NCSHC 11512	GH36	0.37	0.43	8.56	0.012	0.029	12.81	8.52			1.41	0.06		1.28	100	
NCSHC 11513	GH39	0.031	0.056	0.30		0.004	18.94		0.009	0.25		0.60		1.90	100	
NCSHC 11514	GH128	0.025	0.55	0.28		0.004	20.10			0.34			8.15	8.09	100	
NCSHC 11515	K3	0.15	0.06			0.003	10.92			5.53		2.72	4.91	3.98	100	
NCSHC 11516	K13	0.059	0.11	0.044	0.006	0.004	14.91	35.37		1.82		3.58			100	
NCSHC 11517	4J29		0.077	0.35			0.21	28.91							100	
NCSHC 11518	Cr ₁₄ Ni ₁₄ W ₂ MoTi	0.09	0.66	0.80	0.027		12.34	14.03	0.23			0.48	2.20	0.58	100	
NCSHC 11519	Heat Resisting Steel	0.400	1.85	0.95	0.015	0.0041	25.58	34.86			0.041		0.93	0.348	100	
NCSHC 11531	GH153	0.04	0.18	0.34	0.005	0.004	19.96			0.48		0.46	8.03	8.00	100	
		Co	Nb	Zr	B	N	Fe	Ce								
NCSHC 11501	GH49	14.87			0.028		(0.48)	0.0023								
NCSHC 11502	GH43		1.01		0.030		(4.84)									
NCSHC 11503	GH37				0.025		(4.09)									
NCSHC 11505	GH143	19.73			0.017		(1.07)									
NCSHC 11506	GH130				0.018											
NCSHC 11508	GH131		1.03		0.0015	0.11										
NCSHC 11509	GH135				0.017											
NCSHC 11510	GH35-1							0.014								
NCSHC 11511	GH35-2		1.43					0.013								
NCSHC 11512	GH36		0.44													
NCSHC 11513	GH39		0.82				(0.42)									
NCSHC 11514	GH128			0.032	0.007		(1.94)	0.007								
NCSHC 11515	K3	5.41		0.096	0.034		(0.22)	0.015								
NCSHC 11516	K13				0.100											
NCSHC 11517	4J29	17.17														
NCSHC 11531	GH153			0.12	0.002		1.12	0.005								
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Fe	Mo	B	Al ₃	Nb	Zr	Ti		Pb
NCSHC 11530	Nickel Base Super Alloy	0.120	0.249	0.276	0.0077	0.0046	12.81	0.454	4.53	0.011	6.14	2.15	0.094	0.850	0.00023 (0.00006)	50
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)	
		Ag	As	Bi	Ca	Cd	In	Mg	Pb	Sb	So	Sn	Te	Ti		
NCSHC 11520	Superalloy Trace Elements	3.5	17	4.2	42	7.0	11	82	12	204	43	103	3.0	8.5	150	
NCSHC 11521	Superalloy Trace Elements	4.6	11	0.4	21	4.6	2.6	16	4.1	95	16	53	11	22	150	
NCSHC 11522	Superalloy Trace Elements	5.3	15	0.4	11	1.8	30	15	11	59	11	72	2.1	51	150	
NCSHC 11523	Superalloy Trace Elements	0.3	72	0.5	32	1.9	0.4	53	2.2	7.4	43	1040	0.5	83	150	
NCSHC 11524	Superalloy Trace Elements	0.7	72	3.4	5.3	1.6	9.2	111	91	6.2	53	92	83	8.1	150	
		Zn	Ga													
NCSHC 11520	Superalloy Trace Elements	24	29													
NCSHC 11521	Superalloy Trace Elements	32	32													
NCSHC 11522	Superalloy Trace Elements	105	108													
NCSHC 11523	Superalloy Trace Elements	20	28													
NCSHC 11524	Superalloy Trace Elements	6.0	63													

Section 1 Iron, Steel & Alloy(Chip)

6) Superalloy, Precious Alloy & Heat Resisting Alloy

Number	Name	Chemical Composition(µg/g)														Unit Size (in g)
		Ag	As	B	Bi	Cd	Ce	Ci	Hf	Ga	Ge	In	P	Pb		
NCS HC 11525	Trace elements in superalloy	0.78	6.7	90	0.14	0.31	0.38	571	3.5	31	13	0.88	41	3.4	100	
NCS HC 11526	Trace elements in superalloy	1.0	14	47	0.19	<0.02	1.8	363	7.4	34	24	7.2	36	3.7	100	
NCS HC 11527	Trace elements in superalloy	2.5	96	25	1.2	<0.02	0.45	172	3.8	38	38	2.6	55	4.7	100	
NCS HC 11528	Trace elements in superalloy	4.4	44	24	2.0	<0.02	0.028	94	33	52	75	31	131	8.2	100	
NCS HC 11529	Trace elements in superalloy	5.4	25	13	1.8	<0.02	0.19	53	12	49	27	10	80	11	100	
		Sb	Sc	Se	Sn	Te	Ti	Zn								
NCS HC 11525	Trace elements in superalloy	1.4	1.3	9.8	3.2	28	0.13	12								
NCS HC 11526	Trace elements in superalloy	3.3	2.7	12	8.3	31	0.16	13								
NCS HC 11527	Trace elements in superalloy	16	1.2	4.1	18	7.5	4.3	14								
NCS HC 11528	Trace elements in superalloy	49	1.2	2.5	45	2.3	3.9	15								
NCS HC 11529	Trace elements in superalloy	33	0.6	2.2	43	1.3	1.1	13								
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	Ti	W	Mo	Co		
NCS HC 20503	4J29	0.0015	0.106	0.307	0.0019	0.0056	0.148	28.80	0.072		0.0040		4.13	17.77	100	
NCS HC 20504	1J79	0.008	0.36	1.08	0.0009	0.0030									150	
NCS HC 20505	2J64	0.73	0.25	0.26	0.009	0.004		79.56	0.072				3.98		150	
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCS HC 23505	GH130	0.038	0.19	0.28	0.08	0.05	14.28	37.83		1.88		2.89	5.87		100	
NCS HC 23507	G263	0.06	0.26	0.47		0.0028	20.08		0.078	0.33		2.15			100	
NCS HC 23511	F176	0.057	0.61	0.91	0.023	0.059	16.05	9.20	0.12				0.04	0.75	100	
		Co	Nb	Zr	B	Sb	N	Ce	Se	Fe	In	Ga				
NCS HC 23505	GH130				0.016				0.106							
NCS HC 23507	G263	20.58			0.0038					0.255						
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Co	W	Mo		
NCS HC 24513	2J9	0.070	0.61	0.74	0.0038	0.0079		0.93			8.82	52.08			100	
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	V	Ti	W	Mo		
NCS HC 57511	GH4169	0.019	0.084	0.0016*	0.0012	0.0056	18.59	52.36	0.0021	0.42	0.16	0.93	0.23	3.08	100	
		Co	B	Nb	Zr											
NCS HC 57511	GH4169	1.03	0.011	5.09	0.018											
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	Fe	Ti	Co	Mo		
NCS HC 41501	Nickel-based superalloy	0.043	0.071	0.124	0.0023	0.0006	20.69	63.72		0.016	3.50	0.011		8.37	100	
NCS HC 41502	Nickel-based superalloy	0.027	0.080	0.057	0.0033	0.0005	18.56	52.27	0.023	0.635	18.54	1.03	0.111	3.28	100	
NCS HC 41503	Corrosion-resisting alloy	0.071	0.36	0.807	0.015	0.0006	20.72	32.27	0.038	0.299		0.49	0.050	0.297	100	
		Nb	Ta*	B	Co*	Ta**										
NCS HC 41501	Nickel-based superalloy	3.19			0.011	0.001										
NCS HC 41502	Nickel-based superalloy	5.15	0.008	0.0025												

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Zn	Sb	
NCS HS11011b	Pure iron	0.0023	0.0023	0.013	0.0014	0.0014	0.0066	0.0003	0.0027	0.0045	0.00015	0.00029	ø38×40
NCS HS11011b	Pure iron	Sn	As	B	Ca	Co	N	V	Al	Bi	Mg	Ti	
		0.00015	0.0026	0.00023	0.0003	0.0012	0.0045	<0.0001	<0.0001	<0.00001	(0.00006)	<0.0001	
NCS HS11011b	Pure iron	Pb	Nb	W	Ta	Ce#	Hf#	La#	Se#	Cd#	Te#	Zr#	
		(0.00002)	(0.00004)	(0.00004)	<0.00001	<0.00001	<0.00002	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Ti	Zr	B	
NCS HS 11706-3	Silicon Steel	0.106	1.03	0.546	0.045	0.029	0.187	0.571	0.146	0.026	0.017	0.012	ø38×30
NCS HS 11706-5	Silicon Steel	0.040	4.16	1.10	0.020	0.031	0.042	0.101	0.063	0.010	0.0035	0.0054	ø38×30
NCS HS 11706-3	Silicon Steel	Sn	Sb	N	Als	Al _i							
		0.019	0.0012	(0.0058)	0.779	0.783							
NCS HS 11706-5	Silicon Steel	0.0055	0.022	0.0026	0.065	0.068							
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	
NCS HS 11708a-1	Alloy structure steel	0.200	0.222	0.680	0.038	0.0084	2.97	3.53	0.355	0.210	0.189	0.161	ø38×30
NCS HS 11708a-2	Alloy structure steel	0.144	0.132	3.60	0.053	0.074	0.95	4.33	0.016	0.019	0.478	0.226	ø38×30
NCS HS 11708a-3	Alloy structure steel	0.288	0.290	0.89	0.035	0.027	2.27	1.29	0.136	0.556	0.346	0.296	ø38×30
NCS HS 11708a-4	Alloy structure steel	0.046	0.051	2.42	0.048	0.017	4.40	2.54	0.441	1.40	0.449	0.035	ø38×30
NCS HS 11708a-5	Alloy structure steel	0.251	0.605	1.04	0.025	0.031	1.36	1.77	0.046	0.864	0.118	0.073	ø38×30
NCS HS 11708a-6	Alloy structure steel	0.315	0.391	1.88	0.029	0.049	3.27	1.02	0.245	0.118	0.273	0.136	ø38×30
NCS HS 11708a-7	Alloy structure steel	0.505	1.10	0.325	0.0062	0.065	0.703	0.773	0.518	0.305	0.013	0.028	ø38×30
NCS HS 11708a-8	Alloy structure steel	0.425	0.830	0.553	0.017	0.0009	0.177	0.621	0.636	0.423	0.055	0.061	ø38×30
NCS HS 11708a-1	Alloy structure steel	W	Alt	As	Sn	Pb	B	Ce	N				
		0.429	0.016	0.048	0.048	(0.0008)	0.0064	(0.0002)	0.014				
NCS HS 11708a-2	Alloy structure steel	0.092	0.012	0.054	0.057	(0.0003)	0.0006		0.007				
NCS HS 11708a-3	Alloy structure steel	0.804	0.100	0.021	0.017	0.0034	0.0029		0.0085				
NCS HS 11708a-4	Alloy structure steel	1.98	0.0067	0.032	0.036	0.0015	0.0016	(0.0001)	0.020				
NCS HS 11708a-5	Alloy structure steel	1.23	0.0098	0.093	0.011	0.0024	0.0055	(0.00009)	0.010				
NCS HS 11708a-6	Alloy structure steel	0.201	0.147	0.056	0.027	(0.0002)	0.0096		0.015				
NCS HS 11708a-7	Alloy structure steel	0.602	0.311	0.0067	0.0042	0.0019	0.025	(0.0001)	0.0027				
NCS HS 11708a-8	Alloy structure steel	0.362	0.602	0.0086	0.0087	0.0013	0.019	0.045	0.0028				
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Ti	W	Mo	
NCS HS 11709a-1	Stainless Steel	0.0035	1.13	0.343	0.065	0.049	28.00	4.76	0.202	0.053	0.032	0.040	ø38×30
NCS HS 11709a-2	Stainless Steel	0.139	0.555	1.06	0.022	0.013	14.37	14.58	0.133	0.475	0.577	0.305	ø38×30
NCS HS 11709a-3	Stainless Steel	0.183	0.352	0.981	0.015	0.0098	10.66	19.13	0.057	0.577	0.735	0.606	ø38×30
NCS HS 11709a-4	Stainless Steel	0.060	0.971	0.704	0.035	0.032	19.73	11.24	0.258	0.253	0.198	0.169	ø38×30
NCS HS 11709a-5	Stainless Steel	0.224	0.154	1.92	0.0057	0.0045	7.65	22.77	0.014	0.774	0.432	0.809	ø38×30
NCS HS 11709a-6	Stainless Steel	0.027	1.06	0.595	0.057	0.042	24.40	7.34	0.326	0.170	0.078	0.053	ø38×30
NCS HS 11709a-7	Stainless Steel	0.084	0.765	1.31	0.039	0.025	17.57	8.72	0.405	0.336	0.873	0.973	ø38×30
NCS HS 11709a-1	Stainless Steel	Co	Sn	As	Pb	Al _t							
		0.012	0.051	0.0027	0.0004	0.107							
NCS HS11709a-2	Stainless Steel	0.166	0.015	0.021	0.00017	0.029							
NCS HS 11709a-3	Stainless Steel	0.222	0.0089	0.024	0.00013	0.019							
NCS HS 11709a-4	Stainless Steel	0.078	0.033	0.011	0.00030	0.096							
NCS HS 11709a-5	Stainless Steel	0.131	0.0027	0.030	0.0003	0.015							
NCS HS 11709a-6	Stainless Steel	0.031	0.042	0.0066	0.0002	0.174							
NCS HS 11709a-7	Stainless Steel	0.265	0.018	0.016	0.00017	0.041							

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Mg	Sn	N	
NCSHS 11712a-1	Nitrogen Cast Iron	1.75	3.40	0.080	0.580	0.119	2.48	0.030	0.025	0.031	0.021	0.0006	0.0031	0.015	ø28×30
NCSHS 11712a-2	Nitrogen Cast Iron	2.22	2.44	0.301	0.043	0.058	2.13	0.341	0.458	0.087	0.055	0.0085	0.044	0.024	ø28×30
NCSHS 11712a-3	Nitrogen Cast Iron	2.55	1.50	0.878	0.071	0.045	0.417	0.519	0.641	0.354	0.085	0.024	0.021	0.024	ø28×30
NCSHS 11712a-4	Nitrogen Cast Iron	3.16	1.96	0.462	0.396	0.017	1.40	0.778	0.921	0.428	0.166	0.025	0.024	0.0073	ø28×30
NCSHS 11712a-5	Nitrogen Cast Iron	3.52	1.17	0.311	0.420	0.019	0.766	1.03	0.389	0.629	0.324	0.021	0.013	0.0047	ø28×30
NCSHS 11712a-6	Nitrogen Cast Iron	4.02	0.163	1.41	0.021	0.026	0.112	1.89	1.83	0.726	0.509	0.104	0.057	0.013	ø28×30
NCSHS 11712a-7	Nitrogen Cast Iron	3.94	0.918	1.38	0.085	0.0048	1.05	1.37	1.10	0.168	0.309	0.056	0.134	0.0063	ø28×30
		Ti	Al	La	Ce										
NCSHS 11712a-1	Nitrogen Cast Iron	0.038	0.248	<0.0001	<0.0001										
NCSHS 11712a-2	Nitrogen Cast Iron	0.065	0.060	0.010	0.0010										
NCSHS 11712a-3	Nitrogen Cast Iron	0.027	0.034	0.0061	0.027										
NCSHS 11712a-4	Nitrogen Cast Iron	0.065	0.0073	<0.0001	<0.0001										
NCSHS 11712a-5	Nitrogen Cast Iron	0.161		<0.0001	<0.0001										
NCSHS 11712a-6	Nitrogen Cast Iron	0.238	0.019	<0.0001	<0.0001										
NCSHS 11712a-7	Nitrogen Cast Iron	0.114	0.214	<0.0001	<0.0001										
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Nb	W	Co	
NCSHS11714a-1	Medium-Low Alloy Steel	1.17	0.394	1.91	0.0052	0.034	4.48	0.063	0.097	0.045	0.033	0.302	0.42	0.031	D38×30
NCSHS11714a-2	Medium-Low Alloy Steel	0.075	0.97	0.131	0.027	0.012	1.99	1.23	1.19	0.253	0.24	0.191	1.94	0.172	D38×30
NCSHS11714a-3	Medium-Low Alloy Steel	0.921	1.17	1.14	0.011	0.065	3.39	0.301	0.628	0.478	0.061	0.272	0.754	0.508	D38×30
NCSHS11714a-4	Medium-Low Alloy Steel	0.44	1.99	0.793	0.033	0.027	1.06	0.91	2.05	0.338	0.498	0.142	1.58	0.25	D38×30
NCSHS11714a-5	Medium-Low Alloy Steel	0.73	0.113	1.58	0.055	0.0051	0.215	0.606	4.57	0.607	0.114	0.016	0.027	0.073	D38×30
NCSHS11714a-6	Medium-Low Alloy Steel	0.249	0.85	0.402	0.04	0.017	0.6	1.49	2.95	0.123	0.388	0.045	1.17	0.361	D38×30
		Ti	Al	La	Ce										
NCSHS11714a-1	Medium-Low Alloy Steel	0.478	0.489	0.223	0.226	0.02	0.026	0.0073	0.0012	0.0006	0.0004	0.0054	0.0007	(0.0004)	
NCSHS11714a-2	Medium-Low Alloy Steel	0.188	0.19	0.77	0.78	0.0094	0.011	0.0012	0.0004	0.00007#	(0.0002)	0.024	<0.0001#	(0.0005)	
NCSHS11714a-3	Medium-Low Alloy Steel	0.319	0.322	0.071	0.072	0.013	0.017	0.0017	0.0069	(0.0001)	0.0003	0.0064	0.0004	(0.0005)	
NCSHS11714a-4	Medium-Low Alloy Steel	0.029	0.03	0.025	0.026	0.0051	0.0063	0.0012	(0.0007)	(0.0006)	0.0019	0.0019	<0.0001*	(0.0005)	
NCSHS11714a-5	Medium-Low Alloy Steel	0.078	0.078	1.13	1.14	(0.0002)	(0.0004)	0.0031	0.0018	0.003	0.0082	0.218	(0.0001)	(0.0004)	
NCSHS11714a-6	Medium-Low Alloy Steel	0.107	0.11	0.542	0.552	0.0007	0.0007	0.0012	0.0106	0.0011	0.0082	0.113	0.0006	(0.0005)	
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Co	Als	Alt	
NCSHS11715a-1	Stainless Steel	0.298	1.89	2.56	0.0069	0.0037	27.89	23.11	0.791	0.483	0.558	0.039	(0.004)	(0.006)	ø36×30
NCSHS11715a-2	Stainless Steel	0.084	0.289	0.629	0.033	0.020	23.62	4.68	0.282	1.10	0.087	0.459	1.77	1.80	ø36×30
NCSHS11715a-3	Stainless Steel	0.040	0.652	0.821	0.021	0.021	20.62	8.72	1.41	0.069	0.252	0.229	0.344	0.351	ø36×30
NCSHS11715a-4	Stainless Steel	0.011	0.980	1.19	0.026	0.028	17.94	12.11	4.13	2.13	0.440	0.158	0.085	0.088	ø36×30
NCSHS11715a-5	Stainless Steel	0.0052	0.112	0.221	0.051	0.037	15.39	15.02	0.458	0.281	0.106	0.212	1.21	1.22	ø36×30
NCSHS11715a-6	Stainless Steel	0.213	1.50	1.91	0.019	0.044	11.14	19.01	3.05	2.93	0.319	0.075	0.034	0.037	ø36×30
		Ti	Nb	W	As	Sn	Pb	N							
NCSHS11715a-1	Stainless Steel	0.080	0.077	(0.0007)	0.0007	0.0005	(0.00005)	0.027							
NCSHS11715a-2	Stainless Steel	(0.280)	2.42	0.217	0.0095	0.023	(0.00009)	(0.064)							
NCSHS11715a-3	Stainless Steel	0.562	0.494	0.311	0.018	0.012	(0.0003)	0.019							
NCSHS11715a-4	Stainless Steel	0.170	1.04	0.544	0.0066	0.0029	(0.0004)	0.0091							
NCSHS11715a-5	Stainless Steel	(0.623)	0.173	0.709	0.016	0.014	0.0008	(0.020)							
NCSHS11715a-6	Stainless Steel	0.742	1.41	0.160	0.0058	0.018	(0.0002)	0.0058							

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Mo	Nb	Alt	
NCSHS 11716a-1	High Chromium Cast Iron	1.8	2.72	0.687	0.106	0.046	32.6	0.272	0.314	0.217	0.081	0.201	0.12	0.075	ø33x21
NCSHS 11716a-2	High Chromium Cast Iron	1.99	1.12	1.19	0.051	0.015	10.97	0.319	1.34	0.15	0.04	0.716	0.272	0.051	ø33x21
NCSHS 11716a-3	High Chromium Cast Iron	3.35	1.42	1.25	0.056	0.046	25.83	0.662	0.877	0.447	0.188	0.461	0.068	0.141	ø33x21
NCSHS 11716a-4	High Chromium Cast Iron	2.63	0.572	2.09	0.021	0.05	14.64	1.49	1.64	0.086	0.086	3.51	0.261	0.139	ø33x21
NCSHS 11716a-5	High Chromium Cast Iron	2.27	0.713	1.4	0.186	0.046	18.28	2.16	0.884	0.607	0.028	2.42	0.437	0.044	ø33x21
NCSHS 11716a-6	High Chromium Cast Iron	3.02	1.72	1.76	0.249	0.093	23.76	0.811	0.617	0.479	0.114	1.29	0.128	0.18	ø33x21
		Co	W												
NCSHS 11716a-1	High Chromium Cast Iron	0.037	0.29												
NCSHS 11716a-2	High Chromium Cast Iron	0.018	0.352												
NCSHS 11716a-3	High Chromium Cast Iron	0.357	0.519												
NCSHS 11716a-4	High Chromium Cast Iron	0.124	0.025												
NCSHS 11716a-5	High Chromium Cast Iron	0.031	0.071												
NCSHS 11716a-6	High Chromium Cast Iron	0.206	0.18												
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	Co	Pb	
NCS HS 11718a-1	Alloy Cast Iron	1.84	3.52	1.52	0.036	0.060	0.815	0.740	0.085	0.071	0.107	0.082	0.0059	0.0008	ø32X20
NCS HS 11718a-2	Alloy Cast Iron	2.53	2.59	1.04	0.066	0.029	1.49	0.118	1.79	0.153	0.158	0.042	0.0062	0.0008	ø32X20
NCS HS 11718a-3	Alloy Cast Iron	3.70	2.04	0.520	0.270	0.039	0.211	0.288	0.767	0.600	0.059	0.140	0.0027	0.0010	ø32X20
NCS HS 11718a-4	Alloy Cast Iron	3.32	1.47	0.762	0.151	0.017	0.523	0.489	1.03	0.791	0.322	0.160	0.0037	0.0004	ø32X20
NCS HS 11718a-5	Alloy Cast Iron	2.88	1.01	0.331	0.703	0.172	1.98	1.53	0.407	0.301	0.066	0.033	0.011	0.0002	ø32X20
NCS HS 11718a-6	Alloy Cast Iron	4.03	0.570	0.103	0.042	0.019	0.058	1.20	1.26	1.18	0.579	0.057	0.020	0.0004	ø32X20
		As	Alt	W	Nb	Sb	B	Sn							
NCS HS 11718a-1	Alloy Cast Iron	0.012	0.018	0.76	0.114	0.103	0.0078	0.098							
NCS HS 11718a-2	Alloy Cast Iron	0.030	0.098	0.076	0.068	0.0041	0.012	0.034							
NCS HS 11718a-3	Alloy Cast Iron	0.0080	0.113	0.025	0.250	0.084	0.043	0.143							
NCS HS 11718a-4	Alloy Cast Iron	0.013	0.154	0.283	0.5114	0.084	0.071	0.0068							
NCS HS 11718a-5	Alloy Cast Iron	0.016	0.058	0.494	0.045	0.025	0.026	0.069							
NCS HS 11718a-6	Alloy Cast Iron	0.0053	0.172	0.103	0.092	0.198	0.072	0.051							
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Ti	Al	V	Sb	
NCS HS 11722-1	Ductile Cast Iron	2.12	3.88	0.26	0.38	0.004	0.040	0.026	0.77	0.21	0.37	0.17	0.031	0.003	ø36X15
NCS HS 11722-2	Ductile Cast Iron	2.46	1.44	1.09	0.074	0.035	0.083	0.025	0.56	1.51	0.143	0.070	0.067	0.052	ø36X15
NCS HS 11722-3	Ductile Cast Iron	3.62	1.85	0.60	0.049	0.012	0.069	0.017	0.38	0.76	0.13	0.094	0.10	0.094	ø36X15
NCS HS 11722-4	Ductile Cast Iron	3.24	2.84	0.46	0.049	0.016	0.093	0.078	0.16	0.24	0.082	0.083	0.11	0.038	ø36X15
NCS HS 11722-5	Ductile Cast Iron	2.70	2.03	0.77	0.16	0.087	0.045	0.023	0.12	1.23	0.20	0.13	0.30	0.12	ø36X15
NCS HS 11722-6	Ductile Cast Iron	4.04	0.88	0.89	0.29	0.14	0.13	0.035	0.079	0.61	0.053	0.044	0.50	0.20	ø36X15
		Sn	Mg	La	Ce										
NCS HS 11722-1	Ductile Cast Iron	0.30	0.07	0.06	0.20										
NCS HS 11722-2	Ductile Cast Iron	0.24	0.041	0.018	0.062										
NCS HS 11722-3	Ductile Cast Iron	0.18	0.060	0.045	0.11										
NCS HS 11722-4	Ductile Cast Iron	0.090	0.033	0.002	0.004										
NCS HS 11722-5	Ductile Cast Iron	0.065	0.004	(0.0005)	(0.003)										
NCS HS 11722-6	Ductile Cast Iron	0.016	0.007	(0.0005)	(0.003)										

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Als	Alt	Tis	
NCS HS 11719-1	Carbon steel	0.963	0.241	0.586	0.022	0.010	0.131	0.206	0.111	0.035	0.017	0.019	0.015	ø38×30
NCS HS 11719-2	Carbon steel	0.042	0.154	0.048	0.105	0.0053	0.247	0.432	0.411	0.207	0.292	0.296	0.154	ø38×30
NCS HS 11719-3	Carbon steel	0.435	0.163	1.14	0.045	0.020	0.086	0.114	0.160	0.099	0.016	0.019	0.023	ø38×30
NCS HS 11719-4	Carbon steel	0.140	0.526	1.30	0.084	0.020	0.198	0.344	0.276	0.153	0.155	0.160	0.128	ø38×30
NCS HS 11719-5	Carbon steel	1.19	0.751	2.20	0.011	0.013	0.439	0.164	0.046	0.0082	0.034	0.036	0.028	ø38×30
NCS HS 11719-6	Carbon steel	0.0060	0.014	0.163	0.0053	0.035	0.021	0.013	0.0032	0.363	0.0016	0.0021	0.0008	ø38×30
NCS HS 11719-7	Carbon steel	0.0048	0.055	0.145	0.0076	0.069	0.061	0.048	0.018	0.362	0.0011	0.0014	0.0012	ø38×30
		Tit												
NCS HS 11719-1	Carbon steel	0.016												
NCS HS 11719-2	Carbon steel	0.161												
NCS HS 11719-3	Carbon steel	0.024												
NCS HS 11719-4	Carbon steel	0.132												
NCS HS 11719-5	Carbon steel	0.029												
NCS HS 11719-6	Carbon steel	0.0010												
NCS HS 11719-7	Carbon steel	0.0014												
Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Als	Alt	Ti	
NCS HS11717a-1	Micro Alloy Steel	0.0023	0.0054	0.018	0.012	0.0027	0.023	0.0053	0.011	0.0036	0.0069	0.0078	0.0002	D38×30
NCS HS11717a-3	Micro Alloy Steel	0.032	1.55	0.303	0.018	0.067	0.236	0.034	0.563	0.403	0.295	0.298	0.049	D38×30
NCS HS11717a-4	Micro Alloy Steel	0.096	1.09	0.669	0.012	(0.05)	0.102	0.144	0.4	0.316	0.214	0.216	0.202	D38×30
NCS HS11717a-5	Micro Alloy Steel	0.243	0.769	1.04	0.03	0.042	0.106	0.105	0.393	0.248	0.101	0.104	0.178	D38×30
NCS HS11717a-6	Micro Alloy Steel	0.387	0.436	1.47	0.038	0.03	0.409	0.071	0.206	0.167	0.05	0.051	0.124	D38×30
NCS HS11717a-7	Micro Alloy Steel	0.498	0.176	2.1	0.05	0.022	0.612	0.196	0.107	0.075	0.022	0.024	0.088	D38×30
		V Co Nb Pb Sn As Sb Bi Ca Bs Bt N												
NCS HS11717a-1	Micro Alloy Steel	-0.0001	0.0015	(<0.0005)	(<0.0001)	0.0002	0.0034	0.00041	(<0.00001)	0.0001#	0.0002	0.0004	0.0016	
NCS HS11717a-2	Micro Alloy Steel	0.011	0.058	0.031	(<0.0001)	0.0073	0.011	0.00031	(<0.00001)	0.0001#	0.0011	0.0012	0.0017	
NCS HS11717a-3	Micro Alloy Steel	0.052	0.099	0.079	(<0.0001)	0.016	0.019	0.00041	(<0.00001)	0.0001#	0.0018	0.002	0.0032	
NCS HS11717a-4	Micro Alloy Steel	0.098	0.146	0.223	(0.0001)	0.049	0.073	0.00044	(0.00001)	0.0001#	0.0085	0.0096	0.0031	
NCS HS11717a-5	Micro Alloy Steel	0.257	0.296	0.318	(<0.0001)	0.099	0.071	0.00052	(0.00001)	0.0001#	0.0071	0.0074	0.0048	
NCS HS11717a-6	Micro Alloy Steel	0.201	0.248	0.106	(<0.0001)	0.151	0.045	0.00048	(0.00001)	0.0001#	0.0047	0.0049	0.0049	
NCS HS11717a-7	Micro Alloy Steel	0.147	0.198	0.153	(<0.0001)	0.197	0.034	0.0005	(0.00001)	0.0001#	0.0031	0.0033	0.0063	
Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Als	Alt	Ti	
NCS HS11717b-1	Micro Alloy Steel	0.452	0.161	0.414	0.035	0.017	0.212	0.157	0.432	0.155	0.074	0.075	0.11	D38×30
NCS HS11717b-2	Micro Alloy Steel	0.011	1.6	0.646	0.043	0.0049	0.127	0.208	0.236	0.116	0.3	0.302	0.071	D38×30
NCS HS11717b-3	Micro Alloy Steel	0.028	0.822	1.96	0.049	0.048	0.64	0.306	0.125	0.026	0.279	0.283	0.028	D38×30
NCS HS11717b-4	Micro Alloy Steel	0.0025	0.168	0.176	0.0084	0.0061	0.098	0.071	0.048	0.279	0.012	0.013	0.206	D38×30
NCS HS11717b-5	Micro Alloy Steel	0.078	0.567	1.64	0.015	0.011	0.436	0.257	0.332	0.048	0.029	0.03	0.191	D38×30
NCS HS11717b-6	Micro Alloy Steel	0.236	0.122	1.05	0.021	0.022	0.374	0.104	0.104	0.236	0.061	0.061	0.159	D38×30
NCS HS11717b-7	Micro Alloy Steel	0.369	0.065	0.117	0.0075	0.043	0.077	0.029	0.21	0.367	0.238	0.242	0.299	D38×30
		V Co Nb Pb Sn As Sb Bi Ca Bs Bt N												
NCS HS11717a-1	Micro Alloy Steel	0.01	0.145	0.125	0.0012	0.039	0.016	0.028	0.0006	0.0001#	0.015	0.016	0.0039	
NCS HS11717a-2	Micro Alloy Steel	0.062	0.21	0.056	0.0005	0.027	0.021	0.016	0.0015	0.0008	0.0019	0.0024	0.004	
NCS HS11717a-3	Micro Alloy Steel	0.149	0.021	0.24	0.0038	0.069	0.0022	0.01			0.0031	0.0033	0.023	
NCS HS11717a-4	Micro Alloy Steel	0.215	0.236	0.038	0.0009	0.0016	0.039	0.0087	0.0007	0.0001#	0.0018	0.002	0.0037	
NCS HS11717a-5	Micro Alloy Steel	0.105	0.042	0.014	0.0051	0.012	0.01	0.0051	0.0003	0.0002	0.011	0.012	0.006	
NCS HS11717a-6	Micro Alloy Steel	0.042	0.087	0.065		0.015	0.012	0.0022	0.0002	0.0004	0.0056	0.0059	0.0063	
NCS HS11717a-7	Micro Alloy Steel	0.326	0.296	0.303	0.0003	0.103	0.098	0.0004			0.0005	0.0006	0.0035	

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Co	Mo	V	B	Ti	
NCS HS 11720-1	High Manganese Alloy	1.96	0.348	22.96	0.188	0.0063	3.01	0.045	0.025	0.0094	0.0095	0.034	0.0021	0.0041	ø30×24
NCS HS 11720-2	High Manganese Alloy	1.61	0.652	10.66	0.052	0.054	0.467	0.328	0.221	0.010	0.118	0.132	0.0038	0.047	ø30×24
NCS HS 11720-3	High Manganese Alloy	1.16	1.16	16.75	0.077	0.055	0.257	0.152	0.143	0.091	0.589	0.53	0.0013	0.03	ø30×24
NCS HS 11720-4	High Manganese Alloy	1.06	1.47	15.04	0.044	0.059	1.45	1.66	0.089	0.0093	0.881	0.567	0.0023	0.013	ø30×24
NCS HS 11720-5	High Manganese Alloy	0.75	1.01	12.2	0.118	0.037	0.68	0.838	0.449	0.007	0.302	0.273	0.0009	0.018	ø30×24
NCS HS 11720-6	High Manganese Alloy	2.38	1.69	5.36	0.029	0.108	0.084	3.43	0.474	0.107	1.51	0.837	0.017	0.218	ø30×24
N															
NCS HS 11720-1	High Manganese Alloy	0.091													
NCS HS 11720-2	High Manganese Alloy	0.054													
NCS HS 11720-3	High Manganese Alloy	0.033													
NCS HS 11720-4	High Manganese Alloy	0.072													
NCS HS 11720-5	High Manganese Alloy	0.026													
NCS HS 11720-6	High Manganese Alloy	0.016													
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Co	Cu	Ti	V	Alt	
NCS HS 11721-1	Stainless Steel	0.583	1.1	1.47	0.033	0.032	8.55	1.98	1.86	0.289	0.321	0.463	0.329	0.248	ø38×30
NCS HS 11721-2	Stainless Steel	0.371	0.958	1.17	0.03	0.053	10.08	1.43	0.503	0.276	0.279	0.694	0.298	0.196	ø38×30
NCS HS 11721-3	Stainless Steel	0.189	0.76	0.882	0.019	0.021	2.09	0.638	0.734	0.213	0.217	0.369	0.189	0.091	ø38×30
NCS HS 11721-4	Stainless Steel	0.093	0.506	0.531	0.029	0.026	17.43	0.632	0.089	0.176	0.169	0.288	0.241	0.124	ø38×30
NCS HS 11721-5	Stainless Steel	0.052	0.584	0.675	0.022	0.027	21.49	1.01	0.263	0.126	0.12	0.141	0.142	0.026	ø38×30
NCS HS 11721-6	Stainless Steel	0.0021	0.301	0.366	0.011	0.014	26.29	0.37	1.03	0.074	0.072	0.092	0.099	0.0065	ø38×30
NCS HS 11721-7	Stainless Steel	0.0014	0.117	0.198	0.0064	0.0055	28.38	0.04	1.57	0.0085	0.0045	0.0053	0.016	0.0026	ø38×30
As Sn Pb N Nb															
NCS HS 11721-1	Stainless Steel	0.0027	0.0042	(0.0002)	0.0084	0.55									
NCS HS 11721-2	Stainless Steel	0.0051	0.01	0.00037	0.0081	0.763									
NCS HS 11721-3	Stainless Steel	0.017	0.039	0.0009	0.015	0.387									
NCS HS 11721-4	Stainless Steel	0.022	0.034	(0.0002)	0.023	0.291									
NCS HS 11721-5	Stainless Steel	0.013	0.026	0.0007	0.037	0.137									
NCS HS 11721-6	Stainless Steel	0.024	0.017	0.0007	0.043	0.092									
NCS HS 11721-7	Stainless Steel	0.036	0.051	0.0021	0.01	0.009									
Number	Name	Chemical Composition(Percent)											Unit Size (mm)		
		C	Si	Mn	P	S	Cr	Mo	W	V	B ₁	B ₂			
NCS HS 13704-1	12CrMoWB	0.068	0.510	1.096	0.012	0.047	0.281	1.46	0.298	0.394	0.0012	0.0010			ø35×25
NCS HS 13704-2	12CrMoWB	0.100	0.290	0.853	0.016	0.071	0.486	1.19	0.438	0.206	0.0021	0.0016			ø35×25
NCS HS 13704-3	12CrMoWB	0.176	0.272	0.585	0.023	0.028	0.775	0.747	0.796	0.251	0.0038	0.0030			ø35×25
NCS HS 13704-4	12CrMoWB	0.193	0.173	0.396	0.039	0.027	1.19	0.472	1.44	0.061	0.0068	0.0058			ø35×25
NCS HS 13704-5	12CrMoWB	0.256	0.055	0.269	0.048	0.010	1.46	0.301	1.94	0.041	0.0090	0.0081			ø35×25
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Mo	W	V	B ₁	B ₂	Ni	Cu	
NCS HS 13705-1	Alloy Cast Iron	1.81	3.20	1.21	0.0233	0.011	3.08	0.627	0.207	0.507	0.0031	0.0023	4.67	0.680	ø30×30
NCS HS 13705-2	Alloy Cast Iron	2.46	2.59	1.72	0.472	0.0185	0.227	0.191	0.404	0.406	0.0065	0.0060	1.92	0.206	ø30×30
NCS HS 13705-3	Alloy Cast Iron	2.97	1.99	1.48	0.313	0.0224	0.485	0.380	0.303	0.308	0.015	0.012	2.44	0.432	ø30×30
NCS HS 13705-4	Alloy Cast Iron	3.21	1.44	0.142	1.57	0.121	1.47	0.0679	0.333	0.213	0.0310	0.0294	3.02	1.24	ø30×30
NCS HS 13705-5	Alloy Cast Iron	3.33	1.02	0.947	0.142	0.0556	1.12	0.751	0.169	0.156	0.059	0.051	0.971	0.753	ø30×30
NCS HS 13705-6	Alloy Cast Iron	3.65	0.551	0.480	0.0582	0.0732	1.96	1.37	0.111	0.0746	0.0846	0.0815	0.446	1.03	ø30×30
NCS HS 13705-7	Alloy Cast Iron	3.99	0.284	1.98	0.211	0.0375	0.208	2.20	0.447	0.0321	0.124	0.105	0.0713	0.0609	ø30×30
Ti															
NCS HS 13705-1	Alloy Cast Iron	0.268													
NCS HS 13705-2	Alloy Cast Iron	0.354													
NCS HS 13705-3	Alloy Cast Iron	0.462													
NCS HS 13705-4	Alloy Cast Iron	0.156													
NCS HS 13705-5	Alloy Cast Iron	0.104													
NCS HS 13705-6	Alloy Cast Iron	0.116													
NCS HS 13705-7	Alloy Cast Iron	0.0213													

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)										Unit Size (mm)				
		C	Si	Mn	P	S	Cr	Ni	Cu	Al	Mo					
NCS HS 16704-1	38CrMoAl	0.196	0.447	0.543	0.0106	0.0101	2.22	0.460	0.082	0.383	0.476					ø32×48
NCS HS 16704-2	38CrMoAl	0.141	0.581	0.790	0.0102	0.0100	1.86	0.103	0.054	0.508	0.341					ø32×48
NCS HS 16704-3	38CrMoAl	0.370	0.239	0.469	0.0166	0.0492	1.58	0.197	0.463	0.790	0.148					ø32×48
NCS HS 16704-4	38CrMoAl	0.706	0.224	0.196	0.0397	0.0375	1.97	0.479	0.07	0.247	0.391					ø32×48
NCS HS 16704-5	38CrMoAl	0.238	0.364	0.546	0.0268	0.0104	1.16	0.067	0.295	0.962	0.092					ø32×48
NCS HS 16704-6	38CrMoAl	0.532	0.310	0.421	0.0379	0.0093	0.99	0.045	0.120	1.38	0.044					ø32×48
Number	Name	Chemical Composition(Percent)											Unit Size (mm)			
		C	Si	Mn	P	S	Cr	Ni	V	Ti	As	Mo				
NCS HS 19701-1	Pig Iron	2.45	0.099	0.072	0.011	0.019	0.513	0.183	0.009	0.006	0.005					ø30×30
NCS HS 19701-2	Pig Iron	2.98	0.937	0.329	0.033	0.038	0.08	0.194	0.044	0.216	0.024					ø30×30
NCS HS 19701-3	Pig Iron	3.29	0.689	1.22	0.044	0.056	0.03	0.045	0.071	0.043	0.009					ø30×30
NCS HS 19701-4	Pig Iron	3.7	0.45	0.857	0.087	0.076	0.118	0.032	0.158	0.03	0.002	0.031				ø30×30
NCS HS 19701-5	Pig Iron	3.67	0.18	0.596	0.072	0.117	0.17	0.504	0.335	0.066	0.002	0.68				ø30×30
NCS HS 19701-6	Pig Iron	3.93	0.99	1.46	0.168	0.124	0.388	0.094	0.506	0.105	0.002	0.112				ø30×30
NCS HS 19701-7	Pig Iron	4.13	1.85	2.06	0.306	0.111	0.157	0.026	0.822	0.403	0.043					ø30×30
Number	Name	Chemical Composition(Percent)													Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	W	Mo	Co		
NCS HS 23703-1	Cr ₁₃	0.040	0.223	0.130	0.0062	0.0028	14.26	0.500	0.056	0.059	0.041	0.058	0.064	0.016	ø33×33	
NCS HS 23703-2	Cr ₁₃	0.245	0.420	0.337	0.0103	0.032	11.03	0.393	0.284	0.151	0.079	0.27	0.353	0.054	ø33×33	
NCS HS 23703-3	Cr ₁₃	0.159	0.568	0.495	0.0165	0.017	12.52	0.207	0.171	0.089	0.091	0.19	0.157	0.036	ø33×33	
NCS HS 23703-4	Cr ₁₃	0.340	0.772	0.740	0.0262	0.0054	9.37	0.461	0.374	0.201	0.371	0.38	0.244	0.078	ø33×33	
NCS HS 23703-5	Cr ₁₃	0.472	0.487	0.983	0.043	0.041	7.84	0.771	0.522	0.287	0.187	0.50	0.487	0.116	ø33×33	
Number	Name	Chemical Composition(Percent)										Unit Size (mm)				
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Mo					
NCS HS 23707a-1	GSiMnMoV	1.2	0.901	0.201	0.0036	0.048	0.108	0.454	0.514	0.045	0.086					ø35×35
NCS HS 23707a-2	GSiMnMoV	0.471	0.318	0.922	0.03	0.031	0.351	0.146	0.113	0.151	0.452					ø35×35
NCS HS 23707a-3	GSiMnMoV	0.176	0.083	1.25	0.043	0.011	0.45	0.107	0.086	0.434	0.563					ø35×35
NCS HS 23707a-4	GSiMnMoV	0.936	0.747	0.511	0.012	0.0094	0.24	0.356	0.274	0.335	0.252					ø35×35
NCS HS 23707a-5	GSiMnMoV	0.663	0.548	0.684	0.021	0.05	0.093	0.303	0.438	0.243	0.354					ø35×35
Number	Name	Chemical Composition(Percent)														Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Alt	W	Co		
NCS HS 23716-1	Heat Die Steel	0.763	0.36	0.216	0.032	0.013	3.24	0.291	0.092	0.767	0.27	0.0069	1.45	0.028	ø35×30	
NCS HS 23716-2	Heat Die Steel	1.11	0.29	0.104	0.038	0.005	5.6	0.407	0.075	0.5	0.05	0.0051	2	0.009	ø35×30	
NCS HS 23716-3	Heat Die Steel	0.393	1.37	0.842	0.017	0.029	4.38	0.148	0.205	1.26	0.8	0.077	0.5	0.105	ø35×30	
NCS HS 23716-4	Heat Die Steel	0.599	0.08	0.432	0.021	0.034	3.84	0.199	0.136	0.946	0.66	0.019	0.97	0.049	ø35×30	
NCS HS 23716-5	Heat Die Steel	0.088	1.09	1.67	0.005	0.021	2.43	0.084	0.474	1.94	1.17	0.087	0.08	1.98	ø35×30	
NCS HS 23716-6	Heat Die Steel	0.2	0.65	1.21	0.01	0.045	4.91	0.095	0.301	1.61	1.01	0.084	0.2	1.49	ø35×30	
			Sn	Pb												
NCS HS 23716-1	Heat Die Steel	0.0075	0.011													
NCS HS 23716-2	Heat Die Steel	0.007	0.074													
NCS HS 23716-3	Heat Die Steel	0.0076	0.0087													
NCS HS 23716-4	Heat Die Steel	0.02	(0.0001)													
NCS HS 23716-5	Heat Die Steel	0.052	0.0053													
NCS HS 23716-6	Heat Die Steel	0.032	(0.0001)													

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)												Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	W	Co		
NCSHS23717-1	Cold Die Steel	2.19	0.37	0.369	0.015	0.001	11.7	0.096	0.085	0.022	0.04	0.61	0.014	ø35×30	
NCSHS23717-2	Cold Die Steel	1.57	0.29	0.333	0.019	0.014	11.5	0.194	0.172	0.574	0.64	0.47	0.064	ø35×30	
NCSHS23717-3	Cold Die Steel	1.31	0.38	0.473	0.0072	0.023	10.1	0.094	0.131	0.854	0.48	0.69	0.035	ø35×30	
NCSHS23717-4	Cold Die Steel	0.869	0.05	0.044	0.044	0.003	14.2	0.436	0.364	0.082	1.07	0.07	0.166	ø35×30	
NCSHS23717-5	Cold Die Steel	1.88	0.18	0.16	0.03	0.005	12.7	0.297	0.228	0.333	0.82	0.31	0.096	ø35×30	
Number	Name	Chemical Composition(Percent)												Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	Al		
NCS HS 23718-1	Middle-Low alloy	0.496	0.25	0.732	0.051	0.014	0.81	1.47	0.439	0.504	0.52	0.325	0.02	ø35×30	
NCS HS 23718-2	Middle-Low alloy	0.115	0.79	2.02	0.06	0.006	1.78	0.494	0.082	0.079	0.12	0.105	0.06	ø35×30	
NCS HS 23718-3	Middle-Low alloy	0.201	0.7	1.24	0.015	0.049	0.4	1.02	0.299	0.251	0.22	0.232	0.661	ø35×30	
NCS HS 23718-4	Middle-Low alloy	0.356	0.42	1.68	0.0042	0.089	1.35	0.238	0.144	0.107	0.34	0.402	0.142	ø35×30	
NCS HS 23718-5	Middle-Low alloy	0.657	0.15	0.463	0.033	0.025	2.29	0.117	0.07	0.974	0.06	0.497	0.27	ø35×30	
NCS HS 23718-6	Middle-Low alloy	0.048	0.07	0.102	0.018	0.003	0.1	2	0.561	0.686	0.03	0.011	0.569	ø35×30	
Number	Name	Chemical Composition(Percent)												Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Al	W		Co
NCS HS 23720-1	Middle-Low alloy	0.763	0.359	0.216	0.032	0.013	3.24	0.291	0.092	0.767	0.268	0.0069	1.45	0.028	ø35×30
NCS HS 23720-2	Middle-Low alloy	1.11	0.286	0.104	0.038	0.0047	5.60	0.407	0.075	0.50	0.053	0.0051	2.00	0.0086	ø35×30
NCS HS 23720-3	Middle-Low alloy	0.393	1.37	0.842	0.017	0.029	4.38	0.148	0.205	1.26	0.80	0.077	0.496	0.105	ø35×30
NCS HS 23720-4	Middle-Low alloy	0.599	0.080	0.432	0.021	0.034	3.94	0.199	0.136	0.946	0.66	0.019	0.97	0.049	ø35×30
NCS HS 23720-5	Middle-Low alloy	0.088	1.09	1.67	0.0050	0.021	2.43	0.084	0.474	1.94	1.17	0.087	0.082	1.98	ø35×30
NCS HS 23720-6	Middle-Low alloy	0.200	0.649	1.21	0.010	0.045	4.91	0.095	0.301	1.61	1.01	0.084	0.204	1.49	ø35×30
		Sn	Pb												
NCS HS 23720-1	Middle-Low alloy	0.0075	0.011												
NCS HS 23720-2	Middle-Low alloy	0.0070	0.074												
NCS HS 23720-3	Middle-Low alloy	0.0076	0.0087												
NCS HS 23720-4	Middle-Low alloy	0.020	(0.0001)												
NCS HS 23720-5	Middle-Low alloy	0.052	0.0053												
NCS HS 23720-6	Middle-Low alloy	0.032	(0.0001)												

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	W	V	Alt		
NCS HS 24703-1	High Speed steel	0.757	0.065	0.069	0.0042	0.0043	2.55	0.072	0.046	0.16	18.68	0.154			ø35×30
NCS HS 24703-2	High Speed steel	0.731	0.207	0.286	0.022	0.022	2.96	0.156	0.249	0.42	15.99	0.44			ø35×30
NCS HS 24703-3	High Speed steel	0.909	0.309	0.244	0.025	0.026	3.25	0.203	0.223	0.88	14.41	0.84	0.079		ø35×30
NCS HS 24703-4	High Speed steel	0.821	0.443	0.307	0.025	0.024	3.54	0.383	0.211	1.57	11.71	1.23	0.059		ø35×30
NCS HS 24703-5	High Speed steel	1.11	0.349	0.313	0.049	0.036	3.90	0.196	0.348	2.51	9.27	2.03	0.101		ø35×30
NCS HS 24703-6	High Speed steel	1.09	0.352	0.405	0.034	0.034	4.26	0.201	0.248	3.75	6.85	2.77			ø35×30
NCS HS 24703-7	High Speed steel	0.996	0.648	0.293	0.026	0.026	5.19	0.224	0.203	6.52	1.80	4.51	0.128		ø35×30
NCS HS 24703-8	High Speed steel	0.917	0.281	0.616	0.020	0.040	4.59	0.245	0.148	4.93	4.33	3.56			ø35×30
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	Nb	Alt	
NCS HS28702a-1	Nodular Cast Iron	2.43	3.08	0.178	0.031	0.0037	1.98	3.7	1.35	2.06	0.45	0.057	0.054	0.007	ø30×30
NCS HS28702a-2	Nodular Cast Iron	2.86	1.67	0.384	0.042	0.0068	1.54	0.985	0.987	1.55	0.396	0.095	0.035	0.016	ø30×30
NCS HS28702a-3	Nodular Cast Iron	3.18	2.17	0.783	0.119	0.025	1.01	2.17	0.815	1	0.3	0.074	0.02	0.041	ø30×30
NCS HS28702a-4	Nodular Cast Iron	3.59	1.25	1.17	0.076	0.028	0.755	0.705	0.525	0.665	0.234	0.044	0.021	0.141	ø30×30
NCS HS28702a-5	Nodular Cast Iron	3.99	0.601	1.39	0.211	0.045	0.415	0.201	0.306	0.355	0.098	0.032	0.012	0.027	ø30×30
NCS HS28702a-6	Nodular Cast Iron	3.48	0.275	1.69	0.554	0.052	0.164	4.18	0.068	0.076	0.055	0.031	0.0041	0.0051	ø30×30
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		Mg	Ce	B	As	Sb	Pb	La							
NCS HS28702a-1	Nodular Cast Iron	0.11		0.171	0.051	0.0073	0.002								
NCS HS28702a-2	Nodular Cast Iron	0.04	0.088	0.114	0.033	0.0062	0.0017	0.011							
NCS HS28702a-3	Nodular Cast Iron	0.033	0.0089	0.053	0.037	0.0052	0.0048	0.0017							
NCS HS28702a-4	Nodular Cast Iron	0.017	0.044	0.028	0.024	0.015	0.011	0.0074							
NCS HS28702a-5	Nodular Cast Iron	0.011	0.017	0.012	0.032	0.0071	0.0043	0.0024							
NCS HS28702a-6	Nodular Cast Iron	0.0039		0.0077	0.081	0.0022	0.0006								
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	V	Cu	N	Nb	Ti	
NCS HS 28706-1	Line steel	0.055	0.29	1.81	0.011	0.0024	0.283	0.201	0.116	0.0043	0.205	0.0053	0.103	0.022	ø40×40
NCS HS 28706-2	Line steel	0.058	0.202	1.41	0.0072	0.0063	0.049	0.012	0.0014	0.042	0.013	0.004	0.05	0.016	ø40×40
NCS HS 28706-3	Line steel	0.083	0.194	0.559	0.01	0.007	0.024	0.009	0.002	0.0009	0.02	0.0053	0.011	0.003	ø40×40
NCS HS 28706-4	Line steel	0.086	0.246	1.2	0.011	0.006	0.022	0.008	0.0012	0.0014	0.015	0.0059	0.022	0.01	ø40×40
NCS HS 28706-5	Line steel	0.105	0.325	1.31	0.0087	0.0041	0.023	0.0089	0.0013	0.038	0.016	0.0067	0.035	0.02	ø40×40
NCS HS 28706-6	Line steel	0.108	0.279	1.23	0.013	0.006	0.026	0.0061	0.001	0.0012	0.01	0.0074	0.023	0.01	ø40×40
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		As	Alt	Als	Ca										
NCS HS 28706-1	Line steel	0.004	0.027	0.026	0.0009										
NCS HS 28706-2	Line steel	0.0032	0.028	0.026	0.0012										
NCS HS 28706-3	Line steel	0.0034	0.023	0.021	0.0017										
NCS HS 28706-4	Line steel	0.0043	0.016	0.015	0.0035										
NCS HS 28706-5	Line steel	0.0033	0.023	0.022	0.002										
NCS HS 28706-6	Line steel	0.0044	0.023	0.022	0.0013										

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)										Unit Size (mm)				
		C	Si	Mn	P	S	Cr	Ni	Cu	Al						
NCS HS 39701-1	Carbon Steel	0.108	0.029	1.15	0.0038	0.070	0.379	0.252	0.276	0.073					ø33×35	
NCS HS 39701-2	Carbon Steel	0.172	0.103	1.07	0.014	0.012	0.241	0.210	0.14						ø33×35	
NCS HS 39701-3	Carbon Steel	0.29	0.156	0.62	0.032	0.026	0.153	0.181	0.193						ø33×35	
NCS HS 39701-4	Carbon Steel	0.30	0.247	0.86	0.023	0.040	0.092	0.065	0.097						ø33×35	
NCS HS 39701-5	Carbon Steel	0.44	0.46	0.41	0.039	0.040	0.275	0.062	0.325	0.40					ø33×35	
NCS HS 39701-6	Carbon Steel	0.58	0.374	0.163	0.054	0.0033	0.34	0.343	0.38	0.463					ø33×35	
Number	Name	Chemical Composition(Percent)											Unit Size (mm)			
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Co		W	As	
NCS HS 11751	60Si ₂ Mn	0.661	1.82	0.805	0.027	0.017	0.021	0.020	0.136			0.011		0.016	ø38×45	
Number	Name	Chemical Composition(Percent)													Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Al _i	B			
NCS HS 11759	Carbon Steel	0.101	0.249	0.400	0.043	0.030	0.068	0.066	0.086			0.264	0.0014		ø37×45	
NCS HS 11760	Carbon Steel	0.202	0.512	1.34	0.046	0.032	0.078	0.050	0.057			0.092	0.0012		ø37×45	
NCS HS 11763	Carbon Steel	0.543	0.361	0.663	0.024	0.024	0.169	0.164	0.118			0.089	0.621		ø37×45	
NCS HS 11764	Carbon Steel	0.235	0.318	0.632	0.037	0.028	0.076	0.103	0.106			0.071			ø37×40	
NCS HS 11774	GCr ₁₅	1.02	0.250	0.340	0.015	0.023	1.48	0.036	0.037	0.022					ø36×50	
Number	Name	Chemical Composition(Percent)													Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Al _i	B			
NCS HS 11759	Carbon Steel		Sb	Sn	As	Pb										
NCS HS 11759	Carbon Steel			0.0024	0.0058											
NCS HS 11760	Carbon Steel			0.0059	0.012											
NCS HS 11763	Carbon Steel			0.0026	0.012											
NCS HS 11764	Carbon Steel	0.14	0.024	0.15	0.0011											
Number	Name	Chemical Composition(Percent)														Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Ti	V	As	Sn		
NCS HS 11775	Alloy Steel	0.084	0.787	1.62	0.029	0.002	25.53	20.72							ø35×20	
NCS HS 11782	Gray Iron	3.21	1.64	1.09	0.088	0.035	0.061	0.014	0.042	0.0048	0.027	0.0079	0.0065		ø31×28	
NCS HS 11783	Gray Iron	3.33	1.73	0.756	0.083	0.09	0.386	0.304	0.666	0.238	0.057	0.174	0.0085	0.066	ø31×28	
NCS HS 11784	High phosphorus Cast Iron	3.3	2.68	0.528	0.78	0.031	0.812	0.024	0.015	0.142	0.084	0.02		0.0005	ø31×28	
NCS HS 11785	High phosphorus Cast Iron	3.19	2.52	0.482	0.79	0.03	0.817	0.031	0.021	0.139	0.076	0.018		0.001	ø31×28	
NCS HS 11786	High phosphorus Cast Iron	2.82	2.05	0.768	1.7	0.064	1.98	0.048	0.044	0.251	0.102	0.029		0.0062	ø31×28	
NCS HS 11787	High Nickel pig Iron	2.65	2.07	1.08	0.067	0.037	1.98	19.84	0.306	0.0014	0.022	0.0096	0.0075	0.0054	ø31×28	
NCS HS 11788	High Nickel pig Iron	2.97	3.29	1.62	0.191	0.01	2.56	17.77	0.51	0.0013	0.043	0.017	0.014	0.0003	ø31×28	
NCS HS 11789	High Nickel pig Iron	1.97	2.58	1.08	0.048	0.076	2.51	17.8	6.39	0.062	0.011	0.0093	0.0076	0.014	ø31×28	
Number	Name	Chemical Composition(Percent)													Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Ti	V	As	Sn		
NCS HS 11783	Gray Iron	0.142														
NCS HS 11784	High phosphorus Cast Iron	0.0007	0.0012*	0.0002	0.0083	0.0041	0.0012*									
NCS HS 11785	High phosphorus Cast Iron	0.0005	(0.0009)	0.0002	0.013	0.0049	0.0030*									
NCS HS 11786	High phosphorus Cast Iron	0.0008	0.012	0.0003	0.015	0.0075	0.0094*									
NCS HS 11787	High Nickel pig Iron		0.0006*		0.042*		0.085*	0.0002*	0.0007	(0.0054)						
NCS HS 11788	High Nickel pig Iron		0.0006*		0.031*		(0.0023)	0.0002*	0.0008	(0.0063)						
NCS HS 11789	High Nickel pig Iron		0.0005*	0.015	0.067		0.061	0.0002*	0.0008	(0.0075)						

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Als	Alt	Ti	Nb	V	
NCS HS 11790	Silicon Steel	0.338	0.841	0.386	0.081	0.0066	0.73	1.52	0.027	0.536	0.538	0.234	0.278	0.035	ø37×40
NCS HS 11791	Silicon Steel	0.095	3.08	1.9	0.0063	0.023	0.032	0.022	0.066	0.34	0.35	0.012	0.0037	(0.0006)	ø37×40
NCS HS 11792	Pipe line steel	0.045	0.183	1.96	0.0075	0.0011	0.363	0.423	0.224	0.043	0.044	0.016	0.097	0.011	ø37×40
NCS HS 11793	Low alloy steel	0.037	0.257	1.59	0.126	0.015	0.452	0.08	0.15			0.239		0.064	ø37×40
		Mo	As	Sb	Sn	Zr	Ca	Bt							
NCS HS 11790	Silicon Steel	0.809	0.032	0.0011	0.00073	0.013									
NCS HS 11791	Silicon Steel	0.038	0.062	0.0018	0.023	0.023									
NCS HS 11792	Pipe line steel	0.324	0.0015				0.002	(0.0003)							
NCS HS 11793	Low alloy steel			0.015	0.042										
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	W	V	Ti	Nb	
NCS HS 93703-1	Medium-Low Alloy Steel	1.08	0.681	2.35	0.0057	(0.008)	3.98	0.028	0.048	0.0077	0.293	0.0090	0.473	0.351	ø33×35
NCS HS 93703-2	Medium-Low Alloy Steel	0.055	0.827	0.021	0.027	0.0033	3.09	1.09	0.422	1.56	1.97	0.376	0.346	0.254	ø33×35
NCS HS 93703-3	Medium-Low Alloy Steel	0.792	1.09	1.34	0.013	0.038	2.11	0.533	0.532	0.397	0.755	0.071	0.016	0.506	ø33×35
NCS HS 93703-4	Medium-Low Alloy Steel	0.475	2.57	0.612	0.015	0.015	1.31	2.01	0.687	0.977	1.48	0.709	0.035	0.167	ø33×35
NCS HS 93703-5	Medium-Low Alloy Steel	0.651	0.024	1.53	0.036	0.0052	0.021	2.98	0.236	0.631	0.05	0.231	0.111	0.0057	ø33×35
NCS HS 93703-6	Medium-Low Alloy Steel	0.246	0.274	0.211	0.045	0.0058	0.505	3.83	0.092	0.203	1.04	0.526	0.246	0.070	ø33×35
		Alt	Als	Co	Bt	Bs	Pb	Sn	As	Sb	Bi	Ca	Zr		
NCS HS 93703-1	Medium-Low Alloy Steel	0.387	0.381	0.0047	0.025	0.023	0.0016	0.014	0.032	(0.0001)	0.0011	0.0009	0.0031		
NCS HS 93703-2	Medium-Low Alloy Steel	0.92	0.91	0.262	0.0083	0.0080	0.0008	0.0069	0.0034	0.0020	0.0006	0.0010	0.087		
NCS HS 93703-3	Medium-Low Alloy Steel	0.107	0.103	0.488	0.0041	0.0037	0.0007	0.054	0.0019	0.0040	0.0004	0.0010	0.014		
NCS HS 93703-4	Medium-Low Alloy Steel	0.083	0.078	0.403	0.0050	0.0048	0.0006	0.012	0.056	0.0095	(0.0002)	(0.0001)	0.069		
NCS HS 93703-5	Medium-Low Alloy Steel	(1.29)	(1.27)	0.094	0.0017	0.0015	0.0007	0.015	0.0064	0.010	0.0015	0.0007	0.41		
NCS HS 93703-6	Medium-Low Alloy Steel	0.64	0.63	0.145	0.0033	0.0030	0.0011	0.017	0.011	0.0006	(0.0002)	(0.0001)	0.22		
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Al _s	Cu	Al _i	V	Ti	Mo		
NCS HS 13750	Low Alloy Steel	0.131	0.175	0.523	0.0126	0.0257	0.970						0.172		ø38×38
NCS HS 13752	Low Alloy Steel	0.517	0.204	0.986	0.0261	0.0108	0.685				0.094		0.258		ø38×38
NCS HS 13753	Low Alloy Steel	0.592	0.464	0.481	0.040	0.0397	0.752				0.122	0.0084	0.302		ø38×38
NCS HS 13754	Low Alloy Steel	0.136	0.444	0.624	0.131	0.021	0.856		0.384		0.192		0.378		ø38×38
NCS HS 13755	Low Alloy Steel	0.420	0.301	0.924	0.024	0.020	0.960						0.187		ø38×38
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Al _s	Cu	Al _i	V	Ti	Mo		
NCS HS 13758	Low Alloy Steel	0.165	0.502	1.451	0.0176	0.0221	0.34					0.173	0.143		ø38×35
NCS HS 13759	Low Alloy Steel	0.199	0.410	1.302	0.0171	0.022	0.384						0.161		ø38×35
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Al _s	Cu	Al _i	As	Ti	Mo		
NCS HS 18741	35CrMo	0.355	0.273	0.57	0.01	0.033	0.93	0.029	0.075	0.035	0.057	0.011	0.154		ø37×30
NCS HS 18742	16Mn	0.152	0.305	1.26	0.012	0.023	0.121		0.077		0.034	0.018			ø37×30

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		C	Si	Mn	P	S	Ni	Cr	W	Cu	Mo	V		N
NCS HS18743	M2Al(W ₆ Mo ₅ Cr ₄ V ₂ Al)	1.05	0.44	0.3	0.023	0.0014	0.18	4.31	6.18	0.17	5.1	1.87		D35×35
NCS HS18744	4Cr ₄ Mn ₁₈	0.42	0.48	17.1	0.016	0.042	0.06	4.03		0.1				D35×35
NCS HS18745	2Cr ₁₃	0.189	0.452	0.348	0.021	0.0034	0.132	12.58		0.079				D35×35
NCS HS18746	214N	0.533	0.222	9.34	0.025	0.0059	3.92	21.14		0.159	0.057	0.066	0.42	D35×35
NCS HS18747	318	0.254	1.31	0.547	0.023	0.0027	6.6	16.95		0.095	2.13	0.077	0.144	D35×35
NCS HS18748	0Cr ₁₇	0.027	0.617	0.408	0.031	0.0056	0.415	16.51		0.072				D35×35
NCS HS18749	4Cr ₉ Si ₂	0.466	2.08	0.612	0.036	0.026	0.543	8.64		0.112	0.055	0.033		D35×35
NCS HS18750	4Cr ₁₀ Si ₂ Mo	0.355	2.56	0.425	0.035	0.023	0.346	10.53		0.128	0.798	0.051		D35×35
NCS HS18751	3Cr ₂ W ₆ V	0.4	0.25	0.25	0.017	0.016	0.46	2.72	8.14	0.05				D35×35
NCS HS18752	H ₁₃ (4Cr ₅ MoSiV ₁)	0.34	1.17	0.4	0.017	0.01	0.15	5.3		0.08	1.18	1.04		D35×35
			Co	As	Al									
NCS HS18743	M2Al(W ₆ Mo ₅ Cr ₄ V ₂ Al)	0.28			0.96									
NCS HS18744	4Cr ₄ Mn ₁₈			0.014										
NCS HS18745	2Cr ₁₃			0.014										
NCS HS18746	214N	0.08												
NCS HS18747	318	0.044												
NCS HS18748	0Cr ₁₇			0.008										
NCS HS18749	4Cr ₉ Si ₂			0.017										
NCS HS18750	4Cr ₁₀ Si ₂ Mo			0.017										
NCS HS18751	3Cr ₂ W ₆ V													
NCS HS18752	H ₁₃ (4Cr ₅ MoSiV ₁)			0.029	0.06									
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		C	Si	Mn	P	S	Cr	Alt	Als	N	V	Ti	Mo	
NCS HS 20741	1Cr ₁₃ Mo	0.125	0.0045	0.957	0.017	0.0045	12.91						0.41	ø35×40
NCS HS 20742	1Cr ₁₇	0.083	0.636	1.02	0.015	0.0035	16.58							ø35×40
NCS HS 20743	0Cr ₁₁ Ti	0.015	0.97	0.949	0.038	0.0055	11.88	0.022	0.021	0.0155		0.411		ø35×40
NCS HS 20744	(08F)	0.068	0.022	0.331	0.018	0.03								ø35×40
NCS HS 20745	10PCuRE	0.068	0.33	0.813	0.1	0.024					0.022			ø35×40
NCS HS 20747	09MnNb	0.083	0.472	0.967	0.02	0.015								ø35×40
			Cu	Ce	Nb	La								
NCS HS 20745	10PCuRE	0.297	0.014		0.0076									
NCS HS 20747	09MnNb			0.052										
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Cu	Pb	Zn	P	Fe	Sn	Sb	Bi	Mn	Ni	Si		
NCS HS 28749	Lead Brass	57.09	1.74	41.11	<0.0015	0.017	0.017	<0.0015	<0.0010	0.0015	0.013	0.0012		ø38×30
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		C	S	Si	Mn	P	Cr	Ni	Mo	Cu	V	Ti		
NCS HS 37701-1	High Chromium Cast Iron	3.43	0.010	0.055	1.59	0.161	1.35	1.55	3.11	0.193	1.01	0.008		ø30×25
NCS HS 37701-2	High Chromium Cast Iron	3.00	0.016	0.56	1.42	0.133	7.23	1.43	2.48	0.324	0.88	0.015		ø30×25
NCS HS 37701-3	High Chromium Cast Iron	2.73	0.036	0.99	1.09	0.105	12.97	1.20	2.08	0.451	0.66	0.045		ø30×25
NCS HS 37701-4	High Chromium Cast Iron	2.31	0.046	1.40	0.725	0.071	17.60	0.914	1.44	0.739	0.46	0.084		ø30×25
NCS HS 37701-5	High Chromium Cast Iron	1.83	0.091	1.80	0.466	0.043	23.40	0.517	0.739	0.904	0.26	0.068		ø30×25
NCS HS 37701-6	High Chromium Cast Iron	1.45	0.123	2.38	0.254	0.024	28.96	0.216	0.213	1.15	0.13	0.084		ø30×25

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Al	Co	Ti	Mo	Cu		
NCS HS 31741	3Cr ₁₃	0.298	0.277	0.330	0.026	0.019	12.75	0.271		0.035		0.067	0.109	ø38×30	
NCS HS 31742	1Cr ₁₈ Ni ₉ Ti	0.096	0.566	1.27	0.030	0.005	17.25	8.22	0.098	0.112	0.555	0.132	0.307	ø38×30	
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Nb	Cu	As	Sn	V	
NCS HS 41742	Stainless steel	0.026	0.386	0.659	0.031	0.00052	25.05	6.38	3.45	0.011	0.155	0.0045	0.0039	0.049	ø38×38
NCS HS 41743	Stainless steel	0.047	0.542	0.691	0.035	0.0044	15.85	3.53	0.195	0.202	3.37	0.0097	0.013	0.067	ø38×38
NCS HS 41744	Stainless steel	0.137	0.297	7.98	0.045	0.0091	16.01	4.12	0.052		0.123	0.0043	0.0046	0.049	ø38×38
Number	Name	Chemical Composition(Percent)			Unit Size (mm)										
		Co	W	N											
NCS HS 41742	Stainless steel	0.063	0.018	0.237	ø38×38										
NCS HS 41743	Stainless steel	0.063	0.058	0.014	ø38×38										
NCS HS 41744	Stainless steel	0.078	0.0055	0.049	ø38×38										
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Nb	Cu	Pb	As	Sn	
NCS HS 93701-1	Middle low alloy	0.062	1.23	0.093	0.024	0.0060	1.85	0.30	4.19	0.85	0.22	0.038	0.004	0.0020	ø36×30
NCS HS 93701-2	Middle low alloy	0.111	0.32	0.934	0.015	0.0041	2.48	0.59	4.05	1.04	0.177	0.017	0.011	0.0083	ø36×30
NCS HS 93701-3	Middle low alloy	0.164	0.98	0.379	0.0099	0.0133	3.86	0.813	2.43	0.72	0.109	0.012	0.0146	0.0215	ø36×30
NCS HS 93701-4	Middle low alloy	0.309	0.198	1.06	0.0081	0.0126	4.83	0.480	1.86	0.290	0.31	0.007	0.0174	0.0180	ø36×30
NCS HS 93701-5	Middle low alloy	0.429	0.71	0.76	0.0082	0.0398	3.08	0.930	2.93	0.472	0.38	0.0066	0.069	0.037	ø36×30
Number	Name	Chemical Composition(Percent)			Unit Size (mm)										
		Sb	Bi	Zr											
NCS HS 93701-1	Middle low alloy	0.0515	0.0019	0.103	ø36×30										
NCS HS 93701-2	Middle low alloy	0.035	0.0064	0.57	ø36×30										
NCS HS 93701-3	Middle low alloy	0.032	0.0102	0.436	ø36×30										
NCS HS 93701-4	Middle low alloy	0.0077	0.013	0.112	ø36×30										
NCS HS 93701-5	Middle low alloy	0.00403	0.0203	0.234	ø36×30										
Number	Name	Chemical Composition(Percent)							Unit Size (mm)						
		C	Si	Mn	P	S	Cr	Ni							
NCS HS 93702-1	Alloy steel	0.053	1.37	5.02	0.055	0.0027	17.51	2.44	ø38×30						
NCS HS 93702-2	Alloy steel	0.18	1.04	6.60	0.038	0.010	15.26	3.61	ø38×30						
NCS HS 93702-3	Alloy steel	0.28	0.94	8.37	0.024	0.016	12.67	4.56	ø38×30						
NCS HS 93702-4	Alloy steel	0.35	0.74	11.00	0.018	0.025	10.72	5.67	ø38×30						
NCS HS 93702-5	Alloy steel	0.42	0.40	12.93	0.011	0.033	8.22	6.68	ø38×30						
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	Alt	Co	
NCS HS 28741	Stainless Steel	0.039	0.425	1.07	0.037	0.016	18.31	8.19	0.399	0.027	0.106	0.002*		0.208	ø38×35
NCS HS 28742	Stainless Steel	0.021	0.414	0.94	0.034	0.0028	18.2	8.11	0.043	0.025	0.089	0.006		0.216	ø38×35
NCS HS 28743	Stainless Steel	0.11	0.78	0.841	0.024	0.0082	23.71	18.02	0.089	0.115	0.077	0.003*	0.0056	0.102	ø38×35
NCS HS 28745	Stainless Steel	0.018	0.317	1.17	0.042	0.0057	16.61	10.34	0.334	2.05	0.07	0.002*		0.185	ø38×35
NCS HS 28746	Stainless Steel	0.021	0.51	1.87	0.031	0.0009	17.19	8.24	0.34	0.069	0.096	0.184	0.086	0.191	ø38×35
NCS HS 28747	Stainless Steel	0.132	0.502	0.453	0.027	0.0068	16.24	1.79	0.126	0.153	0.075	0.002*		0.051	ø38×35
NCS HS 28748	Stainless Steel	0.045	0.644	0.742	0.028	0.013	15.88	3.85	3.23	0.259	0.076	0.002*		0.119	ø38×35
Number	Name	Chemical Composition(Percent)					Unit Size (mm)								
		Nb	Sn	Pb	N	As									
NCS HS 28741	Stainless Steel		0.0051	0.0001	0.069	0.0035	ø38×35								
NCS HS 28742	Stainless Steel		0.0001*	0.0001	0.059	0.0025	ø38×35								
NCS HS 28743	Stainless Steel	0.016	0.0025	0.0004	0.057	0.0042	ø38×35								
NCS HS 28745	Stainless Steel		0.0073	0.0001	0.07	0.0055	ø38×35								
NCS HS 28746	Stainless Steel		0.0065	0.0002	0.011	0.0032	ø38×35								
NCS HS 28747	Stainless Steel		0.0057	0.0001	0.03	0.0063	ø38×35								
NCS HS 28748	Stainless Steel	0.23	0.0063	0.0001	0.03	0.0047	ø38×35								

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	S	Mn	Si	P	Ni	Cr	Fe	Mo	Ti	Al	Cu	V	
NCS HS 41745	Nickel-based superalloy	0.043	0.0006	0.124	0.071	0.0023	63.72	20.69	3.50	8.37	0.011	0.016			ø40×30
NCS HS 41746	Nickel-based superalloy	0.027	0.0005	0.057	0.080	0.0033	52.27	18.56	18.54	3.28	1.03	0.635	0.023	ø40×30	
NCS HS 41747	Corrosion-resisting alloy	0.071	0.0006	0.807	0.36	0.015	32.27	20.72		0.297	0.49	0.299	0.038	ø38×30	
NCS HS 41748	Stainless Steel	0.194	0.011	0.62	0.54	0.016	0.077	12.70		0.010			0.008	0.048	ø38×38
NCS HS 41749	Stainless Steel	0.21	0.012	0.39	0.56	0.023	1.52	12.27					1.15	0.074	ø38×38
NCS HS 41750	Stainless Steel	0.075	0.012	1.43	0.33	0.031	6.35	16.31		0.107		0.009	0.276	0.064	ø38×38
NCS HS 41751a	Stainless Steel	0.075	0.16	1.7	0.71	0.035	8.07	17.41		0.33			0.26	0.068	ø38×38
NCS HS 41752	Stainless Steel	0.97	0.0016	0.46	0.48	0.023	0.192	17.61		0.057			0.082	0.088	ø38×38
NCS HS 41753a	Stainless Steel	0.012	0.013	0.973	0.48	0.021	24.28	19.16			0.004		1.26	0.075	ø38×38
			Ta*	Ta**	Co	B	Nb	Co*	Mo	N	Ti*	Al*	Pb*	Nb*	W
NCS HS 41745	Nickel-based superalloy			0.001			3.19	0.011							
NCS HS 41746	Nickel-based superalloy	0.008			0.111	0.0025	5.15								
NCS HS 41747	Corrosion-resisting alloy				0.050										
NCS HS 41749	Stainless Steel								0.158						
NCS HS 41750	Stainless Steel									0.058	0.001				
NCS HS 41751a	Stainless Steel				0.13					0.077					
NCS HS 41752	Stainless Steel											0.032			
NCS HS 41753a	Stainless Steel				0.18		0.812		4.25	0.041	0.004				0.058
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	S	Mn	Si	P	Cr	Ni	Cu	Mo	Al	V	Ti	Mo	
NCS HS 41754	Alloy Structure Steel	0.197	0.0055	1.01	0.28	0.008	1.33	0.060	0.010	0.26	0.017	0.005	0.003		ø38×32
NCS HS 41755	Alloy Structure Steel	0.23	0.004	0.27	0.044	0.0046	1.64	3.40						0.37	ø38×38
NCS HS 41756	Alloy Structure Steel	0.205	0.002	0.60	0.25	0.011	0.93	0.012	0.008	0.17		0.004	0.004		ø38×32
NCS HS 41757	Easy cutting Steel	0.079	0.28	1.01	0.018	0.055	0.047	0.058	0.17	0.012					ø38×32
NCS HS 41758	Easy cutting Steel	0.079	0.30	0.986	0.015	0.056	0.023	0.051	0.15	0.049					ø38×32
NCS HS 41759	Alloy Structure Steel	0.21	0.008	0.57	0.21	0.012	0.78	0.015	0.025		0.017	0.003	0.0034		ø38×32
NCS HS 41760	Stainless steel	0.153	0.0071	0.56	0.26	0.035	16.30	1.92	0.078	0.055	0.005	0.081	0.002		ø38×38
NCS HS 41761	Alloy Structure Steel	0.121	0.0026	0.463	0.335	0.014	8.71	0.064	0.055	0.93	0.005	0.21			ø38×38
		V	Sn	Pb	As	Nb	N								
NCS HS 41755	Alloy Structure Steel	0.080													
NCS HS 41757	Easy cutting Steel		0.019	0.26	0.025										
NCS HS 41758	Easy cutting Steel		0.020	0.018	0.026										
NCS HS 41760	Stainless steel					0.012									
NCS HS 41761	Alloy Structure Steel					0.072	0.040								
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	V	Cu	Ti	W	B	
NCS HS 92703-1	High Chromium Cast Iron	3.31	0.098	1.54	0.369	0.0047	1.17	2.57	1.47	0.952	0.449	/	0.015	0.177	ø30×30
NCS HS 92703-2	High Chromium Cast Iron	2.96	0.491	1.24	0.211	0.0077	9.75	1.99	2.17	0.669	1.57	0.300	1.99	0.142	ø30×30
NCS HS 92703-3	High Chromium Cast Iron	2.40	0.821	1.06	0.115	0.015	13.30	1.55	0.869	0.482	0.953	0.171	1.57	0.102	ø30×30
NCS HS 92703-4	High Chromium Cast Iron	2.00	1.16	0.803	0.090	0.025	18.28	1.07	0.598	0.380	0.738	0.087	1.05	0.086	ø30×30
NCS HS 92703-5	High Chromium Cast Iron	1.48	1.37	0.579	0.041	0.058	22.55	0.708	0.359	0.314	0.583	0.056	0.694	0.076	ø30×30
NCS HS 92703-6	High Chromium Cast Iron	1.16	1.44	0.302	0.033	0.086	25.76	0.289	0.150	0.146	0.845	0.019	0.370	0.055	ø30×30
NCS HS 92703-7	High Chromium Cast Iron	3.13	2.48	0.201	0.024	0.116	31.26	0.129	0.086	0.087	0.154	0.033	0.175	0.015	ø30×30
		Nb													
NCS HS 92703-1	High Chromium Cast Iron	0.018													
NCS HS 92703-2	High Chromium Cast Iron	0.182													
NCS HS 92703-3	High Chromium Cast Iron	0.149													
NCS HS 92703-4	High Chromium Cast Iron	0.071													
NCS HS 92703-5	High Chromium Cast Iron	0.022													
NCS HS 92703-6	High Chromium Cast Iron	0.014													
NCS HS 92703-7	High Chromium Cast Iron	0.010													

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	V	Cu	Mg	
NCS HS 92744	Alloy Cast Iron	3.58	1.74	0.44	0.034	0.018	0.50	0.59	0.18	0.20	0.26	0.039	ø30×27
NCS HS 92745	Alloy Cast Iron	3.69	1.50	0.49	0.063	0.049	0.47	0.23	0.22	0.11	0.34		ø30×30
NCS HS 92746	Alloy Cast Iron	3.36	2.44	0.231	0.040	0.0060	0.16	2.24				0.033	ø30×30
			Ti	B	Sn	Sb	Ce						
NCS HS 92744	Alloy Cast Iron	0.055	0.019	0.0045									
NCS HS 92745	Alloy Cast Iron				0.12								
NCS HS 92746	Alloy Cast Iron	0.073				0.0060							
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Nb	
NCS HS 93743	Stainless Steel	0.044	0.723	1.2	0.035	0.0013	18.45	9.21	0.148	0.405	0.068	0.504	D37X35
NCS HS 93744	Stainless Steel	0.014	0.185	0.85	0.021	0.0031	19.62	23.45	1.23	4.4	0.054	0.086	D37X35
NCS HS 93745	Stainless Steel	0.206	0.3	0.474	0.014	0.0036	10.5	0.639	0.072	0.748	0.196	0.353	D37X35
			Co	Ti	Alt	W	Sn	N					
NCS HS 93743	Stainless Steel	0.118											
NCS HS 93744	Stainless Steel	0.169	0.01	0.161	0.086								
NCS HS 93745	Stainless Steel	0.032				0.005	0.071						
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	P	S	Ni	Cr	Cu	Mo	V	Ti	
NCS HS28705a-1	Pig Iron	4.3	0.228	1.48	0.014	0.153	0.012	0.022	0.0079	0.0035	0.558	0.0093	ø30×30
NCS HS28705a-2	Pig Iron	3.73	0.61	1.34	0.056	0.147	0.06	0.077	0.071	0.071	0.489	0.032	ø30×30
NCS HS28705a-3	Pig Iron	3.5	1.32	1.12	0.188	0.114	0.18	0.142	0.136	0.147	0.356	0.225	ø30×30
NCS HS28705a-4	Pig Iron	3.27	1.96	0.85	0.147	0.09	0.371	0.233	0.233	0.261	0.257	0.248	ø30×30
NCS HS28705a-5	Pig Iron	2.91	2.54	0.65	0.104	0.053	0.54	0.382	0.326	0.347	0.173	0.287	ø30×30
NCS HS28705a-6	Pig Iron	2.44	3.31	0.403	0.298	0.03	0.792	0.46	0.404	0.427	0.067	0.342	ø30×30
NCS HS28705a-7	Pig Iron	1.72	3.94	0.172	0.452	0.0091	0.99	0.525	0.51	0.524	0.016	0.586	ø30×30
			Alt	Als	Sn	Co	Pb	B	Sb	Zn	As		
NCS HS28705a-1	Pig Iron	0.031	0.028	0.0006	0.082	0.0015	0.0008	0.0006	0.0006	0.0033			
NCS HS28705a-2	Pig Iron	0.0047	0.004	0.43	0.108	0.0002	0.0031	0.08	0.0009	0.0046			
NCS HS28705a-3	Pig Iron	0.076	0.074	0.033	0.056	0.0046	0.019	0.038	0.001	0.061			
NCS HS28705a-4	Pig Iron	0.052	0.05	0.065	0.038	0.017	0.075	0.052	0.0016	0.082			
NCS HS28705a-5	Pig Iron	0.125	0.12	0.108	0.02	0.0042	0.088	0.077	0.002	0.046			
NCS HS28705a-6	Pig Iron	0.065	0.061	0.187	0.0061	0.016	0.133	0.13	0.0025	0.015			
NCS HS28705a-7	Pig Iron	0.19	0.182	0.294	0.0048	0.022	0.225	0.228	0.0034	0.0061			
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		C	Si	Mn	S	Cu	Fe	Cr	Mo	Co	V	W	
NCS HS35740	Corrosion-resistant alloy	0.026	0.493	1.27	0.0018*	0.024	4.03	15.62	19.72	2.49	0.149	3.59	ø35 x 20
NCS HS35741	Corrosion-resistant alloy	0.046	1.22	0.909	0.016		2.97	16.46	18.44	1.7	0.282	4.02	ø35 x 20
NCS HS35742	Corrosion-resistant alloy	0.2	1.4	0.1	0.035	0.45	8	20	15.9	0.055	0.62	6	ø35 x 20
NCS HS35743	Corrosion-resistant alloy	0.084	1.01	0.597	0.031	0.019	5.94	0.375	27.94	1.7	0.212	0.096	ø35 x 20
			Ti	Al	N	Ni*	P	Nb	Zr*	Ni			
NCS HS35740	Corrosion-resistant alloy	0.267	0.008	0.004									
NCS HS35741	Corrosion-resistant alloy	0.181	0.005	0.0091	53.8	0.05							
NCS HS35742	Corrosion-resistant alloy	0.2	0.7	0.008									
NCS HS35743	Corrosion-resistant alloy	0.034	0.016	0.0013		0.049	0.056	0.016	61.8				

Section 2 Iron, Steel & Alloy(Disk)

Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	Ti	W	
NCS HS37702-1	Medium-Low Alloy Steel	0.957	0.146	2.07	0.053	0.009	0.127	0.124	0.498	0.134	0.061	0.013	0.055	ø36×36
NCS HS37702-2	Medium-Low Alloy Steel	0.747	0.255	1.62	0.043	0.023	0.638	0.49	0.421	0.215	0.161	0.007	0.114	ø36×36
NCS HS37702-3	Medium-Low Alloy Steel	0.566	0.475	1.26	0.028	0.039	1.23	1.07	0.312	0.299	0.264	0.209	0.227	ø36×36
NCS HS37702-4	Medium-Low Alloy Steel	0.441	0.707	0.854	0.036	0.064	1.86	1.61	0.214	0.398	0.365	0.298	0.431	ø36×36
NCS HS37702-5	Medium-Low Alloy Steel	0.197	0.777	0.432	0.02	0.111	2.54	2.52	0.117	0.452	0.453	0.065	0.397	ø36×36
NCS HS37702-6	Medium-Low Alloy Steel	0.03	1.11	0.143	0.012		2.98	2.17	0.063	0.526	0.563	0.024	0.507	ø36×36
			Nb	N	As	Al								
NCS HS37702-1	Medium-Low Alloy Steel	0.023	0.007	0.004	0.301									
NCS HS37702-2	Medium-Low Alloy Steel	0.064	0.012	0.008	0.297									
NCS HS37702-3	Medium-Low Alloy Steel	0.116	0.014	0.006	0.124									
NCS HS37702-4	Medium-Low Alloy Steel	0.158	0.015	0.006	0.19									
NCS HS37702-5	Medium-Low Alloy Steel	0.225	0.053	0.003	0.184									
NCS HS37702-6	Medium-Low Alloy Steel	0.237	0.052	0.002	0.043									
Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Ti	V	Sn	
NCS HS93750	Heat - resisting alloy	0.365	2.34	0.94	0.025	0.001	24.56	19.19	0.038	0.022	0.016	0.082	0.016	ø38×40
			As*	Al*	B*	Nb	Sb*	Pb*	Co	W	N			
NCS HS93750	Heat - resisting alloy	0.002	0.005	0.0005	1.37	0.009	0.002	0.029	0.013	0.064				

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Cu	Al	Ca	Fe					
NCSHC 11601a	Ferro Silicon	0.073	73.75	0.26	0.023	0.003	0.085	0.031	1.14	0.34				100		
NCSHC 11602a	High Carbon Ferromanganese	6.69	0.08	68.94	0.143	0.005								70		
NCSHC 11602b	High Carbon Ferromanganese	6.82	0.111	75.41	0.134	0.005								70		
NCSHC 11602c	High Carbon Ferromanganese	6.15	1.88	66.2	0.11	0.013								70		
NCSHC 11603a	Mn-Si Alloy	1.33	17.49	65.67	0.065	0.011								100		
NCSHC 11603b	Mn-Si Alloy	1.34	17.63	66.37	0.065	0.008								100		
NCSHC 11603c	Mn-Si Alloy	1.26	18.45	66.65	0.115	0.018								70		
NCSHC 11604a	Si-Ca Alloy	0.94	56.02	0.037	0.054	0.073			1.97	30.45	6.93			50		
NCSHC 11606	High Carbon Ferrochromium	6.37	4.29	0.32	0.023	0.013	64.17							100		
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	V	As	Cu	Ni	Al	Ta	Ti	Nb		
NCSHC 11605	Si-Ca-Ba-Sr	0.385	53.46	0.075	0.014	0.039			0.079	0.023	2.34				60	
NCSHC 11607	Ferro Vanadium	0.235	1.67	0.321	0.121	0.01	49.4	0.021	0.022						70	
NCSHC 11608	Ferro Vanadium	0.109	0.653	0.106	0.021	0.035	79.27	0.0024	0.0089	0.01	1.41				70	
NCSHC 11609	Ferro Niobium	0.114	1.34	0.37	0.172	0.014			0.059		0.711	0.087	0.87	64.89	70	
NCSHC 11610	Nitride Ferrochrome	0.04	0.525	0.313	0.02	0.042									70	
NCSHC 11611	Ferrosilicon	0.035	74.03	0.25	0.02	0.0023					1.41				60	
NCSHC 11612	Ferroboration	0.086	0.353	0.305	0.02	0.0018		20.82			0.018				70	
NCSHC 11613	Ferroboration	0.181	0.549	0.35	0.03	0.0023		17.65			0.035				70	
NCSHC 11614	Ferro Phosphorus	0.032	0.6	0.638	25.81	0.0038							2.14		70	
NCSHC 11615	Ferro Phosphorus	0.13	0.382	1.07	21.49	0.061							0.62		70	
NCSHC 11616	Ferro Nickel	2.12	3.25	0.051	0.039	0.283			0.022	13.34					60	
NCSHC 11617	Ferro Nickel	1.85	3.11	0.041	0.037	0.213			0.021	16.45					60	
NCSHC 11618	Ferro Nickel	1.65	2.54	0.053	0.032	0.211			0.021	10.7					60	
NCSHC 11619	Si-Ca Alloy	0.55	61.11	0.053	0.048	0.029					2.15				50	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		Cr	N	Ca	B	Co	Fe	Mg	Ba	TFe	Sr					
NCSHC 11605	Si-Ca-Ba-Sr	0.054		13.22				0.022	14.02	13.57	0.235					
NCSHC 11610	Nitride Ferrochrome	58.83	4.76													
NCSHC 11611	Ferrosilicon	0.063		0.208												
NCSHC 11612	Ferroboration				20.82											
NCSHC 11613	Ferroboration				17.65											
NCSHC 11616	Ferro Nickel	1.98				0.247										
NCSHC 11617	Ferro Nickel	1.87				0.241										
NCSHC 11618	Ferro Nickel	1.56				0.198										
NCSHC 11619	Si-Ca Alloy			27.15			6.61									
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		Si	Ca	Ba	Al	Mn	P	C	S	Fe						
NCSHC 13602	Si-Al-Ba-Alloy	32.01	1.17	7.41	32.55	0.197	0.017	0.27	0.0096	20.59	0.85			50		
Number	Name	Chemical Composition(Percent)														Unit Size (in g)
		C	Si	Mn	P	S	Cr	Cu	Al	Ca	Fe	Ni	Ba			
NCSHC 14602	Si-Al-Ba	0.14	19.21	0.25	0.015	0.013	0.017	0.137	32.82	0.85	38.09	0.014	6.52	70		
NCSHC 14603	Si-Al-Ba	0.13	24.12	0.14	0.015	0.015	0.085	0.061	32.84	0.71	33.54	0.042	7.57	70		
NCSHC 14604	Si-Al-Ba	0.24	19.21	0.25	0.011	0.011	0.053	0.172	25.44	0.44	49.14	0.018	2.64	70		
NCSHC 14605	Si-Al-Ba	0.13	25.94	0.12	0.018	0.012	0.152	0.045	36.67	1.35	24.97	0.167	9.12	60		
NCSHC 14608	Si-Al-Ca-Ba Alloy	0.13	0.021	0.17	0.022	0.021	0.176	9.14	8.28	14.22	0.0061	12.39		60		
NCSHC 14609	Si-Al-Ca-Ba Alloy	0.22	33.41	0.33	0.018	0.017	0.116	0.32	14.46	5.74	35.46	0.016	7.72	60		
NCSHC 14610	Si-Al-Ca-Ba Alloy	0.24	40.58	0.23	0.021	0.025	0.032	0.29	13.47	8.25	23.25	0.012	10.70	60		
NCSHC 14611	Si-Al-Ca-Ba Alloy	1.56	56.74	0.065	0.016	0.14	0.0044	0.0097	1.47	13.61	5.77	0.0020	17.00	60		
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		V	Co	Ti	B	Mo	Mg	Sn	As	O	Sr					
NCSHC 14608	Si-Al-Ca-Ba Alloy		0.0022	0.084			0.21				0.132					
NCSHC 14609	Si-Al-Ca-Ba Alloy			0.055			0.18				0.092					
NCSHC 14610	Si-Al-Ca-Ba Alloy			0.124			0.12				0.094					
NCSHC 14611	Si-Al-Ca-Ba Alloy			0.126			0.045				0.22					

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mg	Al	Ca	Ba	TFe	
NCS HC 14612	Ferro Silicon	0.016	77.49	0.02	0.0074	0.003	0.0044	0.016	0.011		0.0074	0.0067	22.12		60
NCS HC 14613	High Carbon Ferrochromium	7.56	2.58	0.18	0.02	0.032	54.04								50
NCS HC 14614	High Carbon Ferrochromium	7.67	2.57	0.28	0.018	0.032	55.81								50
NCS HC 14615	High Carbon Ferrochromium	8.07	2.3	0.23	0.017	0.045	56.16								50
NCS HC 14615a	High Carbon Ferrochromium	8.00	1.96	0.24	0.017	0.015	57.44	0.23							
			Co	Ti	B	V	Fe								
NCS HC 14612	Ferro Silicon	0.0012	0.011	0.0022											
NCS HC 14615a	High Carbon Ferrochromium				0.28	31.46									
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Cu	Al	Ca	Fe	Ni	Ti	Mo	
NCS HC 15601	Ferro Titanium	0.057	1.47	0.106	0.0071	0.0047	0.039	0.037	0.3		26.57	0.29	70.02	0.028	50
NCS HC 15602	Ferro Silicon	0.0074	75.9	0.149	0.014	0.0035	0.077	0.057	0.011	0.0013	23.65	0.026	0.027		50
			V												
NCS HC 15601	Ferro Titanium	0.011													
NCS HC 15602	Ferro Titanium	0.0036													
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Cu	Al	Ca	Ni	Ti	Nb	Ta	
NCS HC 18601	Ferro Silicon	0.19	72.44	0.205	0.019	0.010	0.109		2.16	0.64					50
NCS HC 18603	Si-Mn alloy	1.70	17.21	66.70	0.183	0.025									50
NCS HC 18604	Ferro Titanium	0.065	4.68	2.67	0.043	0.013		0.117	5.38		27.93				50
NCS HC 18606	Ferro Niobium	0.070	1.09	0.29	0.159	0.008			1.35		0.78	66.24	0.084		50
NCS HC 18608	Ferro Vanadium	0.403	0.76	0.26	0.049	0.043			0.158						50
			Mo	V											
NCS HC 18608	Ferro Vanadium		48.93												

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		C	Si	Mn	P	Cr	Al	Ca	Fe	S	V	Sn	Ti		
NCS HC 19602	Ferro Silicon	0.12	69.47	0.308	0.027	0.077	2.45	2.47	23.81					50	
NCS HC 19604	Ferro Titanium	0.041	3.46	1.59	0.051		10.64			0.011	0.158	0.056	43.82	100	
NCS HC 19605	Ferro Titanium	0.032	4.20	0.81	0.032		8.58			0.009	0.303	0.061	38.78	100	
NCS HC 19606	Ferro Vanadium	0.565	0.68	0.43	0.087	0.32	0.084			0.010	51.14			50	
NCSHC19606a	Ferrovanadium	0.171	0.901	0.39	0.042	0.194	0.70			0.028	54.68		0.079	100	
NCS HC 19607	Silicon Manganese Alloy	1.56	18.41	66.2	0.126					0.022				50	
NCS HC 19608	Ferro Molybdenum	0.042	0.32		0.032					0.073				50	
NCS HC 19609	Ferro Molybdenum	0.039	0.039*		0.041					0.085				25	
NCS HC 19610	Vanadium pentoxide		0.40		0.007	0.099			0.43	0.014				50	
NCS HC 19611	Vanadium pentoxide		0.102		0.010	0.018			0.061	0.011				50	
NCS HC 19612	Ferrovanadium	0.151	0.68	0.12	0.025	0.146	1.26			0.041	80.10		0.025	100	
			Cu	V ₂ O ₅	K ₂ O	Na ₂	As	Mo	Ni						
NCSHC19606a	Ferrovanadium							0.0026	0.015						
NCS HC 19608	Ferro Molybdenum	0.134						61.20							
NCS HC 19609	Ferro Molybdenum	0.36						58.13							
NCS HC 19610	Vanadium pentoxide		96.68	0.18	0.96	<0.001									
NCS HC 19611	Vanadium pentoxide		98.80	0.14	1.03	<0.001									
NCS HC 19612	Ferrovanadium							0.0016	0.008						
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		TV	Si	P	S	Mn	Fe	Cr	Ti	K	Na				
NCS HC19613	Vanadium Pentoxide	54.40	0.137	0.0078	0.192	0.055	0.30	0.128	0.063	0.11	0.31			25	
NCS HC19613a	Vanadium Pentoxide	54.60	0.120	0.0065	0.160	0.030	0.183	0.133	0.042	0.11	0.27			25	
NCS HC19613b	Vanadium Pentoxide	54.39	0.112	0.0074	0.172	0.018	0.119	0.147	0.022	0.11	0.25			25	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Mn	P	S	Cr	Cu	Al	Ti	W	B	Ca		
NCS HC 25602a	Ferromolybdenum	0.020	0.20		0.031	0.042		0.159						50	
NCS HC 25603b	High Carbon Ferro Chrome	7.37	1.27	0.31	0.020	0.015	65.27			0.104				50	
NCS HC 25605a	Si-Mn alloy	1.09	18.28	66.3	0.145	0.0104				0.18		0.0063		50	
NCS HC 25605b	Si-Mn Alloy		14.20	69.77	0.153	0.0052							2.21	50	
NCS HC 25605c	Si-Mn Alloy	0.456	21.87	67.2	0.132	0.0076	0.029	0.019		0.175		0.010		50	
NCS HC 25606	Ferro Tungsten	0.055	0.34	0.12	(0.028)	0.048		0.043			76.66			50	
NCS HC 25606a	Ferro Tungsten	0.036	0.34	0.102	0.033	0.052		0.079			76.24			50	
NCS HC 25616	Ferro Silicon	0.081	76.74	0.17	0.02	0.004	0.14			1.80			0.30	50	
NCS HC 25618	Ferro Silicon	0.066	76.42	0.14	0.025	0.003	0.097			0.78			0.19	50	
NCS HC 25619a	Medium Carbon Ferro Manganese	1.18	0.75	81.95	0.163	0.0018								50	
NCS HC 25619b	Medium Carbon Ferro Manganese	1.2	0.75	81.74	0.163	0.0018								50	
NCS HC 25620	Medium Carbon Ferro Manganese	1.50	0.94	80.48	0.153	0.0030								50	
NCS HC 25621	Medium Carbon Ferro Manganese	1.40	1.51	79.44	0.344	0.0029								50	
NCS HC 25627	Ferro Silicon	0.081	76.74	0.172	0.023	0.004	0.140			1.80			0.30	50	
NCS HC 25629	Low Carbon Ferro Manganese	0.300	0.63	84.28	0.196	0.0018								50	
NCS HC 25629a	Low Carbon Ferro Manganese	0.31	1.06	81.68	0.196	0.0022								50	
NCS HC 25629b	Low Carbon Ferro Manganese	0.560	0.96	80.79	0.169	0.0024								50	
			Co	Ni	V	Fe	Sn	As	Mo						
NCS HC 25602a	Ferromolybdenum								62.19						
NCS HC 25603b	High Carbon Ferro Chrome	0.044	0.39	0.138	24.90										
NCS HC 25605c	Si-Mn Alloy	0.020	0.013	0.040	10.01										
NCS HC 25606a	Ferro Tungsten					0.041	0.041								
Number	Name	Chemical Composition(Percent)								Unit Size (in g)					
		Cr	Si	P	C	S	Mn	V	Ni						
NCS HC 25635a	Low Carbon Ferrochromium	63.44	1.07	0.035	0.218	0.0033	0.44	0.093					50		
NCS HC 25636b	Low Carbon Ferro Chrome	67.76	0.28	0.026	0.048	0.0044	0.298		0.331				50		
NCS HC 25651a	Medium Carbon Ferrochromium	61.07	1.25	0.028	0.81	0.0028	0.83	0.11					50		

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Cr	Si	Mn	P	C	S	Al	Ca	Cu	Ni	B	Ti	N	
NCS HC 25632	High Carbon Ferro Manganese		0.69	78.41	0.204	6.68	0.0086								50
NCS HC 25633	Silicon chrome Alloy	33.90	44.06	0.29	0.013	0.045	0.002	1.00							50
NCS HC 25635a	Low Carbon Ferro Chrome	63.44	1.07	0.44	0.035	0.218	0.0033								50
NCS HC 25636a	Extra Low Carbon Ferro Chrome	62.81	0.32	0.39	0.028	0.028	0.028			0.032	0.34				50
NCS HC 25640	Si-Mn alloy	66.85	24.74	65.85	0.104	0.181	0.010				0.30				50
NCS HC 25640a	Si-Mn Alloy		24.47	65.50	0.117	0.197	0.0079								50
NCS HC 25641	Silicox Manganese		27.88	60.29	0.078	0.082	0.0069				0.30	0.021	0.11		50
NCS HC 25642	Nitrided Ferro Manganese		1.70	71.02	0.183	1.11	0.0065								1.92
NCS HC 25643	Silicon chrome	32.62	19.17	0.129	0.0083	0.018	0.0025	1.24							50
NCS HC 25644	High nitrogen Fe-Cr	62.57	0.75		0.024	0.0064	0.029								8.69
NCS HC 25646	Si-Mn alloy		32.90	59.34	0.043	0.018	0.0034					0.048	0.24		50
NCS HC 25647	Low carbon Fe-Si	0.010	77.42	0.074	0.012	0.0068	0.003	0.011	0.003				0.043		50
NCS HC 25648	Silicon				0.0065			0.026	0.055				0.023		50
NCS HC 25649	Silicon				0.0067			0.032	0.06				0.026		50
NCS HC 25650	Ferro niobium				0.085	0.074	0.028	0.89		0.023			0.49		50
NCS HC 25651	Medium carbon Fe-Cr	63.31	2.04	0.47	0.023	2.55	0.047								50
NCS HC 25652	Nitride Fe-Si		51.85		0.014	0.35	0.003						0.052	28.15	50
NCS HC 25653	High carbon Fe-Cr	62.49	0.15	0.11	0.025	8.70	0.024						0.016		50
NCS HC 25654	Silicon manganese		19.26	65.29	0.109	0.876	0.0122					0.022	0.19		50
NCS HC 25655	Manganese		0.28	97.43	0.018	0.080	0.016								50
NCS HC 25656	Ferro nickel	3.63	1.04		0.039	3.06	0.246				12.16				50
NCS HC 25657	Si-Mn alloy		25.03	67.96	0.065	0.58	0.011						0.18		50
NCS HC 25658	Ferro boron		1.68		0.017	0.022	0.016	0.99				20.58			50
			Co	V	Fe										
NCS HC 25635a	Low Carbon Ferro Chrome			0.093											
NCS HC 25636a	Extra Low Carbon Ferro Chrome	0.16		0.098		35.56									
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Cr	Si	Mn	P	C	S	Al*	Mo	Cu	Ni	V	Ti	Zn*	
NCS HC 26607b	High Carbon Ferrochrome	65.86	2.18	0.38	0.017	7.23	0.020				0.29		0.15		50
NCS HC 26608b	Ferro Vanadium	0.70	0.84	1.64	0.051	0.22	0.0044	0.002				50.57		0.0024	50
NCS HC 26608c	Ferro Vanadium	0.71	0.81	2.00	0.043	0.17	0.0040	0.0025				53.78		0.004	50
NCS HC 26610a	Ferro Molybdenum		0.10		0.044	0.021	0.077		64.84	0.33					50
NCS HC 26610b	Ferro Molybdenum		1.54		0.036	0.042	0.059		61.85	0.29					50
NCS HC 26611b	Silicon Manganese Alloy		18.24	67.44	0.080	1.24	0.009								50
NCS HC 26612a	Vanadium Pentoxide		0.080		0.022										25
NCS HC 26620	Silicon Manganese Alloy		19.15	54.97	0.060	0.40	0.011						0.24		50
NCS HC 26621	Silicon Manganese Alloy		27.49	61.49	0.072	0.039	0.009						0.24		50
			Pb	Sn	Sb	As	W	V ₂ O ₅	S*	K ₂ O	Na ₂ O	As*	Fe	Al	Mo*
NCS HC 26610a	Ferro Molybdenum	(0.002)	(0.002)	(0.01)	0.015	0.011									
NCS HC 26610b	Ferro Molybdenum		(0.008)	(0.002)	0.008	0.060									
NCS HC 26612a	Vanadium Pentoxide							98.99	0.001	0.12	0.58	0.0008	0.078	0.015	0.0009
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		Si	Mn	Al	Cr	P	Ca	C	S	Ti	Ni	Mo*			
NCS HC 25627a	Ferrosilicon	74.58	0.179	0.74	0.48	0.023	0.056	0.075	0.0038						50
NCS HC 26607c	High-Carbon Ferro Chromium	0.2	0.19		69.53	0.011		8.28	0.024	0.039	0.25				50
NCS HC 26621a	Silicon Manganese Alloy	23.02	63.94	0.003		0.06		0.29	0.01	0.34		0.0008			50

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Cu	Al	Ti	Fe	V	Mo	As				
NCS HC 26612	Ferro Vanadium		0.17		0.027	0.014								0.16			0.016	25
NCS HC 26613	Ferro Titanium	0.019	1.84	1.11	0.020	0.013		0.005		30.24			0.20					50
NCS HC 26615	Nitride manganese		0.0086	91.56		0.031		0.0071					0.038					50
		V ₂ O ₅	K ₂ O	Na ₂ O	Alt	Als												
NCS HC 26612	Ferro Vanadium	98.09	0.15	1.11														
NCS HC 26613	Ferro Titanium				8.16	8.10												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)			
		Cr ₂ O ₃	SiO ₂	Fe ₂ O ₃	Cr _s	T.C	T.S	As	ZrO ₂	Al ₂ O ₃	CaO	MgO	TiO ₂					
NCS HC 26617	Chrome oxide	96.19	0.26	0.054	1.34	0.006	0.002	(0.0001)										20
NCS HC 26618	Zirconium dioxide		0.11	0.054					99.48	0.009	0.17	0.093					20	
NCS HC 26619	Titanium dioxide			0.006	1.34	0.011	0.006				0.65			98.21			20	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)			
		Si	Mn	Ti	Fe	Ca	Mg	RE	Ce	La	P	C	S	Cr				
NCS HC 28609	R _e -Mg Alloy	43.90	0.70	0.54	(31.67)	1.01	10.20	8.66										80
NCS HC 28610	R _e -Mg Alloy	42.05	0.46	0.275	(43.4)	0.76	5.52	3.71	(1.86)	(0.88)								80
NCS HC 28611	R _e -Mg Alloy	43.22	0.55	0.362	(40.7)	0.84	5.70	5.10										80
NCS HC 28612	R _e -Mg Alloy	43.44	0.63	0.435	(36.43)	0.90	8.25	6.42										80
NCS HC 28615	Rare-earth Ferro Silicon	41.02	0.390	0.235		5.60		20.00										100
NCS HC 28616	Silicon Manganese Alloy	14.33	62.530	0.222	20.000						0.205	2.28	0.020	0.060			50	
NCS HC 28617	Silicon Manganese Alloy	17.590	64.970	0.221	15.160						0.127	1.570	0.018	0.055			50	
NCS HC 28618	Silicon Manganese Alloy	19.340	67.400	0.255	11.650						0.107	1.050	0.017	0.045			50	
NCS HC 28619	High-Carbon Ferro Chromium	4.250	0.300	0.412	30.220						0.023	7.280	0.024	56.760			50	
NCS HC 28620	High-Carbon Ferro Chromium	3.950	0.382	0.423	31.410						0.022	7.600	0.031	55.770			50	
NCS HC 28621	High-Carbon Ferro Chromium	1.450	0.307	0.166	27.090						0.026	7.780	0.033	62.540			50	
NCS HC 28622	High-Carbon Ferro Chromium	2.430	0.340	0.261	28.65						0.025	7.720	0.033	60.000			50	
NCS HC 28624	Ferro Molybdenum	0.367	0.039		37.220						0.044	0.019	0.078	0.052			50	
NCS HC 28625	HighCarbon Ferro Manganese	0.525	65.98	0.081	26.420		0.0006				0.805	6.140	0.0034	0.014			50	
NCS HC 28626	HighCarbon Ferro Manganese	0.073	66.44	0.0035	26.620		0.0054				0.268	6.260	0.0014	0.032			50	
NCS HC 28627	HighCarbon Ferro Manganese	0.208	66.27	0.027	26.600		0.004				0.428	6.230	0.0023	0.026			50	
NCS HC 28628	Medium Carbon Ferromanganese	1.840	76.55	0.0065	17.860		0.0036				0.265	1.840	0.017	0.124			50	
NCS HC 28629	Low Carbon Ferromanganese	0.475	82.61		16.470		0.0012				0.080	0.296	0.0022	0.033			50	
NCS HC 28631	Ferroboron	0.180	0.310	0.017							0.025	0.400	0.0023	0.025			50	
NCS HC 28632	Ferroboron	0.650	0.575	0.030							0.027	0.190	0.002	0.260			50	
NCS HC 28633	Ferrovanadium	0.682	0.663				0.022				0.056	0.285	0.0044	0.110			50	
NCS HC 28634	Ferrovanadium	1.890	0.365				0.115				0.093	0.475	0.014	0.289			50	
NCS HC 28635	SiCaAl	43.60	0.095		17.53		15.18				0.051	1.000	0.040	0.054			50	
NCS HC 28636	SiBaAl	50.36	0.110		16.68		1.44				0.016	0.34	0.038	0.083			50	
NCS HC 28637	SiCaBaAl	52.76	0.150		10.54		11.10				0.024	0.63	0.073	0.031			50	
NCS HC 28638	Ferro Titanium	4.51	0.362	27.34							0.015	0.033	0.0048	0.055			50	

Section 3 Ferroalloy(Powder)

		Chemical Composition(Percent)													
		Ni	Cu	V	Co	As	Sb	Pb	W	Mo	Sn	Zn	Al	B	
NCS HC 28616	Silicon Manganese Alloy	0.167	0.080	0.095	0.048	0.015	0.003	0.001							
NCS HC 28617	Silicon Manganese Alloy	0.092	0.096	0.060	0.035	0.010	0.001	0.001							
NCS HC 28618	Silicon Manganese Alloy	0.036	0.051	0.063	0.017	0.0099	0.0004	0.0001							
NCS HC 28619	High-Carbon Ferro Chromium			0.203											
NCS HC 28620	High-Carbon Ferro Chromium			0.175											
NCS HC 28621	High-Carbon Ferro Chromium			0.138											
NCS HC 28622	High-Carbon Ferro Chromium			0.153											
NCS HC 28624	Ferro Molybdenum	0.144	1.070			0.0078	0.0059	0.0022	0.047	61.00	0.0026				
NCS HC 28625	High Carbon Ferro Manganese	0.032	0.065	0.055		0.0047		0.0092				0.0082			
NCS HC 28626	High Carbon Ferro Manganese	0.109	0.072	0.133		0.0015		0.106				0.026			
NCS HC 28627	High Carbon Ferro Manganese	0.087	0.070	0.110		0.055		0.077				0.022			
NCS HC 28628	Medium Carbon Ferromanganese	0.132	0.152	0.100		0.055		1.300				0.0017			
NCS HC 28629	Low Carbon Ferromanganese	0.0032	0.127	0.041		0.017		0.126				0.011			
NCS HC 28631	Ferroboron	0.013	0.015	0.009									0.036	18.92	
NCS HC 28632	Ferroboron	0.056	0.050	0.010									0.185	19.33	
NCS HC 28633	Ferrovanadium	0.011	0.054	54.02		0.0017		0.0001					0.0026		
NCS HC 28634	Ferrovanadium	0.067	0.064	47.32		0.024		0.0004					0.0061		
NCS HC 28635	SiCaAl	0.026	0.046										16.63		
NCS HC 28636	SiBaAl	0.021	0.032										4.07		
NCS HC 28637	SiCaBaAl	0.007	0.017										5.42		
NCS HC 28638	Ferro Titanium			0.15									7.82		
		Ba	Sr	V ₂ O ₅	K ₂ O	Na ₂ O	N	O*							
NCS HC 28635	SiCaAl	1.640	0.022												
NCS HC 28636	SiBaAl	24.260	0.095												
NCS HC 28637	SiCaBaAl	15.330	0.042												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	N	V	Si	Mn	P	S	Cr	Fe	Ca	Al	As	O*	
NCS HC 28639	Vanadium Nitrogen Alloy	9.22	9.44	77.58	0.4	0.0091	0.147	0.0025	0.0032	1.95	0.066	0.24	0.0074	0.5	25
NCS HC 28640	Vanadium Nitrogen Alloy	6.01	13.31	76.73	0.4	0.0045	0.142	0.0019	0.019	1.76	0.1	0.28	0.012	0.7	25
NCS HC 28641	Vanadium Nitrogen Alloy	5.71	14.13	78.04	0.26	0.0065	0.012	0.0013	0.082	0.65	0.064	0.26	0.0014	0.6	25
NCS HC 28642	Vanadium Nitrogen Alloy	3.39	16.64	77.73	0.23	0.005	0.01	0.0016	0.082	0.57	0.044	0.24	0.0012	0.6	25
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		V ₂ O ₅	Si	P	Fe	K ₂ O	Na ₂ O	S	As						
NCS HC 28643	Vanadium Pentoxide	98.44	0.054	0.0056	0.23	0.14	0.81	0.011	0.0013			25			
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Mo	C	Si	Mn	P	S	Cr	Ni	Cu	W	Sn	As	Sb	
NCS HC 28644	Ferro Molybdenum	59.36	0.017	0.11	0.004	0.037	0.127	0.0072	0.016	0.133	0.144	0.04	0.116	0.017	50
NCS HC 28645	Ferro Molybdenum	57.44	0.014	0.033	0.003	0.047	0.11	0.0065	0.017	0.167	0.164	0.049	0.152	0.013	50
		Pb	Fe												
NCS HC 28644	Ferro Molybdenum	0.0015	39.87												
NCS HC 28645	Ferro Molybdenum	0.0017	41.78												
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		Si	Ca	P	Al	C	S	O	Fe*	Cr	Mn	Ni			
NCS HC35610	Si-Ca Alloy	61.36	31.28	0.022	1.22	0.31	0.025	0.88	3.68					50	
NCS HC35611	Si-Ca Alloy	64.82	27.98	0.021	1.13	0.23	0.011	0.78	4.18					50	
NCS HC37622	Middle-Carbon Ferro Chromium	0.642		0.016		2.74	0.031			63.75	0.119	0.217		50	

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		Mn	Si	P	C	S	N	Cr	V ₂ O ₅	Fe	Na ₂ O	K ₂ O			
NCS HC 35601	Medium Carbon Ferromanganese	77.7	0.91	0.169	1.81	0.0022									50
NCS HC 35602	Medium Carbon Ferromanganese	79.4	1.26	0.159	1.36	0.0022									50
NCS HC 35603	Medium Carbon Ferromanganese	83.92	1.08	0.153	0.61	0.0024									50
NCS HC 35604	Silicon Manganese Alloy	62.42	27.2	0.07	0.076	0.0096									50
NCS HC 35605	Silicon Manganese Alloy	66.93	18.7	0.142	1.13	0.014									50
NCS HC 35606	Nitrided Ferro Manganese	75.78	1.25	0.147	0.8	0.0082	5.63								50
NCS HC 35607	High-Carbon FerroChromium	0.22	1.18	0.037	8.12	0.022				56.54					50
NCS HC 35608	Vanadium Pentoxide		0.18	0.03						98.05	0.12	0.42	0.17		50
NCS HC 35609	Ferro Nickel	0.16	2.3	0.054	2.58	0.288				2.25					50
		As	S*	Cu	Co	Ni									
NCS HC 35608	Vanadium Pentoxide	0.0011	0.0009												
NCS HC35609	Ferro Nickel			0.023	0.29	10.01									
Number	Name	Chemical Composition(Percent)							Unit Size (in g)						
		Si	Mn	P	Cr	Al	Fe	Ca							
NCS HC 37601	Ferro Silicon	68.91	0.177	0.024	0.142	2.18	26.88		80						
NCS HC 37602	Ferro Silicon	73.29	0.140	0.022		2.74	21.37	0.616	80						
Number	Name	Chemical Composition(Percent)						Unit Size (in g)							
		Ca	Si	Mn	Ti	Fe	RE		Mg						
NCS HC 39601	R ₂ -Mg Alloy	3.21	40.31	2.72	1.50	20.81	20.09	9.50	75						
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Mn	P	S	Cr	Ni	Cu	V	Co		Sn		
NCS HC 41601	Ferro Manganese	0.86	0.948	83.35	0.180	0.003	0.335	0.080	0.107	0.03	0.145	0.0019		150	
		As	Sb	Pb	N	Zn	Fe	Bi							
NCS HC 41601	Ferro Manganese	0.048	0.015	0.068	0.018	0.12	13.48	0.00005							
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	P	S	Cu	Mo	Mn	Ti	Cr	B	V	Al		
NCS HC 37603	Ferro Molybdenum	0.054	0.30	0.046	0.071	0.126	61.41							50	
NCS HC 37604	Ferro Molybdenum	0.044	0.71	0.046	0.069	0.117	57.65							50	
NCS HC 37605	Si-Mn Alloy	1.55	17.67	0.14	0.024			65.64						50	
NCS HC 37606b	Silicon Manganese Alloy	2.26	13.87	0.42	0.040			60.13	0.25					50	
NCS HC 37607	Low carbon ferro Chrome	0.086	1.39	0.034	0.005			0.35		64.32				40	
NCS HC 37608	Low carbon ferro Chrome	0.243	0.99	0.039	0.019			0.34		64.06				40	
NCS HC 37609	High carbon ferro Chrome	8.49	2.15	0.024	0.015			0.20	0.24	61.54				50	
NCS HC 37611	High Carbon Ferro manganese	6.57	0.64	0.382	0.009			65.75						50	
NCS HC 37612	Silicon Manganese Alloy	1.1	18.96	0.178	0.016			67.02	0.276					50	
NCS HC 37614	Ferro Manganese	0.939	1.71	0.130				81.11			0.075			100	
NCS HC 37615	High Carbon Ferrochrome	8.78	0.78	0.023	0.025				0.097	63.50				50	
NCS HC 37616	Ferro Vanadium	0.081	0.50	0.016	0.012			0.58			49.72	5.18		50	
NCS HC 37617	High Carbon Ferrochrome	8.32	1.91	0.021	0.040					59.35				50	
NCS HC 37618	High Carbon Ferrochrome	8.44	0.30	0.026	0.026					69.12				50	
NCS HC 37619	Carbon Chromium Alloy	12.53	0.22		0.008					83.83				50	
NCS HC 37620	Si-Ca Alloy	0.68	60.09	0.017	0.033									50	
NCS HC 37621	Si-Ca Alloy	0.71	60.19	0.031	0.020									50	
		Ca	Als												
NCS HC 37620	Si-Ca Alloy		30.70	1.09											
NCS HC 37621	Si-Ca Alloy		25.25	1.55											
Number	Name	Chemical Composition(%)											Unit Size (in g)		
		C	S	Si	Mn	P	Cr	Ni	Cu	Al	Fe	Ca		Ti	
NCS HC 93616	Ferrosilicon	0.208	0.0033	73.61	0.237	0.023	0.022	0.0069	0.019	2.14	21.06	2.05	0.121	50	
NCS HC 93617	Ferrosilicon	0.220	0.0039	76.34	0.237	0.025	0.027	0.0056	0.015	1.75	19.43	1.31	0.119	50	

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		C	S	Si	Mn	P	Cr	Al	Ca	Fe	Cu	Ni	Ti	
NCS HC 93601	Ferrosilicon	0.148	0.0026	75.46	0.588	0.021	0.044	1.4	1.15	20.23	0.019	0.0093	0.097	50
NCS HC 93602	Ferrosilicon	0.196	0.0052	74.8	11.09	0.024	0.052	1.28	0.986	20.96	0.013	0.0071	0.106	50
NCS HC 93603	Ferrosilicon	0.095	0.0023	76.53	0.281	0.019	0.043	1.52	1.373	19.07	0.025	0.012	0.085	50
NCS HC 93604	Micro Carbon Ferrochrome	0.038	0.015	0.466	0.103	0.022	68.13					0.26	0.016	50
NCS HC 93605	High Carbon Ferrochromium	8	0.037	2.94	0.308	0.037	59.71					0.312	0.41	50
NCS HC 93606	Ferro Molybdenum	0.073	0.044	0.19		0.037					0.494			50
NCS HC 93607	Ferro Niobium	0.101	0.013	1.04		0.194		1.5			0.038		0.585	50
NCS HC 93608	Ferro Titanium	0.095	0.015	0.3	0.255	0.014		3			0.281		32.22	50
NCS HC 93609	High Carbon Ferrochromium	8.36	0.068	1.15	0.207	0.023	58.28							50
NCS HC 93610	High Carbon Ferrochromium	7.99	0.03	0.26	0.225	0.018	70.15							50
NCS HC 93611	High Carbon Ferrochromium	8.13	0.059	0.92	0.21	0.022	60.42							50
NCS HC 93612	Si-Ca Alloy	2.44	0.1325	5.31		0.019		1.88	28.25	6.08				50
NCS HC 93613	Si-Ca Alloy	1.30	0.088	56.2		0.018		1.77	31.67	5.58				50
NCS HC 93622	Ferro Phosphorus	0.228	0.017	0.156	0.70	27.50	0.226						0.53	50
NCS HC 93623	Ferroboron	0.45	0.0044	0.44		0.025		0.083					0.019	50
NCS HC 93624	Silicon Manganese Alloy	1.79	0.024	16.87	64.86	0.120								50
NCS HC 93625	Silicon Manganese Alloy	1.66	0.026	17.19	65.74	0.151								50
NCS HC 93626	Silicon Manganese Alloy	1.91	0.020	16.42	63.80	0.097								50
NCS HC 93627	Si-Ca Alloy	1.02	0.045	57.43		0.030		1.76	28.02	6.94				50
NCS HC 93628	Ferro Vanadium	0.130	0.016	0.730	0.474	0.042		6.10						30
NCS HC 93628a	Ferro Vanadium	0.152	0.017	0.730	0.475	0.043		6.03						30
NCS HC 93629	Ferro Vanadium	0.032	0.014	0.86	0.046	0.036		1.33						25
NCS HC 93630	Vanadium Nitride Alloy	3.96	0.0014	0.061	0.082	0.0075		0.164						25
NCS HC 93631	Si-Ca-Ba-Al Alloy	0.78	0.044	37.19	0.43	0.032		13.46	5.16	27.56				50
NCS HC 93632	Si-Ba Alloy	0.99	0.13	47.56	0.16	0.024		2.78		11.75				50
NCS HC 93633	Si-Al Alloy	0.45	0.022	28.31	0.426	0.023		29.67		37.44				50
NCS HC 93634	Si-Ba-Ca Alloy	0.64	0.204	52.62	0.104	0.022		1.82	14.08	12.97				50
NCS HC 93635	SiAlFe	1.90	0.015	27.36	0.18	0.072		38.51		26.23				50
NCS HC 93636	SiAlFe	0.11	0.0071	26.11	1.70	0.021		36.22						50
NCS HC 93637	Silicon Manganese Alloy	1.80	0.023	17.54	65.70	0.023								100
NCS HC 93638	Ferrosilicon	0.9	0.037	65.74	0.182	0.025	0.099	1.27	3.15	18.67	0.054	0.029	0.131	50
NCS HC 93639	Ferrosilicon	0.73	0.01	41.29	0.256	0.03	0.11	2.4	0.28	52.26	0.132	0.056	0.209	50
NCS HC 93640	Ferrosilicon	1.12	0.055	63.21	0.15	0.022	0.088	1.33	4.4	16.85	0.069	0.024	0.125	50
NCS HC 93641	Ferrosilicon	0.44	0.013	71.2	0.242	0.028	0.089	1.21	1.26	22.07	0.033	0.035	0.137	50
NCS HC 93642	Ferrosilicon	0.56	0.013	73.39	0.216	0.032	0.084	1.12	1.14	18.96	0.032	0.046	0.135	50
NCS HC 93643	Nitrided Ferro Silicon	0.52	0.019	49.67		0.018		0.72	0.45	15.08			0.071	50
		Mo	Sb	Nb	Ta	B	V	N	Ba	Mg	Sr	Si ₃ N ₄		
NCS HC 93606	Ferro Molybdenum	56.12	0.036											
NCS HC 93607	Ferro Niobium			64.6	0.097									
NCS HC 93623	Ferroboron					18.69								
NCS HC 93628	Ferro Vanadium						50.24							
NCS HC 93628a	Ferro Vanadium						50.09							
NCS HC 93629	Ferro Vanadium						80.90							
NCS HC 93630	Vanadium Nitride Alloy						77.73	14.57						
NCS HC 93631	Si-Ca-Ba-Al Alloy								10.00	0.098				
NCS HC 93632	Si-Ba Alloy								27.54					
NCS HC 93634	Si-Ba-Ca Alloy								14.14	0.051	0.063			
NCS HC 93643	Nitrided Ferro Silicon											29.65		
Number	Name	Chemical Composition(%)												Unit Size (in g)
NCS HC 93614	SiAlFe	33.75	31.91	27.84										50
NCS HC 93615	SiAlFe	29.87	34.80	30.47										50

Section 3 Ferroalloy(Powder)

Number	Name	Chemical Composition(Percent)											Unit Size (in g)	
		C	Si	Mn	P	S	Cr	Al	Ca	Mo	As	Cu		
NCS HC93644	High-Carbon Ferro Chromium	8.15	2.65	0.267	0.023	0.023	55.31							50
NCS HC93645	High-Carbon Ferro Manganese	6.24	0.68	64.42	0.209	0.014								50
NCS HC93646	Middle-Carbon Ferro Manganese	1.79	1.75	76.82	0.207	0.014								50
NCS HC93647	Mn-Si Alloy	1.65	17.3	66.65	0.135	0.015								50
NCS HC93648	Ferrosilicon	0.083	72.31		0.019	0.0021	0.165	1.37	1.28					50
NCS HC93649	Ferro Molybdenum	0.066	0.12		0.026	0.137				54.37	0.12	0.309		50

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	MnO	FeO	P	S	Cu	K ₂ O	Na ₂ O	MgO	CaO	Pb	
NCS DC 11001	Magnetite	44.73	18.22	0.75	0.20	12.91	0.013	1.50							60
NCS DC 11013	Iron ore	34.07	48.27	0.74	0.093	20.15	0.054	0.118	0.0031	0.165	0.065	4.18	7.14	0.028	70
NCS DC 11017	Iron ore	63.33	5.56	1.13	0.086	1.76	0.011	0.003	0.0045	0.115	0.07	1.3	1.05	0.0006	70
NCS DC 11018	Iron ore	56.02	4.5	2.20	0.355	7.78	56.02	0.023	0.0044	0.038	0.057	2.87	9.89	0.0031	70
			Zn	TiO ₂	As										
NCS DC 11013	Iron ore	0.0045	0.043	0.0003											
NCS DC 11017	Iron ore	0.0059		0.0006											
NCS DC 11018	Iron ore	0.065		0.0014											
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	P	S	FeO	Cu	C	Fe ₂ O ₃	L.O.I		
NCS DC 11003a	Dolomite		0.098	0.083	31.49	21.06	0.0016	0.011				0.024	46.71		70
NCS DC 11004a	Iron ore	54.86	8.27	2.85	0.63	0.524	0.119	0.258	1.17	0.068	0.31				60
NCS DC 11005a	Iron ore	63.34	3.36	0.52	0.12	0.146	0.016	0.107	0.07#	0.034	0.119				60
NCS DC 11006a	Iron ore	54.74	8.53	1.48	1.02	0.657	0.036	0.439	3.9	0.102	0.227				60
NCS DC 11007a	Iron ore	52.24	10.2	6.84	0.561	0.606	0.346	0.094	4.21	0.015	0.549				60
NCS DC 11008a	Iron ore	57.54	7.08	2.14	1.25	0.75	0.073	0.442	8.42	0.095	0.204				60
NCS DC 11009a	Iron ore	61.96	4.92	0.914	0.375	0.364	0.027	0.212	15.13	0.063	0.128				60
			Pb	Zn	Na ₂ O	K ₂ O	MnO	As	TiO ₂	BaO	Co	Ti	Sr		
NCS DC 11003a	Dolomite				0.017	0.0030	0.061					0.0043	0.021		
NCS DC 11004a	Iron ore	0.101	0.144	0.047	0.26	1.04	0.096	0.12	0.86*	0.0054					
NCS DC 11005a	Iron ore	0.035	0.026	0.02	0.07	0.84	0.0044	0.034	0.62*	0.0031					
NCS DC 11006a	Iron ore	0.182	0.3	0.048	0.214	1.31	0.215	0.154	1.08*	0.0086					
NCS DC 11007a	Iron ore	0.034	0.066	0.093	0.61	0.194	0.051	0.237	0.028*	0.0043					
NCS DC 11008a	Iron ore	0.192	0.362	0.042	0.24	0.623	0.291	0.199	0.42*	0.011					
NCS DC 11009a	Iron ore	0.042	0.054	0.024	0.093	0.947	0.011	0.447	0.71*	0.0061					
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TMn	MnO ₂	TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	TiO ₂	K ₂ O	Na ₂ O	Cr	FeO		
NCS DC 11019	Manganese ore	18.36	25.59	8.89	21.94	5.66	2.83	0.611	0.206	1.04	0.045	0.012		60	
NCS DC 11020	Manganese ore	22.31	30.34	9.66	28.11	7.69	2.36	1.72	0.27	1.11	0.056	0.026		60	
NCS DC 11021	Manganese ore	26.53	36.6	11.01	22.1	6.99	2.31	0.774	0.247	1.01	0.064	0.019		60	
NCS DC 11022	Manganese ore	29.48	41.76	10.22	19.84	6.49	1.82	0.65	0.224	0.89	0.062	0.018		60	
NCS DC 11023	Manganese ore	35.54	52.73	10.25	13.03	3.8	2.34	0.78	0.143	0.396	0.053	0.0053		60	
NCS DC 11024	Sintered Ore			55.37	5.64	2.19	10.76	2.14		0.082	0.045		(8.20)	70	
NCS DC 11025	Pellet Ore			61.37	6.59	1.35	1.04	0.80		0.111	0.105		(1.92)	70	
			Ni	Cu	V	P	Pb	As	Zn	BaO	S	MnO	TiO ₂		
NCS DC 11019	Manganese ore	0.049	0.014	0.014	0.202	0.08	0.031	0.118	0.43	0.114					
NCS DC 11020	Manganese ore	0.089	0.021	0.02	0.171	0.12	0.034	0.1	0.54	0.109					
NCS DC 11021	Manganese ore	0.073	0.021	0.02	0.163	0.124	0.052	0.164	0.8	0.084					
NCS DC 11022	Manganese ore	0.072	0.018	0.02	0.15	0.107	0.062	0.143	1.04	0.082					
NCS DC 11023	Manganese ore	0.023	0.011	0.016	0.105	0.058	0.112	0.066	1.62	0.052					
NCS DC 11024	Sintered Ore				0.056				0.0062		0.017	0.36	0.125		
NCS DC 11025	Pellet Ore				0.093				0.012		0.021	0.120	1.61		
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	MnO	Al ₂ O ₃	CaO	MgO	K ₂ O	Na ₂ O	TiO ₂	P	Cu	As	S	
NCS DC11012a	Iron Ore	62.86	2.62	1.16	0.85	2.17	2.41	0.057	0.016	0.188	0.0019	0.0085	0.026	0.57	60
NCS DC11033	Limonite	51.13	10.43	0.222	3.73	0.085	0.11	0.21	0.013	0.229	0.067	0.219	0.074	0.67	60
NCS DC11034	Serpentine		40.07	0.122	0.97	2.37	39.52			0.096				0.024	35
			Zn	Bi	Sn	Pb	FeO	C	P ₂ O ₅	Cr ₂ O ₃	TFe(Fe ₂ O ₃)	L.O.I			
NCS DC11012a	Iron Ore	0.149	0.0012	0.113	0.0024	27.22									
NCS DC11033	Limonite	0.283	0.023	0.0023	0.116	(0.46)									
NCS DC11034	Serpentine							0.65	0.024	0.422	7.86	8.83			

Section 4 Mineral & Geology(Powder)

Number	Name	$(\times 10^{-2})$												Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	P	S	K ₂ O	Na ₂ O	MnO	TiO ₂	V ₂ O ₅	
NCS DC11014a	Iron ore concentrate	66.67	6.08	0.32	0.097	0.046	0.017	0.0083	0.016	0.0077	0.27	0.491	0.25	70
NCS DC11015a	Iron ore concentrate	69.47	0.64	0.323	0.67	0.222	0.094	0.22	0.011	0.0068	0.28	0.51	0.26	70
NCS DC11016a	Iron ore concentrate	67.55	3.08	0.783	0.356	0.42	0.048	0.098	0.076	0.014	0.272	0.505	0.25	70
NCS DC11024a	Sintered ore	56.64	5.04	2.12	10.3	1.21	0.088	0.02	0.059	0.074	0.311	0.195		70
NCS DC11024b	Sintered ore	55.08	5.45	1.11	9.98	3.56	0.035	0.017	0.088	0.072	0.67	0.559	0.113	70
NCS DC11025a	Pellet ore	62.4	7.7	0.839	0.651	1.17	0.017	0.0023	0.075	0.094	0.199	0.191	0.028	70
NCS DC11025b	Pellet ore	65.53	3.01	0.61	0.545	2	0.014	0.011	0.087	0.221	0.046	0.088		70
		Zn	FeO											
NCS DC11014a	Iron ore concentrate	0.027	26.3											
NCS DC11015a	Iron ore concentrate	0.029	27.41											
NCS DC11016a	Iron ore concentrate	0.028	26.57											
NCS DC11024a	Sintered ore		8.16											
NCS DC11024b	Sintered ore	0.049	10.19											
NCS DC11025a	Pellet ore	0.013	(0.97)											
NCS DC11025b	Pellet ore		(0.82)											
Number	Name	$(\times 10^{-2})$												Unit Size (in g)
		TMn	MnO ₂	TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	TiO ₂	K ₂ O	Na ₂ O	Cr	Ni	
NCS DC11026	Nickel ore			18.01	39.80	2.93	0.89	15.86	0.041	0.007	0.068	0.76	1.74	35
NCS DC11027	Mangnaese	48.93	72.89	5.07	6.16	3.20	0.10	0.12	0.15	1.32	0.19	0.0074	0.011	70
NCS DC11028	Mangnaese	42.44	62.66	7.76	9.08	5.56	0.17	0.11	0.23	1.76	0.25	0.011	0.0077	70
NCS DC11029	V Ti Magnetite			51.67	4.06	4.99	0.52	2.02	13.54	0.0081	0.023			70
NCS DC11030	V Ti Magnetite			49.12	5.52	5.1	1.16	2.3	12.8	0.023	0.073			70
NCS DC11031	V Ti Magnetite			46.74	8.19	5.49	1.18	2.6	12.24	0.021	0.057			70
NCS DC11032	Iron ore concentrate			70.69	0.293	0.32	0.066	0.045	0.535	0.012	0.01			70
		Cu	V	P	Pb	Co	Zn	BaO	S	MnO	V ₂ O ₅	FeO		
NCS DC11026	Nickel ore		0.010	(0.0021)		0.037	0.017		0.011	0.43				
NCS DC11027	Mangnaese	0.0067	0.041	0.089	0.0063	0.017	0.015	0.99	0.0084					
NCS DC11028	Mangnaese	0.0056	0.042	0.066	0.0072	0.014	0.013	0.32	0.0073					
NCS DC11029	V Ti Magnetite			0.046			0.045		0.259	0.238	0.59	27.3		
NCS DC11030	V Ti Magnetite			0.179			0.044		0.382	0.24	0.553	26.44		
NCS DC11031	V Ti Magnetite			0.101			0.041		0.21	0.226	0.539	24.39		
NCS DC11032	Iron ore concentrate			0.012			0.03				0.258	27.98		
Number	Name	$(\times 10^{-2})$												Unit Size (in g)
		P	S	Al ₂ O ₃	CaO	Fe ₂ O ₃	K ₂ O	MgO	Na ₂ O	SiO ₂	TiO ₂	MnO	L.O.I	
NCS DC11035	Limestone	0.025	0.029	1	49.13	0.55	0.299	2.76	0.014	4.39	0.043	0.055	41.5	50
NCS DC11036	Limestone	0.0044	0.012	0.55	33.92	0.41	0.178	16.76	0.013	3.14	0.028	0.05	44.7	50
NCS DC11037	Limestone	0.003	0.013	0.402	48.26	0.2	0.172	4.95	0.011	2.46	0.021	0.0096	43.28	50
NCS DC11038	Limestone	0.0034	0.014	0.33	52.83	0.197	0.137	1.64	0.012	1.66	0.016	0.0096	43.05	50
NCS DC11039	Limestone	0.0041	0.014	0.466	51.66	0.225	0.203	2.07	0.009	2.24	0.022	0.0087	42.82	50
NCS DC11040	Limestone	0.0068	0.048	0.29	51.12	0.33	0.16	3.26	0.013	1.06	0.015	0.012	43.58	50
NCS DC11041	Limestone	0.0024	0.022	0.24	52.75	0.124	0.099	2.1	0.009	1.36	0.013	0.0057	43.42	50
NCS DC11042	Limestone	0.0024	0.016	0.33	50.14	0.194	0.145	3.53	0.009	2.3	0.018	0.0098	43.17	50
NCS DC11043	Limestone	0.0059	0.036	0.363	46.26	0.36	0.167	7.03	0.013	1.67	0.017	0.022	43.99	50
Number	Name	$(\times 10^{-2})$												Unit Size (in g)
		Zn	TFe	SiO ₂	Al ₂ O ₃	MnO	FeO	P	S	TiO ₂	K ₂ O	Na ₂ O	MgO	
NCS DC 13019c	Iron Concentrate	0.0030	68.96	3.98	0.174	0.049	28.98	0.010	0.0277	0.0174	0.0068	0.0060	0.268	50
NCS DC 13033	Iron Ore		35.36	48.50	0.11	0.125	5.18	0.022	0.0064	0.007			0.20	50
NCS DC 13034	Iron Ore		58.70	14.47	0.54	0.061	26.09	0.584	0.047	0.014			0.30	50
		CaO	Pb											
NCS DC 13019c	Iron Concentrate	0.196	0.0052											
NCS DC 13033	Iron Ore	0.13												
NCS DC 13034	Iron Ore	1.77												

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	MnO	FeO	P	S	Cu	K ₂ O	Na ₂ O	MgO	CaO	Ni	
NCS DC 14001a	Iron Ore	64.88	3.48	1.59		(0.37)	0.055	0.015		0.085	0.012	0.044	0.080		50
NCS DC 14004b	Pellet Iron Ore	62.79	5.31	1.32		0.72	0.016	0.012	0.071	0.25	0.112	1.58	1.16		50
NCS DC 14007a	Hematite	61.73	9.82	0.48		1.51	0.024	0.036	0.061	0.056	0.0056	0.055	0.11	0.0023	50
NCS DC 14010a	Iron Ore	58.52	7.77	2.71		19.03	0.019	0.092	0.048	0.272	0.057	1.31	1.82		50
NCS DC 14013a	Iron Ore	55.56	8.10	1.98		22.60	0.029	1.84	0.40	0.33	0.075	2.13	3.33		50
NCS DC 14019a	Dolomite		0.021	0.017	0.032		0.0010	0.018		0.0010	0.023	20.37	32.11		50
NCS DC 14020a	Dolomite		0.25	0.11	0.020		0.0012	0.046		0.019	0.015	15.38	37.59		50
NCS DC 14022	Fluorspar		4.72				0.0025	0.029		0.019	0.005				65
NCS DC 14022a	Fluorspar	0.166	3.06				0.014	0.35		0.026	0.006				65
NCS DC 14023	Fluorspar		8.35				0.0031	0.090		0.026	0.005				65
NCS DC 14024	Fluorspar		6.84				0.0024	0.043		0.029	0.006				65
NCS DC 14024a	Fluorspar	0.22	5.44				0.0014	0.009		0.040	0.006				65
NCS DC 14025	Fluorspar		14.15				0.0013	0.045		0.044	0.005				65
NCS DC 14033	Hematite	61.68	9.82	0.48		1.43	0.024	0.036	0.061	0.055	0.006	0.054	0.11	0.0023	50
NCS DC 14043	Hematite	57.78	11.18	1.52			1.48	0.046	0.187	0.066	0.22	0.023	0.54	0.56	50
NCS DC14005C	Iron Ore	64.38	3.97	1.311	0.269	25.33	0.042	0.353	0.0005	0.134	0.018	1.33	1.052		50
		Chemical Composition(Percent)													
		Mn	Ti	L.O.I	Fe ₂ O ₃	SrO	CaF ₂	CaCO ₃	Co	TiO ₂	Pb	Zn	As	V ₂ O ₅	Cr ₂ O ₃
NCS DC 14001a	Iron Ore	0.056	0.044												
NCS DC 14004b	Pellet Iron Ore	0.13								0.113		0.042			
NCS DC 14007a	Hematite	0.027	0.041						0.0048						
NCS DC 14010a	Iron Ore	0.63								0.121	0.008	0.134			
NCS DC 14013a	Iron Ore	0.31								0.103	0.009	0.062	0.035		
NCS DC 14019a	Dolomite			46.98	0.224										
NCS DC 14020a	Dolomite			45.88	0.459										
NCS DC 14022	Fluorspar				0.096			94.91	(0.02)						
NCS DC 14022a	Fluorspar							93.68	0.30						
NCS DC 14023	Fluorspar				0.124			90.87	(0.02)						
NCS DC 14024	Fluorspar				0.124			92.57	(0.02)						
NCS DC 14024a	Fluorspar							93.28	0.62						
NCS DC 14025	Fluorspar				0.209			85.21	(0.02)						
NCS DC 14033	Hematite	0.026	0.048							0.0048					
NCS DC 14043	Hematite	0.104	0.070												
NCS DC14005C	Iron Ore									0.5	0.0005	0.03	0.0023	0.221	0.037

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		CaF ₂	SiO ₂	CaCO ₃	S	P	K ₂ O	Na ₂ O	TFe	Al ₂ O ₃	FeO	TiO ₂	MgO	CaO	
NCS DC 14047	Fluospor	65.80	31.04	0.060	0.26	0.0027	0.093	0.009	0.49						65
NCS DC 14048	Fluospor	76.79	21.10	0.34	0.11	0.0021	0.081	0.007	0.40						65
NCS DC 14049	Iron Ore		4.62		0.020	0.037	0.33	0.027	63.86	2.04	0.25	0.12	0.056	0.082	65
NCS DC 14050	Limestone		7.97		0.039	0.0033	0.021	0.015		0.36			9.45	42.62	50
			Mn	Fe ₂ O ₃	MnO	L.O.I	Ti	Sr							
NCS DC 14049	Iron Ore	0.17													
NCS DC 14050	Limestone		0.260	0.015	38.80	0.0096	0.017								
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	P	TiO ₂	S	K ₂ O	Na ₂ O	Cu	
NCS DC 14009a	Sintered Ore	55.58	20.06	9.95	2.38	3.62	5.99	0.097	0.017	0.266	0.106	0.316	0.068	0.017	50
NCS DC 14014b	Limestone			0.073	0.079	55.12	0.73	0.0058	0.0013		0.010	0.0030	0.0075		50
NCS DC 14015b	Limestone			2.06	0.74	51.41	2.31	0.013	0.0021		0.273	0.0062	0.0073		50
NCS DC 14017b	Limestone			0.85	0.61	54.11	0.79	0.0074	0.0017		0.182	0.0038	0.021		50
NCS DC 14018b	Dolomite			0.77	0.23	31.96	19.92	0.031	0.0023		0.010	0.030	0.033		70
NCS DC 14020b	Dolomite			4.21	0.92	35.73	15.28	0.022	0.0032		0.030	0.017	0.015		70
NCS DC 14028d	Magnetite Concentrate	64.37	20.96	2.95	1.10	1.17	1.30		0.013		0.371	0.036	0.017		100
			Zn	Fe ₂ O ₃	L.O.I	Ti	Sr	Mn							
NCS DC 14009a	Sintered Ore	0.011													
NCS DC 14014b	Limestone		0.341	43.53	0.0010	0.025									
NCS DC 14015b	Limestone		0.838	41.79	0.0071	0.023									
NCS DC 14017b	Limestone		0.319	42.79	0.0021	0.024									
NCS DC 14018b	Dolomite		0.269	46.24	0.011	0.0081									
NCS DC 14020b	Dolomite		0.533	42.69	0.025	0.026									
NCS DC 14028d	Magnetite Concentrate				0.294	0.147									
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	P	S	Cu	Mn	Ti	K ₂ O	Na ₂ O	
NCS DC 14202	Sintering ore	52.77	6.55	7.51	2.54	11.33	2.02	0.060	0.033	0.012	0.199	0.062	0.078	0.033	50
NCS DC 14203	Sintering ore	57.63	10.80	5.38	1.37	8.17	1.65	0.102	0.025	0.0063	0.174	0.113	0.065	0.046	50
NCS DC 14204	Sintering ore	54.62	9.26	7.94	1.49	9.29	1.74	0.039	0.024	0.014	0.193	0.092	0.046	0.019	50
NCS DC 14205	Sintering ore	53.99	9.34	6.61	2.69	10.28	2.31	0.061	0.017	0.0087	0.190	0.099	0.078	0.037	50
NCS DC 14206	Sintering ore	51.13	9.22	8.58	2.44	9.46	4.40	0.066	0.059	0.007	0.179	0.094	0.080	0.040	50
NCS DC 14208	Iron Ore	65.56	26.01	6.09	0.28	0.11	0.11	0.0155	0.0045	0.001	0.135	0.283	0.009	0.006	50
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	S	P	MnO	TiO ₂	V ₂ O ₅	K ₂ O	Na ₂ O	
NCS DC14201a	Sintered Ore	50.71	10.363	5.03	1.907	10.899	3.366	0.11	0.161	0.669	0.112	0.024	0.114	0.0963	50
NCS DC14202a	Sintered Ore	53.364	9.133	5.646	2.119	8.606	2.783	0.0373	0.0727	0.549	0.133	0.0313	0.1071	0.0326	50
NCS DC14203a	Sintered Ore	54.58	18.76	5.85	1.269	8.578	1.98	0.0269	0.0383	0.415	0.109	0.0319	0.0919	0.0265	50
NCS DC14204a	Sintered Ore	54.21	10.606	4.53	0.93	9.604	2.965	0.0443	0.0852	0.716	0.0756	0.0229	0.102	0.0973	50
NCS DC14205a	Sintered Ore	50.967	7.832	5.504	1.351	11.065	2.577	0.0371	0.0616	0.495	0.11	0.0316	0.106	0.111	50
NCS DC14206a	Sintered Ore	57.61	23.435	3.637	1.039	7.464	1.929	0.0316	0.0956	0.505	0.09	0.0259	0.083	0.0683	50
NCS DC14208a	Iron Ore	66.53	26.34	6.062	0.31	0.097	0.039	0.008	0.015	0.279	0.5	0.231	0.015	0.007	50
			Cu	Pb	As	Zn	Cr ₂ O ₃								
NCS DC14201a	Sintered Ore	0.072	0.046	0.0136	1.519	0.02									
NCS DC14202a	Sintered Ore	0.0581	0.034	0.011	1.155	0.0224									
NCS DC14203a	Sintered Ore	0.038	0.0152	0.0084	0.4296	0.0245									
NCS DC14204a	Sintered Ore	0.0716	0.0431	0.0124	1.651	0.0241									
NCS DC14205a	Sintered Ore	0.0507	0.0282	0.0102	1.016	0.0198									
NCS DC14206a	Sintered Ore	0.0436	0.0185	0.0073	0.645	0.0269									
NCS DC14208a	Iron Ore	0.001													

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	S	P	MnO	TiO ₂	V ₂ O ₅	K ₂ O	Na ₂ O	
NCS DC14217	Sintered Ore	50.53	9.867	4.84	1.12	10.811	4.03	0.0474	0.0826	0.667	0.0758	0.0225	0.106	0.0983	50
NCS DC14218	Sintered Ore	57.57	4.8	6.293	2.329	3.534	2.324	0.0261	0.0343	0.209	0.196	0.05	0.176	0.0911	50
NCS DC14219	Sintered Ore	54.63	9.305	5.03	1.284	8.322	2.845	0.0422	0.07	0.588	0.102	0.0319	0.122	0.0978	50
NCS DC14217	Sintered Ore	0.0698	0.0438	0.0137	1.483	0.0235									
NCS DC14218	Sintered Ore	0.0272	0.0113	0.0036	0.117	0.0193									
NCS DC14219	Sintered Ore	0.0647	0.0376	0.011	1.242	0.0231									
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	K ₂ O	Na ₂ O	TiO ₂	P ₂ O ₅	L.O.I				
NCS DC14220	Bauxite	26.56	63.53	1.97	0.98	1.93	0.35	0.21	2.59	0.26	1.39				50
NCS DC14221	Bauxite	10.07	83.61	1.71	0.45	0.18	0.2	0.036	3.27	0.22	0.098				50
NCS DC14222	Bauxite	6.01	87.5	1.61	0.58	0.12	0.087	0.15	3.14	0.13	0.61				50
NCS DC14223	Bauxite	6.97	88.34	1.24	0.29	0.4	0.078	0.28	1.57	0.11	0.66				50
NCS DC14224	Corundum	0.68	96	0.21	0.31	0.28	0.048	0.014	2.28	0.024	(0.04)				50
NCS DC14225	Corundum	0.061	99.04	0.043	0.029	0.012	0.002	0.45	0.024	0.016	0.29				50
NCS DC14226	Corundum	0.061	99.02	0.04	0.028	0.013	0.003	0.43	0.02	0.013	0.34				50

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	P	S	K ₂ O	Na ₂ O	TMn	TiO ₂	MnO ₂	As		
NCS DC 14209	Manganese Ore	8.83	21.83	5.57	12.70	0.60	0.199	0.115	1.04	0.046	18.26	0.20	25.41	0.031	50	
NCS DC 14210	Manganese Ore	9.66	28.05	7.47	2.46	1.67	0.171	0.100	1.11	0.061	22.09	0.26	30.28	0.034	50	
NCS DC 14211	Manganese Ore	10.96	21.85	6.91	2.30	0.74	0.163	0.084	0.99	0.059	26.25	0.24	36.87	0.051	50	
NCS DC 14212	Manganese Ore	10.16	19.80	6.48	1.87	0.65	0.149	0.079	0.86	0.058	29.40	0.22	42.13	0.059	50	
NCS DC 14213	Manganese Ore	10.28	13.04	3.77	2.47	0.75	0.104	0.053	0.40	0.056	35.71	0.14	53.06	0.107	50	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	P ₂ O ₅	MnO	K ₂ O*	Na ₂ O	TiO ₂	L.O.I				
NCS DC 14214	Magnesia	0.595	0.507	0.53	1.24	96.75	0.058	0.052	0.005	0.025	0.019	0.19			50	
NCS DC 14215	Magnesia	2.09	0.26	0.819	1.63	94.1	0.125	0.052	0.005	0.009	0.018	0.89			50	
NCS DC 14216	Magnesia	6.55	0.714	0.799	2.42	87.26	0.037	0.051	0.009	0.034	0.027	2.07			50	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)				
		TFe	SiO ₂	Al ₂ O ₃	MnO	P	S	Cu	TiO ₂	MgO	CaO					
NCS DC 15001	Iron Ore	62.52	4.88	2.66	0.061	0.056	0.0152	0.0016	0.104	0.044	0.023				100	
NCS DC 15002a	Iron Ore	55.81	13.00	1.93	0.026	0.011	0.469	0.134	0.083	0.36	1.10				50	
NCS DC 15004	Zhao-Cheng Iron Ore	47.86	27.95	1.12	0.082	0.032	0.235	0.0023	0.068	0.96	1.72				100	
NCS DC 15005	Import Iron	62.36	4.69	2.56	0.112	0.073	0.022	0.0019	0.113	0.062	0.050				100	
NCS DC 15002a	Iron Ore		K ₂ O	Na ₂ O	FeO	As	Pb	Zn								
		0.433	0.33	1.86	0.23	0.319	0.161									
NCS DC 15004	Zhao-Cheng Iron Ore	0.062	0.043	21.99												
NCS DC 15005	Import Iron	0.015	0.015	0.48												
Number	Name	Chemical Composition(Percent)												Acid insoluble	Unit Size (in g)	
		TFe	SiO ₂	Al ₂ O ₃	Mn	P	S	MgO	FeO	CaO	MnO	TMn	B ₂ O ₃			
NCS DC 16002	Iron Concentrate	71.79	0.36	0.069	0.053	0.0022	0.055	0.038	28.69							100
NCS DC 16004	Manganese ore	3.65	10.76	1.21		0.314		1.11		15.95	44.24	30.16				60
NCS DC 16005	Iron ore	52.98	4.51			0.016	1.242	11.64	26.13	0.149			5.65	4.72		100
NCS DC 16006	Limestone		3.72	0.885		0.0054	0.101	4.55		65.20	0.013					15
NCS DC 16006	Limestone		K ₂ O	Na ₂ O	Fe ₂ O ₃	L.O.I										
		0.19	0.021	0.46	25.06											
Number	Name	Chemical Composition(Percent)												Unit Size (in g)		
		TFe	SiO ₂	Al ₂ O ₃	MnO	FeO	P	S	TiO ₂	K ₂ O	Na ₂ O	MgO	CaO			
NCS DC 18011	Iron Ore	61.80	4.52	3.05	0.170	0.30	0.076	0.022	0.134			0.102	0.051			100
NCS DC 18012	Iron Ore	55.51	7.62	5.54	0.455	9.04	0.376	0.023	0.129	0.069		0.67	0.42			100
NCS DC 18014	Iron Ore	65.87	3.15	1.39	0.042	0.43	0.073	0.021	0.061	0.197		0.023				100
NCS DC 18017	Sintering ore	48.44	8.40	2.98	0.81	11.17	0.065	0.155	0.23			2.32				100
NCS DC 18018	Sintering ore	54.90	5.81	2.34	0.29	7.87	0.064	0.036	0.50			2.41				100
NCS DC 18019	Sintering ore	54.03	6.11	2.57	0.70	7.98	0.073	0.027	0.24			2.71				100
NCS DC 18020	Sintering ore	41.81	10.21	3.23	1.80	21.87	0.159	0.302	0.50			4.85				100
NCS DC 18014	Iron Ore	0.15														
NCS DC 18015	Iron Ore	9.25														
NCS DC 18017	Sintering ore	15.52	0.030	0.13	0.061											
NCS DC 18018	Sintering ore	10.36														
NCS DC 18019	Sintering ore	10.50	0.021													
NCS DC 18020	Sintering ore	18.30	0.051	0.223	0.208											

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)								Unit Size (in g)					
		TFe	SiO ₂	Al ₂ O ₃	MnO	P	TiO ₂	MgO	CaO						
NCS DC 19013	Iron Ore	42.89	22.08	4.1	1.66	0.099	0.26	0.51	0.124	50					
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		SiO ₂	Al ₂ O ₃	CaO	MgO	V ₂ O ₅	FeO	MnO	TFe	K ₂ O	Cr ₂ O ₃	P		S	Zn
NCS DC19008a	V-Ti Magnetite	28.36	11.11	10.71	11.79	0.158	13.92	0.268	18.54	0.189		0.108	0.285	100	
NCS DC 19003b	V-Ti Iron Concentrate	1.4	3.36	0.055	1.34	0.78	26.53	0.43	59.51		0.042	0.0049	0.013	0.028	70
NCS DC 19003c	V-Ti-Iron Concentrate	2.96	3.33	0.326	3.14	0.708	33.43	0.434	56.68	0.012	0.033	0.0042	0.406	100	
NCS DC 19016	V-Ti Pellet	6.43	3.07	1.08	1.88	0.51	1.01	0.199	55.23	0.123	0.34	0.037	0.0087	0.033	100
NCS DC 19017	Titanium concentrate	5.99	1.64	1.75	5.18	0.09	32.56	0.709	29.12		0.014	0.117	0.008	100	
NCS DC 19018	Titanium concentrate	11.73	4.47	3.14	6.88	0.101	29.7	0.524	27.3		0.0085	0.558	0.028	100	
NCS DC 19019	Titanium concentrate	0.578	0.53	0.028	0.32	0.137	25.05	1.55	34.56		0.054	0.0048	0.01	100	
NCS DC 19020	V-Ti sintered Ore	5.50	3.28	9.94	3.05	0.481	7.76	0.426	49.42	0.166		0.028	0.026	100	
Number	Name	Chemical Composition(Percent)								Unit Size (in g)					
		Co	Ni	TiO ₂	Na ₂ O	Co*	Cu*	Ni*	Cr*						
NCS DC19008a	V-Ti Magnetite			7.56	0.735	0.010	0.012	0.008	0.002						
NCS DC 19003b	V-Ti Iron Concentrate	0.015	0.014	10.21											
NCS DC 19003c	V-Ti-Iron Concentrate		0.025	10.25	0.036										
NCS DC 19016	V-Ti Pellet	0.01	0.021	7.69	0.173										
NCS DC 19017	Titanium concentrate			45.71											
NCS DC 19018	Titanium concentrate			33.94											
NCS DC 19019	Titanium concentrate			49.78											
NCS DC 19020	V-Ti sintered Ore			7.12	0.061										
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		TFe	SiO ₂	Al ₂ O ₃	MnO	P	S	TiO ₂	MgO	CaO	L.O.I				
NCS DC 21001	Serpentinite	5.47	41.37	3.34	0.131	0.012	0.066	0.180	34.25	2.97	8.86			50	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	P	S	MgO	CaO	Cr ₂ O ₃	Ca	Al	Fe	Mn	Ti	
NCS DC 25002	Chromite	9.71	11.71	10.97	0.0072	0.0017	20.59	0.82	36.31					100	
NCS DC 25007	Silicon used in Industry									0.34	0.24	0.39		50	
NCS DC 25008	Manganese Ores		9.51	6.81	0.091		0.077	0.071			3.21	45.47	0.087	50	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	P	S	MgO	CaO	Cr ₂ O ₃	Ca	Al	Fe	Mn	Ti	
NCS DC 25008	Manganese Ores	0.0018													
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TMn	TFe	SiO ₂	P	CaO	MgO	Al ₂ O ₃	MnO ₂	Ti	Zn	Pb	Co	Cu	
NCS DC 26701	Manganese ore	44.95	10.50	5.41	0.033	7.53	1.05	0.37	(32.31)	0.010	0.013	0.013	0.008	0.009	50
NCS DC 26702	Manganese ore	48.53	4.93	5.56	0.080	0.37	0.25	3.28	(72.64)	0.102	0.016	0.012	0.014	0.005	50
NCS DC 26703	Manganese ore	58.80	1.45	5.63	0.009	0.37	0.17	0.74	(62.07)	0.025	0.219	0.018	0.0014	0.024	50
NCS DC 26704	Manganese ore	45.2	6.03	5.55	0.127	0.103	0.097	6.88	(67.71)	0.092	0.052	(0.007)	0.096	0.033	50
NCS DC 26705	Ilmenite concentrate		31.40	1.98	0.045	0.16	0.84	0.75						40	
NCS DC 26706	Nickel Iron Ore		47.72	5.16	0.0027	0.13	2.34	4.65					0.14	25	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		Ni	C	S	TiO ₂	FeO	MnO	V ₂ O ₅	Cr ₂ O ₃	Mn	Cr				
NCS DC 26701	Manganese ore	(0.002)	1.22	0.18											
NCS DC 26702	Manganese ore	0.012	0.085	0.017											
NCS DC 26703	Manganese ore	0.0024	0.034	0.003											
NCS DC 26704	Manganese ore	0.039	0.09	0.028											
NCS DC 26705	Ilmenite concentrate		0.043	0.004	51.35	23.81	0.90	0.22	(0.07)						
NCS DC 26706	Nickel Iron Ore	1.05	0.25	0.12						0.89	2.34				

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	MnO	FeO	P	S	TiO ₂	K ₂ O	Na ₂ O	MgO	CaO	Mn	
NCS DC 28002a	Iron ore	60.37	7.40	3.54	0.236	21.03	0.043	0.016	0.751	0.090	0.102	1.23	1.49	50	
NCS DC 28003a	Iron ore	62.65	4.20	0.39	0.113	24.53	0.011	0.114	0.117	0.040	0.013	4.73	0.71	50	
NCS DC 28003b	Iron ore	63.07	3.38	0.64	1.08	23.93	0.016	0.024	0.224	0.025	0.016	4.82	0.71	50	
NCS DC 28005a	Iron ore	66.18	2.90	0.54	0.103	27.01	0.0067	0.059	0.077	0.054	0.031	2.64	0.74	50	
NCS DC 28005b	Iron ore	67.84	5.32	0.45	0.030	29.72	0.0025	0.106	0.097	0.055	0.018	0.202	0.155	50	
NCS DC 28005c	Iron ore	68.38	2.25	0.58	0.086	28.80	0.0035	0.034	0.057	0.050	0.026	1.15	0.78	50	
		As	Cu	Zn	Cr										
NCS DC 28002a	Iron ore	0.0012	0.0080	0.016	0.068										
NCS DC 28003a	Iron ore		0.0071	0.0085											
NCS DC 28003b	Iron ore			0.055											
NCS DC 28005a	Iron ore		0.0050	0.0070											
NCS DC 28005b	Iron ore			0.0020	0.0075										
NCS DC 28005c	Iron ore		0.0037	0.0055											
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		SiO ₂	Al ₂ O ₃	MnO	P	S	TiO ₂	K ₂ O	Na ₂ O	MgO	CaO	Fe ₂ O ₃	SrO	L.O.I	
NCS DC 28007a	Limestone	0.132	0.045	0.01	0.0014	0.025	0.0041	0.0076	0.0044	0.5	55.31	0.14	0.048	43.7	50
NCS DC 28008a	Limestone	1.07	0.36	0.0061	0.0032	0.004	0.022	0.125	0.006	8.96	44.42	0.3	0.023	44.32	50
NCS DC 28009a	Limestone	2.56	0.47	0.0049	0.0033	0.021	0.024	0.272	0.012	6.65	45.9	0.235	0.02	43.48	50
NCS DC 28009b	Limestone	2.92	0.473	0.004	0.0029	0.034	0.022	0.28	0.008	4.42	48.69	0.195	0.02	42.85	50
NCS DC 28010a	Limestone	3.42	0.5	0.0047	0.003	0.018	0.022	0.308	0.008	8.08	44.02	0.24	0.018	43.16	50
NCS DC 28011a	Limestone	7.62	1.9	0.02	0.016	0.012	0.097	0.47	0.0083	4.51	44.3	1.01	0.012	39.86	50
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		SiO ₂	CaO	MgO	Fe ₂ O ₃	Al ₂ O ₃	MnO	P	TiO ₂	SrO	K ₂ O	Na ₂ O	S	L.O.I	
NCS DC 28012a	Dolomite	1.48	30.94	20.92	0.26	0.23	0.011	0.014	0.008	0.007	0.085	0.012	0.003	45.58	50
NCS DC 28013a	Dolomite	2.65	31.12	19.1	0.504	0.73	0.011	0.0034	0.034	0.0064	0.13	0.034	0.007	45.49	50
NCS DC 28014a	Dolomite	2.97	31.46	18.6	0.472	0.81	0.012	0.0061	0.041	0.0058	0.29	0.021	0.019	44.94	50
NCS DC 28015a	Dolomite	4.89	33.6	15.5	0.641	1.4	0.0085	0.011	0.074	0.006	0.35	0.019	0.013	43.24	50
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	P	TiO ₂	S	K ₂ O	Na ₂ O	Cu	
NCS DC 28020a	Pellet Ore	63.07	(0.04)	5.22	1.47	1.34	0.96	0.303	0.028	0.258	0.0084	0.078	0.103	0.0089	50
NCS DC 28020b	Pellet Ore	61.81	(0.18)	6.88		1.3	1	0.31	0.032	0.251	0.0055	0.066	0.099	0.0089	50
NCS DC 28020c	Pellet Ore	60.46	0.33	6.12	0.76	0.75	5.15	0.13	0.013	0.154	0.029	0.081	0.036	0.01	50
NCS DC 28021a	Pellet Ore	57.88	6.53	7.92	2.54	3.15	3.11	0.126	0.016	0.207	0.115	0.265		0.018	50
NCS DC 28023a	Sintered Ore	53.1	7.49	6.49	2.76	11.78	2.69	0.74	0.059	0.144	0.042	0.079	0.049		50
NCS DC 28023b	Sintered Ore	53.74	8.52	7.11	3.05	9.67	3.45	0.185	0.036	0.29	0.022	0.145	0.09	0.017	50
NCS DC 28023c	Sintered Ore	53.96	8.2	5.72	1.08	13.5	3.24		0.018	0.064	0.062	0.05	0.041	0.0062	50
		Zn	V	As	Pb	Cr	C	Co	Mn						
NCS DC 28020a	Pellet Ore	0.012													
NCS DC 28020b	Pellet Ore	0.012	0.155												
NCS DC 28020c	Pellet Ore	0.012													
NCS DC 28021a	Pellet Ore	0.039		0.0012	0.0047										
NCS DC 28023a	Sintered Ore														
NCS DC 28023b	Sintered Ore	0.018		0.02	0.012	0.021									
NCS DC 28023c	Sintered Ore	0.0075	0.0058	0.0027	0.0008	0.0036	0.056	0.0033	0.073						
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	P	TiO ₂	S	K ₂ O	Na ₂ O	Cu	
NCS DC 28046a	Sintered Ore	55.49	7.93	4.85	1.84	11.66	2.83	0.289	0.045	0.109	0.04	0.045	0.034	0.0034	50
		Zn													
NCS DC 28046a	Sintered Ore	0.0078													

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	Ni	Cr	Co	TiO ₂	Mn	P	S	
NCS DC 28064	High Cr, Ni Iron ore	51.48	0.25	2.30	5.65	0.014	0.70	0.72	1.80	0.10	0.15	0.70	0.0045	0.17	50
NCS DC 28065	High Cr, Ni Iron ore	39.68	0.10	10.00	9.98	0.30	2.54	1.30	1.71	0.085	0.14	0.59	0.010	0.23	50
NCS DC 28066	High Cr, Ni Iron ore	12.97	0.33	46.34	1.40	0.41	19.98	2.00	0.58	0.037	0.024	0.23	0.0017	0.012	50
NCS DC 28067	High Cr, Ni Iron ore	51.36	0.26	3.11	4.16	0.022	1.05	0.94	2.00	0.098	0.091	0.80	0.0055	0.095	50
NCS DC 28068	High Cr, Ni Iron ore	16.83	0.10	34.93	2.06	0.16	21.32	1.74	0.81	0.064	0.043	0.40	0.0018	0.025	50
NCS DC 28069	High Cr, Ni Iron ore	34.18	0.11	18.28	2.39	0.12	12.12	1.50	1.48	0.13	0.030	0.78	0.0015	0.082	50
NCS DC 28070	High Cr, Ni Iron ore	19.43	10.20	28.78	7.10	20.02	11.58	1.07	0.81	0.055	0.24	0.50	0.024	0.35	50
NCS DC 28071	High Cr, Ni Iron ore	25.15	20.15	29.18	6.68	11.80	12.48	1.41	1.16	0.066	0.17	0.54	0.017	0.22	50
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		S	Ni	Ti	TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	Cr	Cu	Mn	Co	Zn	
NCS DC 28072	Nickel ore	2.51	5.71	0.15	23.73	21.1	3.91	6.47	1.14	0.015	0.27	0.037	0.042	4.65	50
NCS DC 28073	Nickel ore	0.024	1.17	0.024	18.57	37.41	2.9	0.82	20.75	0.95	0.0049	0.327	0.042	0.019	50
NCS DC 28074	Nickel ore	0.288	0.892	0.145	46.99	2.52	10.29	0.033	0.51	1.84	0.012	0.149	0.014	0.023	50
NCS DC 28075	Nickel ore	0.014	1.7	0.039	14.92	38.77	2	0.385	21.05	0.8	0.0025	0.294	0.043	0.019	50
NCS DC 28076	Nickel ore	0.016	1.86	0.015	15.2	34.7	1.04	0.1	25.7	0.92	0.0017	0.282	0.065	0.021	50
NCS DC 28077	Nickel ore	0.016	1.97	0.017	14.84	36	1.03	0.14	25.49	0.823	0.0016	0.263	0.06	0.021	50
NCS DC 28078	Nickel ore	0.034	2.18	0.027	14.89	39.2	1.59	0.46	21.28	0.76	0.0058	0.254	0.055	0.079	50
NCS DC 28079	Nickel ore	1.41	3.98	0.098	20.74	27.48	3.55	4.54	8.67	0.364	0.169	0.147	0.041	2.85	50
NCS DC 28080	Nickel ore	0.18	1.3	0.092	34.55	15.48	6.53	0.07	10.54	1.38	0.0071	0.192	0.033	0.022	50
Number	Name	Pb	P	Cd											Unit Size (in g)
NCS DC 28072	Nickel ore	0.04	1.61	0.047											
NCS DC 28073	Nickel ore	0.0024	<0.007	<0.0015											
NCS DC 28074	Nickel ore	0.0023	0.03	<0.0020											
NCS DC 28075	Nickel ore	0.0013	0.0043	<0.0015											
NCS DC 28076	Nickel ore	0.0016	<0.007	<0.0015											
NCS DC 28077	Nickel ore	0.0015	0.0043	<0.0015											
NCS DC 28078	Nickel ore	0.002	0.029	<0.0015											
NCS DC 28079	Nickel ore	0.03	1.08	0.028											
NCS DC 28080	Nickel ore	0.0019	0.02	<0.0025											
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	P	TiO ₂	S	K ₂ O	Na ₂ O	As	
NCS DC 28081	Iron ore	57.41	1.89	7.31	5.11	0.34	0.142	0.228	0.054	0.23	0.018	0.15	0.045	0.0014	50
NCS DC 28082	Iron ore	49.53	0.05	7.44	7.45	0.032	0.107	3.39	0.083	0.370	0.029				50
NCS DC 28082a	Iron ore	48.00	0.05	12.74	3.44	0.15	0.268	3.40	0.076	0.146	0.111				50
NCS DC 28082b	Iron ore	51.98	0.15	9.35	3.4	0.27	0.27	0.068	0.093	0.041	0.304	0.076	0.011	50	
NCS DC 28083	Iron ore	50.98	8.92	9.40	5.03		1.05	0.306	0.963	0.125	0.112			50	
NCS DC 28091	Iron ore	44.95	0.2	13.18	3.81	4.02	1.53		0.08	0.139	0.122	0.421	0.141	0.0095	50
NCS DC 28092	Iron ore	52.85	14.34	14.13	2.76	2.38	1.77		0.049	0.635	0.144	0.333	0.33	0.0033	50
NCS DC 28093	Iron ore	60.15	14.74	5.34	1.2	2.23	2.63		0.14	0.082	0.271	0.13	0.109	0.0028	50
NCS DC 28094	Iron ore	54.41	3.19	8.1	2.7	0.88	0.98		0.09	0.092	0.108	0.25	0.086	0.0089	50
NCS DC 28095	Iron ore	58.67	14.71	7.09	1.51	2.29	2.42		0.12	0.198	0.247	0.172	0.151	0.0031	50
Number	Name	Cu	Zn	Cr	C	Pb	V	Co	Mn						Unit Size (in g)
NCS DC 28081	Iron ore	0.0038	0.0027	0.032											
NCS DC 28082	Iron ore				0.071										
NCS DC 28082a	Iron ore		0.49		0.072	0.283									
NCS DC 28082b	Iron ore	0.037	0.028	0.0036	0.203	0.02	0.0073	0.0041	1.12						
NCS DC 28083	Iron ore				0.89										
NCS DC 28091	Iron ore	0.062	0.015	0.0056	1.05	0.0073	0.012	0.0052	1.54						
NCS DC 28092	Iron ore	0.014	0.034	0.027	0.474	0.0056	0.087	0.0044	0.248						
NCS DC 28093	Iron ore	0.01	0.0026	0.0013	0.46	0.0005	0.036	0.0073	0.047						
NCS DC 28094	Iron ore	0.03	0.02	0.0029	0.278	0.014	0.015	0.0051	0.8						
NCS DC 28095	Iron ore	0.011	0.0089	0.0072	0.457	0.0015	0.045	0.0067	0.085						

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	FeO	SiO ₂	CaO	MgO	Al ₂ O ₃	Ti	Mn	P	S	K ₂ O	Na ₂ O	Cu	
NCS DC 28021	Pellet	59.95	4.20	7.89	1.75	1.82	2.16	0.084	0.113	0.019	0.048				100
NCS DC 28024	Iron Ore	61.53	0.24	3.43	0.118	0.109	2.12	0.052	0.276	0.068	0.038	0.026	0.034	0.0014	50
NCS DC 28025	Iron Ore	62.11	0.58	2.92	0.021	0.101	2.06	0.051	0.65	0.067	0.013	0.023	0.013	0.0018	50
NCS DC 28026	Iron Ore	62.27	0.59	4.2	0.144	0.156	2.39	0.055	0.17	0.078	0.02	0.023	0.024	0.0015	50
NCS DC 28027	Iron Ore	66.34	0.07	1.02	0.02	0.063	1.42	0.057	0.48	0.034	0.0071	0.013	0.0055	0.0085	50
NCS DC 28028	Iron Ore	66.47	0.58	1.79	0.028	0.091	1.36	0.046	0.137	0.055	0.0066	0.014	0.005	0.0014	50
NCS DC 28029	Iron Ore	72.01	28.63	0.158	0.025	0.042	0.095	0.028	0.043	0.0013	0.0028	0.0068	0.0008	0.0007	70
NCS DC 28030	Iron Ore	60.82	0.21	3.45	0.035	0.112	2.27	0.056	0.298	0.073	0.041	0.022	0.026		70
NCS DC 28031	Iron Ore	61.82	0.55	2.94	0.024	0.085	2.26	0.054	0.61	0.073	0.012	0.024	0.012		70
NCS DC 28032	Iron Ore	68.29	0.24	0.85	0.074	0.025	0.74	0.050	0.096	0.028	0.0028	0.0063	0.015		70
NCS DC 28034	Iron Ore	53.42	15.27	5.22	0.31	11.21	0.57	0.044	0.065	0.018	0.192	0.086	0.25		70
NCS DC 28035	Iron Ore	65.66	0.54	1.92	0.056	0.102	1.64	0.048	0.135	0.060	0.022	0.018	0.007		70
NCS DC 28036	Iron Ore	59.71	0.62	5.18	0.317	0.233	2.76	0.066	0.192	0.078	0.090	0.042	0.086		70
NCS DC 28037	Iron Ore	66.54	0.21	0.962	0.031	0.054	1.43	0.051	0.482	0.034	0.0071	0.012	0.015		70
NCS DC 28038	Iron Ore	55.19	6.23	6.79	9.19	2.22	1.83	0.123	0.222	0.057	0.028	0.070	0.057		70
NCS DC 28039	Iron Ore	72.02	28.78	0.14	0.026	0.043	0.095	0.029	0.043	0.0016	0.0030	0.0064	0.0008		70
NCS DC 28040	Iron Ore	58.04	3.11	5.06	4.41	1.17	2.04	0.084	0.269	0.063	0.038	0.048	0.039		70
NCS DC 28041	Manganese Ores	0.85		56.03	2.07	0.6	8.25			0.011	0.012	3.74	0.48		50
NCS DC 28042	Manganese Ores	10.62		24.73	6.2	3.14	2.8			0.074	0.044	0.83	0.049		50
NCS DC 28043	Manganese Ores	10.68		17.3	1.15	0.7	6.4			0.171	0.1	0.65	0.058		50
NCS DC 28044	Manganese Ores	6.9		17.7	3.3	1.29	2.08			0.105	0.021	0.49	0.076		50
NCS DC 28045	Manganese Ores	2.75		16	0.195	0.182	2.35			0.23	0.0086	1.48	0.034		50
		Co	As	Pb	Cr	Zn	B ₂ O ₃	TMn	MnO ₂	TiO ₂	BaO	Ni	V		
NCS DC 28024	Iron Ore	0.0009	0.0011	0.0008	0.0054	0.002									
NCS DC 28025	Iron Ore	0.0015	0.0011	0.0008	0.0038	0.0026									
NCS DC 28026	Iron Ore	0.001	0.0013	0.0004	0.0027	0.0026									
NCS DC 28027	Iron Ore	0.0009	0.0004	0.0013	0.0015	0.0032									
NCS DC 28028	Iron Ore	0.0008	0.0012	0.0013	0.003	0.0044									
NCS DC 28029	Iron Ore	0.0008	0.00012	0.0002	0.0062	0.0026									
NCS DC 28034	Iron Ore						3.62								
NCS DC 28041	Manganese Ores		0.013	0.0025		0.015		14.45	20.66	0.177	0.064				
NCS DC 28042	Manganese Ores		0.032	0.0066	0.0023	0.012		22.18	18.35	0.123	0.164	0.0044	0.0044		
NCS DC 28043	Manganese Ores		0.089	0.11	0.013	0.235		30.99	45.61	0.215	1.11	0.083	0.019		
NCS DC 28044	Manganese Ores		0.039	0.0083	0.0018	0.027		36.31	45.01	0.085	0.41	0.01	0.0075		
NCS DC 28045	Manganese Ores		0.042	0.011	0.038	0.07		44.97	67.67	0.105	0.058	0.079	0.018		
Number	Name	Chemical composition(percent)												Unit Size (in g)	
		TFe	SiO ₂	Sb	S	Cu	MgO	As	Pb	Zn	Bi	Ag	WO ₃	Sn	
NCS DC 35001	Tin Concentrate	21.33		0.024	0.183			0.574	2.89	0.264	0.034	0.00255		45.80	100
NCS DC 35002	Tin Concentrate	9.53	0.930	0.016	0.090	0.043		0.306	1.62	0.120	0.020		0.182	62.49	100
NCS DC 35008	Tin Ore	22.62		0.013		0.037		0.084	2.07	0.51		19.8(g/t)		0.125	60
NCS DC 35009	Tin Ore		4.99			1.09		2.17	0.095	1.49	1.20			0.930	60
NCS DC 35011	Sn Ore					0.077		0.046							70
NCS DC 35012	Sn Ore					0.109		0.097							70
NCS DC 35014	Tin Concentrate		(1.10)	0.019		0.067	(0.13)	0.414	2.20	0.196	0.028				100
NCS DC 35015	Manganese Ore	3.97				0.006		0.015	0.015	0.0036					80
		Fe	Ni	Co	MnO ₂	TMn									
NCS DC 35014	Tin Concentrate	14.77													
NCS DC 35015	Manganese Ore		0.014	0.025	68.28	49.00									
Number	Name	Chemical composition(percent)										Unit Size (in g)			
		Zn	Pb	Fe	Cd	As	SiO ₂	CaO	MgO						
NCS DC 35017	Zinc Concentrate	46.93	1.69	0.432	0.199	0.013	6.65	2.65	1.46			50			

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	Mn	Ti	P	S	K ₂ O	Na ₂ O		
NCS DC 28046	Sintered Ore	56.14	9.17	5.54	2.07	10.35	2.21	0.227	0.076	0.064	0.032	0.125	0.048	70	
NCS DC 28047	Sintered Ore	50.04	8.07	7.6	2.11	13.72	2.08	0.39	0.067	0.028	0.125	0.091	0.53	70	
NCS DC 28048	Sintered Ore	54.16	8.52	6.04	2.23	10.93	3.05	0.21	0.075	0.068	0.052	0.076	0.19	70	
NCS DC 28049	Sintered Ore	52.16	8.06	6.92	2.17	13.05	1.63	0.44	0.067	0.024	0.096	0.082	0.38	70	
NCS DC 28050	Sintered Ore	53.26	9.53	6.24	2.24	11.31	2.7	0.286	0.082	0.049	0.075	0.084	0.44	70	
NCS DC 28051	Pellet Iron Ore	63.56	0.35	4.57	0.926	1.12	1.48	0.134	0.071	0.018	0.015	0.13	0.07	70	
NCS DC 28052	Pellet Iron Ore	64.53	0.28	5.65	0.77	0.3	0.32	0.075	0.122	0.025	0.0053	0.038	0.054	70	
NCS DC 28053	Pellet Iron Ore	61.68	0.24	10.32	0.84	0.33	0.38	0.042	0.063	0.017	0.02	0.071	0.046	70	
Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		Cu	S	MgO	As	Zn	Pb	Ag(g/t)	Sb	Au(g/t)	Fe	Mn	Cd		Ni
NCS DC 28054	Copper Ore	6.78	0.082	12.51	0.209	0.456	0.106	126.1		0.05	15.39	0.124	0.0021	<0.005	50
NCS DC 28055	Copper Ore	12.79	1.54	0.18	4.68	0.64	0.037	85.9	0.25	0.04	3.22	0.11	0.0067	0.017	50
NCS DC 28056	Copper Ore	8.46	0.86	7.04	2.14	0.503	0.087	109.9	0.22	0.05	10.44	0.169	0.0064	0.011	50
NCS DC 28057	Copper Concentrate	10.71	25.05	4.01	0.034	0.052	0.019	12		6.16	29.34	0.084	<0.001	0.072	20
NCS DC 28058	Copper Concentrate	20.56	22.87	7.63	0.012	0.194	0.015	17.1		4.68	24.7	0.013	<0.001	0.093	20
NCS DC 28059	Copper Concentrate	16.6	23.92	5.81	0.02	0.131	0.017	14.8		5.1	26.39	0.044	<0.001	0.082	20
		F	Bi												
NCS DC 28054	Copper Ore	1.15	0.283												
NCS DC 28055	Copper Ore	0.028	0.023												
NCS DC 28056	Copper Ore	0.53	0.19												
NCS DC 28057	Copper Concentrate	0.036													
NCS DC 28058	Copper Concentrate	0.056													
NCS DC 28059	Copper Concentrate	0.052													
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		TMn	TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	K ₂ O	Na ₂ O	S	P	MnO ₂			
NCS DC 28060	Manganese Ore	18.22	5.86	38.94	10.39	1.22	0.84	2.34	0.054	0.025	0.082	27.06		50	
NCS DC 28061	Manganese Ore	22.93	6.71	31.42	9.88	1.11	0.94	1.95	0.053	0.23	0.073	33.45		50	
NCS DC 28062	Manganese Ore	34.67	8.05	10.7	9.97	0.48	0.87	1.14	0.063	0.011	0.05	51.64		50	
NCS DC 28063	Manganese Ore	27.45	8.1	20.96	10.05	0.99	1.16	1.57	0.064	0.6	0.059	39.38		50	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		CaF ₂	SiO ₂	CaCO ₃	Fe ₂ O ₃	S	P	K ₂ O	Na ₂ O	MgO	Al ₂ O ₃		Mn		
NCS DC 28084	Fluorspar	46.59	28.89	9.08	0.52	0.071	0.0071	0.34	0.061	5.51	0.99	0.051		50	
NCS DC 28085	Fluorspar	60.16	27.17	3.73	1.32	0.52	0.021	0.41	0.067	1.99	1.29	0.034		50	
NCS DC 28086	Fluorspar	73.73	19.27	2.06	0.87	0.28	0.023	0.38	0.054	0.73	1.07	0.027		50	
NCS DC 28087	Fluorspar	83.12	13.74	1.06	0.36	0.05	0.018	0.28	0.031	0.14	0.69	0.0099		50	
NCS DC 28088	Fluorspar	96.87	1.76	0.14	0.173	0.092	0.015	0.036	0.019	0.015	0.14	0.04		50	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		SiO ₂	CaO	MgO	Fe ₂ O ₃	Al ₂ O ₃	MnO	P ₂ O ₅	TiO ₂	SrO	K ₂ O	Na ₂ O	S	L.O.I	
NCS DC 28089	Magnesite	4.13	1.52	43.45	1.74	1.14	0.095	0.036	0.041	0.0013	0.037	0.018	0.015	47.35	50
NCS DC 28089a	Magnesite	4.95	1.26	43.44	1.66	1.46	0.083	0.037	0.048	0.0014	0.044	0.02	0.015	46.57	50
NCS DC 28090	Magnesite	0.32	0.53	46.4	0.65	0.1	0.016	0.013	0.006	0.0005	0.005	0.017	0.0027	51.58	50
Number	Name	Chemical Composition(Percent)													
		TiO ₂	TFe	FeO	SiO ₂	CaO	MgO	Al ₂ O ₃	MnO	S	P ₂ O ₅	K ₂ O	Na ₂ O	Cr ₂ O ₃	
NCS DC28096	Titanium concentrate	14.12	50.2	24.52	6.88	0.7	2.45	3.29	0.52	0.089	0.144	0.052	1.09	0.058	50
NCS DC28097	Titanium concentrate	45.1	33.49	36.43	2.97	1.17	1.53	1.79	0.68	1.13	0.188	0.025	0.053	0.051	50
NCS DC28098	Titanium concentrate	36.78	34.87	35.49	6.78	1.13	2.92	3.2	0.65	0.39	0.22	0.079	0.11	0.079	50
NCS DC28099	Titanium concentrate	25.78	27.53	24.22	16.25	4.5	2.34	6.28	0.46	2.21	1.82	0.24	1.52	0.079	50
NCS DC28100	Titanium concentrate	44.93	32.9	18.52	2.34	1.1	0.79	1.44	1.01	0.011	0.25	0.06	0.033	1.96	50
		V ₂ O ₅	Cu	Ni	C										
NCS DC28096	Titanium concentrate	0.5	0.0059	0.009	0.18										
NCS DC28097	Titanium concentrate	0.086	0.016	0.022	0.32										
NCS DC28098	Titanium concentrate	0.136	0.0047	0.015	0.26										
NCS DC28099	Titanium concentrate	0.14	0.033	0.048	0.37										
NCS DC28100	Titanium concentrate	0.2	0.0041	0.0081	0.037										

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)											Unit Size (in g)
		S	Pb	Cu	Zn	TFe	As	Ag(g/t)	SiO ₂	Al ₂ O ₃	MgO	CaO	
NCS DC28178	Lead Concentrate	3.94	42.84	0.35	1.53	15.38	0.816	933	6.55	2.01	0.412	1.73	25
NCS DC28179	Lead Concentrate	15.71	57.44	0.29	2.33	3.08	0.019	240	3.52	1.13	0.374	4.86	25
NCS DC28180	Lead Concentrate	14.22	73.42	0.058	2.68	1.7	0.0013	250	1.81	0.54	0.042	0.3	25
		Mn	Cd										
NCS DC28178	Lead Concentrate	0.345	0.005										
NCS DC28179	Lead Concentrate	0.427	0.019										
NCS DC28180	Lead Concentrate	0.57	0.022										
		Chemical Composition(Percent)							Unit Size (in g)				
		St	Sa	As	F	Pb	Zn	Co					
NCS DC28181-1	Pyrites and Pyrites concentrate	39.52	38.74	7.8	0.064	0.712	0.075					5	
NCS DC28181-2	Pyrites and Pyrites concentrate	19.68	17.25	0.018	0.055	<0.005	0.014	0.377				5	
NCS DC28181-3	Pyrites and Pyrites concentrate	29.95	29.16	0.267	0.068	0.225	0.106					5	
NCS DC28181-4	Pyrites and Pyrites concentrate	35.21	34.48	4.96	0.06	0.479	0.088					5	
NCS DC28181-5	Pyrites and Pyrites concentrate	28.38										5	
NCS DC28181-6	Pyrites and Pyrites concentrate	28.4	47.24	0.3	0.036	0.469	1.61	0.034				5	

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(g/T)												Unit Size (in g)	
NCS DC 28101	Gold ore	Au	Ag											500	
NCS DC 28102	Gold ore	2.5	2.2											500	
NCS DC 28103	Gold ore	1.8	3.1											500	
NCS DC 28104	Gold ore	63.4	62.2											250	
NCS DC 28105	Gold ore	5	5.8											500	
NCS DC 28106	Gold ore	11	11											500	
NCS DC 28107	Gold ore	20	20.4											250	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
NCS DC 28108	MAGNETIC IRON ORE	TFe	FeO	SiO ₂	S	P	Ti	TiO ₂	Al ₂ O ₃	MgO	K ₂ O	Na ₂ O	Mn	Cu	70
NCS DC 28109	MAGNETIC IRON ORE	46.93	19.95	14.75	0.637	0.039	0.067	0.112	2.05	5.54	0.33	0.22	0.058	0.119	70
NCS DC 28110	MAGNETIC IRON ORE	66.52	27.91	3.26	0.064	0.0062	0.037	0.061	0.62	1.96	0.091	0.032	0.07	0.01	70
NCS DC 28111	MAGNETIC IRON ORE	62.63	23.21	3.15	0.255	0.017	0.096	0.16	1.19	5.21	0.068	0.023	0.17	0.018	70
NCS DC 28112	MAGNETIC IRON ORE	50.94	20.67	13.83	0.43	0.033	0.065	0.108	1.42	3.95	0.204	0.14	0.098	0.305	70
NCS DC 28113	MAGNETIC IRON ORE	56.23	24.15	7.81	0.369	0.023	0.62	1.03	1.39	4.89	0.133	0.07	0.132	0.527	70
NCS DC 28114	MAGNETIC IRON ORE	64.42	27	3.56	0.381	0.011	0.315	0.522	0.9	3.28	0.099	0.034	0.109	0.047	70
NCS DC 28115	MAGNETIC IRON ORE	65.71	27.14	2.07	0.158	0.013	0.418	0.697	0.83	3.33	0.048	0.015	0.127	0.016	70
NCS DC 28116	LEAD ORE	68.29	28.25	2.08	0.041	0.0047	0.034	0.057	0.43	1.25	0.06	0.021	0.061	0.0065	70
NCS DC 28116	LEAD ORE	6.78		7.92	19.26				2.56	1.28			0.029	0.85	25
		Zn	As	CaO	Pb	Ag	Cd	Sb	Bi						
NCS DC 28108	MAGNETIC IRON ORE	0.0038		7.12											
NCS DC 28109	MAGNETIC IRON ORE	0.0052		1.1											
NCS DC 28110	MAGNETIC IRON ORE	0.01		1.09											
NCS DC 28111	MAGNETIC IRON ORE	0.017	0.083	4.85											
NCS DC 28112	MAGNETIC IRON ORE	0.037	0.167	2.73											
NCS DC 28113	MAGNETIC IRON ORE	0.0096	0.013	1.06											
NCS DC 28114	MAGNETIC IRON ORE	0.008		0.72											
NCS DC 28115	MAGNETIC IRON ORE	0.0037		0.7											
NCS DC 28116	LEAD ORE	1.44	0.068	17.16	15.09	0.022	0.0097	0.0084	0.085						
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
NCS DC 28117	Graphite	St,d	Ad	Vd	SiO ₂	Fe ₂ O ₃	CaO	MgO	Al ₂ O ₃	TiO ₂	MnO	K ₂ O	Na ₂ O	P ₂ O ₅	50
NCS DC 28118	Graphite	0.17	3.47	1.33	1.76	0.46	0.19	0.18	0.63	0.014	0.005	0.17	0.009	0.004	50
NCS DC 28119	Graphite	0.49	11.45	1.87	5	1.98	0.91	1	1.92	0.085	0.021	0.19	0.088	0.007	50
NCS DC 28120	Graphite Ore	0.02	29	2.88	15.66	2.09	0.23	0.55	8.13	0.44	0.032	1.33	0.28	0.087	50
NCS DC 28121	Graphite Ore	1.06	95.62	2.22	52.73	5.34	11.81	8.79	10.93	0.39	0.048	2.39	1.5	0.083	50
NCS DC 28121	Graphite Ore	0.99	90.65	2.48	50.28	5	11.12	8.43	10.72	0.36	0.047	2.32	1.38	0.083	50
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
NCS DC 28122	Vanadium-titanium-Magnetic Iron Ore	TFe	TiO ₂	SiO ₂	Al ₂ O ₃	CaO	MgO	S	P	V ₂ O ₅	Cr ₂ O ₃	FeO	MnO	Ni	70
NCS DC 28123	Vanadium-titanium-Magnetic Iron Ore	56.26	14.48	1.72	2.73	0.42	2.22	0.014	0.061	0.56	0.076	29.22	0.546	0.0058	70
NCS DC 28124	Vanadium-titanium-Magnetic Iron Ore	54.89	9.63	7.44	1.20	4.06	0.83	0.203	0.081	0.251	0.018	26.56	0.331	0.0041	70
NCS DC 28125	Vanadium-titanium-Magnetic Iron Ore	55.23	11.71	5.15	1.80	2.54	1.42	0.118	0.074	0.368	0.040	27.48	0.421	0.0044	70
NCS DC 28126	Vanadium-titanium-Magnetic Iron Ore	50.16	13.92	7.16	3.33	1.69	2.78	0.015	0.080	0.623	0.068	26.05	0.50	0.0063	70
NCS DC 28127	Vanadium-titanium-Magnetic Iron Ore	58.18	12.24	1.59	2.18	0.366	1.90	0.016	0.052	0.834	0.055	29.06	0.481	0.0053	70
NCS DC 28127	Vanadium-titanium-Magnetic Iron Ore	52.26	10.32	8.10	2.98	1.88	2.50	0.014	0.092	0.715	0.040	25.80	0.411	0.0058	70
		Cu	Co	Zn											
NCS DC 28122	Vanadium-titanium-Magnetic Iron Ore	0.0048	0.010	0.061											
NCS DC 28123	Vanadium-titanium-Magnetic Iron Ore	0.0070	0.0066	0.0085											
NCS DC 28124	Vanadium-titanium-Magnetic Iron Ore	0.0061	0.010	0.028											
NCS DC 28125	Vanadium-titanium-Magnetic Iron Ore	0.0065	0.015	0.055											
NCS DC 28126	Vanadium-titanium-Magnetic Iron Ore	0.0042	0.015	0.050											
NCS DC 28127	Vanadium-titanium-Magnetic Iron Ore	0.0058	0.012	0.040											

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Cr ₂ O ₃	TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	S	P	Ti	V	Mn	Ni	K ₂ O	
NCS DC 28128	Chromite Ore	27.55	9.76	12.55	18.94	1.27	20.48	0.035	0.0029	0.145	0.077	0.114	0.169	0.043	50
NCS DC 28129	Chromite Ore	33.00	12.90	12.19	13.94	1.00	17.27	0.021	0.0030	0.136	0.089	0.180	0.162	0.035	50
NCS DC 28130	Chromite Ore	46.74	20.34	0.79	14.53	0.053	9.79	0.003	0.0027	0.373	0.215	0.156	0.092	0.014	50
NCS DC 28131	Chromite Ore	45.10	19.66	2.93	13.70	0.18	10.37	0.0029	0.0033	0.344	0.207	0.150	0.094	0.015	50
NCS DC 28132	Chromite Ore	36.50	14.83	7.70	16.22	0.69	15.32	0.022	0.0028	0.244	0.143	0.133	0.134	0.033	50
NCS DC 28133	Chromite Ore	40.20	16.74	4.73	15.97	0.46	13.41	0.017	0.0037	0.294	0.162	0.142	0.121	0.023	50
		Co	Zn												
NCS DC 28128	Chromite Ore	0.016	0.049												
NCS DC 28129	Chromite Ore	0.027	0.102												
NCS DC 28130	Chromite Ore	0.025	0.071												
NCS DC 28131	Chromite Ore	0.025	0.065												
NCS DC 28132	Chromite Ore	0.022	0.058												
NCS DC 28133	Chromite Ore	0.022	0.065												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	TiO ₂	SiO ₂	Al ₂ O ₃	CaO	MgO	S	P	V ₂ O ₅	Cr ₂ O ₃	FeO	MnO	Ni	
NCS DC 28134	Titanium Ore	14.85	7.11	38.43	8.67	12.39	6.33	0.196	0.883	0.062	0.0084	12.45	0.216	0.0037	50
NCS DC 28135	Titanium Ore	15.07	6.14	42.61	8.82	9.87	6.78	0.021	0.232	0.092	0.0095	12.77	0.187	0.0098	50
NCS DC 28136	Titanium Ore	26.50	27.23	14.41	2.31	9.49	2.34	4.77	1.07	0.066	0.0078	23.62	0.802	0.013	50
NCS DC 28137	Titanium Ore	30.31	40.66	9.21	1.35	4.78	1.30	1.52	0.117	0.068	0.0064	33.33	1.20	0.0084	50
NCS DC 28138	Titanium Ore	34.79	47.82	2.65	0.68	0.68	2.11	0.184	0.0076	0.095	0.014	39.14	0.652	0.0029	50
NCS DC 28139	Titanium Ore	22.04	55.68	1.54	2.30	0.070	1.09	0.025	0.047	0.266	2.80	9.15	1.26	0.0007	50
NCS DC 28140	Titanium Ore	33.02	45.73	4.85	0.95	2.23	1.68	0.74	0.048	0.203	0.012	36.68	0.882	0.0051	50
NCS DC 28141	Titanium Ore	33.58	45.61	4.16	0.867	1.65	1.74	0.536	0.047	0.188	0.0067	37.51	0.799	0.0046	50
NCS DC 28142	Titanium Ore	30.23	50.06	2.04	1.30	0.68	1.52	0.172	0.048	0.700	0.84	28.85	0.875	0.0021	50
NCS DC 28143	Titanium Ore	29.29	35.60	10.41	1.65	6.25	1.55	2.76	0.476	0.505	0.0077	29.34	1.02	0.011	50
		Cu	Co	Zn											
NCS DC 28134	Titanium Ore	0.0082	0.0052	0.019											
NCS DC 28135	Titanium Ore	0.016	0.0079	0.018											
NCS DC 28136	Titanium Ore	0.038	0.015	0.015											
NCS DC 28137	Titanium Ore	0.022	0.010	0.014											
NCS DC 28138	Titanium Ore	0.0056	0.0087	0.016											
NCS DC 28139	Titanium Ore	0.0093	0.0026	0.017											
NCS DC 28140	Titanium Ore	0.013	0.051	0.016											
NCS DC 28141	Titanium Ore	0.011	0.0098	0.015											
NCS DC 28142	Titanium Ore	0.0073	0.011	0.017											
NCS DC 28143	Titanium Ore	0.027	0.013	0.016											
Number	Name	Chemical Composition(g/T)												Unit Size (in g)	
		CaO	MgO	Fe ₂ O ₃	SiO ₂	Al ₂ O ₃	MnO	S	P ₂ O ₅	K ₂ O	Na ₂ O	TiO ₂	L.O.I		
NCS DC 28144	Potassium Feldspar	1.05	0.329	1.04	69.12	13.84	0.03	0.584	0.02	3.84	4.72	0.089	1.61	50	
NCS DC 28145	Potassium Feldspar	5.77	3.39	0.88	59.33	12.14	0.026	0.41	0.017	3.46	4.05	0.071	8.13	50	
Number	Name	Chemical Composition(g/T)											Unit Size (in g)		
		CaF ₂	SiO ₂	CaCO ₃	Fe ₂ O ₃	S	P	K ₂ O	Na ₂ O	MgO	Al ₂ O ₃	MnO		TiO ₂	
NCS DC 28146	Fluorspar	94.39	4.65	0.14	0.28	0.13	0.0036	0.012	0.006	0.003	0.113	0.005	0.0019	50	
NCS DC 28147	Fluorspar	90.28	8.34	0.15	0.34	0.155	0.0041	0.064	0.008	0.0049	0.317	0.0046	0.003	50	
NCS DC 28148	Fluorspar	96.31	3	0.17	0.163	0.025	0.0043	0.014	0.008	0.0022	0.09	0.0024	(0.001)	50	
NCS DC 28149	Fluorspar	87.45	10.03	0.21	0.38	0.198	0.0052	0.153	0.009	0.012	0.63	0.0049	0.0054	50	
NCS DC 28150	Fluorspar	80.3	15.52	0.25	0.47	0.184	0.0076	0.57	0.03	0.03	1.69	0.0094	0.014	50	
NCS DC 28151	Fluorspar	79.24	15.8	0.98	0.59	0.103	0.011	0.54	0.078	0.096	1.71	0.044	0.025	50	

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(g/T)													Unit Size (in g)	
		CaO	MgO	Fe ₂ O ₃	SiO ₂	Al ₂ O ₃	MnO	S	P	K ₂ O	Na ₂ O	SrO	TiO ₂	L.O.I		
NCS DC 28152	Limestone	46.71	6.55	0.25	2.42	0.374	0.0046	0.042	0.0017	0.05	0.011	0.016	0.023	43.22	50	
NCS DC 28153	Limestone	41.81	10.37	0.417	2.35	0.543	0.007	0.05	0.0032	0.074	0.011	0.014	0.031	43.81	50	
NCS DC 28154	Limestone	50.61	2.88	0.289	3.02	0.622	0.0054	0.055	0.0028	0.164	0.026	0.024	0.032	41.92	50	
NCS DC 28155	Limestone	46.09	5.98	0.187	4.6	0.283	0.0046	0.033	0.0016	0.038	0.01	0.02	0.015	42.55	50	
NCS DC 28156	Limestone	51.22	2.43	0.181	3.32	0.34	0.0042	0.03	0.0019	0.094	0.0074	0.021	0.02	42.26	50	
NCS DC 28157	Limestone	53.79	1.17	0.151	1.32	0.225	0.0037	0.02	0.0027	0.066	0.0058	0.018	0.014	43.22	50	
NCS DC 28158	Limestone	48.56	4.31	0.302	3.99	0.657	0.0055	0.044	0.0044	0.184	0.028	0.022	0.051	41.7	50	
NCS DC 28159	Limestone	51.95	1.23	0.296	2.36	0.811	0.0077	0.016	0.0017	0.165	0.009	0.02	0.036	42.39	50	
NCS DC 28160	Limestone	54.2	0.82	0.146	0.96	0.328	0.0049	0.019	0.0019	0.084	0.006	0.018	0.016	43.27	50	
NCS DC 28161	Limestone	53.76	1.5	0.143	0.835	0.242	0.0058	0.018	0.0012	0.048	0.006	0.017	0.011	43.37	50	
NCS DC 28162	Dolomite	28.73	19.76	0.475	8.42	1.2	0.02	0.072	0.0028	0.039	0.033	0.019	0.036	40.56	50	
NCS DC 28163	Dolomite	30.22	20.85	0.244	1.87	0.205	0.015	0.038	0.0015	0.018	0.012	0.013	0.0079	45.31	50	
NCS DC 28164	Dolomite	30.15	20.91	0.248	2.16	0.25	0.016	0.039	0.0013	0.027	0.011	0.013	0.012	45.04	50	
NCS DC 28165	Dolomite	29.5	20.43	0.357	5.22	0.706	0.018	0.056	0.002	0.033	0.023	0.016	0.021	43.07	50	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	P ₂ O ₅	MnO	TiO ₂	CaO	MgO	K ₂ O	Na ₂ O	C	S	Cr		
NCS DC 28166	Bauxite	44.5	5.17	22.16	0.075	0.026	1.66	0.18	0.03	0.03	0.015	0.21	0.043	0.019	50	
NCS DC 28167	Bauxite	43.38	7.45	22.69	0.057	0.044	1.35	0.52	0.051	0.023	0.025	0.22	0.058	0.014	50	
NCS DC 28168	Bauxite	45.75	4.88	19.43	0.183	0.028	3.96	0.087	0.035	0.025	0.023	0.203	0.014	0.062	50	
NCS DC 28166	Bauxite	V	Ga	L.O.I	Zr	Sc	Zn									
NCS DC 28166	Bauxite	0.06	0.0028	25.35	0.011	0.0047	<0.005									
NCS DC 28167	Bauxite	0.059	0.0027	23.59	0.0057	0.0052	0.0051									
NCS DC 28168	Bauxite	0.1	0.0071	25	0.038	0.0021	0.0018									
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		Zn	S	Fe	SiO ₂	Pb	Cu	As	Cd	Ag	CaO	MgO				
NCS DC 28169	Zinc Concentrate	43.46	26.7	6.79	5.95	2.66	0.265	0.0014	0.309	0.0048	2.05	0.158		25		
Number	Name	Chemical Composition(g/T)													Unit Size (in g)	
		SiO ₂	CaO	MgO	Fe ₂ O ₃	Al ₂ O ₃	MnO	P	TiO ₂	SrO	K ₂ O	Na ₂ O	S	L.O.I		
NCS DC 28170	Limestone	1.46	48.32	5.49	0.218	0.383	0.0050	0.0028	0.023	0.028	0.145	0.007	0.005	43.68	50	
NCS DC 28171	Limestone	2.20	43.96	8.84	0.290	0.47	0.0064	0.0035	0.024	0.020	0.196	0.0080	0.006	43.82	50	
NCS DC 28171b	Limestone	2.23	49.64	4.13	0.187	0.462	0.0039	0.0032	0.022	0.019	0.272	0.012	0.035	43.18	50	
NCS DC 28172	Limestone	4.70	37.44	12.97	0.300	0.523	0.0055	0.0034	0.030	0.017	0.28	0.013	0.013	43.43	50	
NCS DC 28173	Limestone	0.29	55.43	0.22	0.057	0.078	0.0068	0.0013	0.0051	0.02	0.024	0.007	0.031	43.69	50	
NCS DC 28174	Limestone	0.66	53.08	2.24	0.103	0.18	0.0052	0.0012	0.0080	0.020	0.044	0.005	0.024	43.75	50	
NCS DC 28175	Limestone	0.70	55.04	0.30	0.035	0.220	0.0047	0.0021	0.0068	0.018	0.042	0.006	0.015	43.34	50	
NCS DC 28175b	Limestone	0.76	41.91	11.15	0.316	0.272	0.013	0.0023	0.011	0.0066	0.041	0.003	0.002	44.86	50	
NCS DC 28176	Limestone	0.86	48.92	5.40	0.241	0.360	0.0051	0.0029	0.022	0.029	0.125	0.008	0.008	43.90	50	
NCS DC 28177	Limestone	1.25	54.43	0.50	0.179	0.195	0.0070	0.0018	0.010	0.024	0.048	0.007	0.012	43.10	50	
Number	Name	Chemical Composition(g/T)													Unit Size (in g)	
		TFe	CaO	MgO	SiO ₂	Al ₂ O ₃	S	P	MnO	TiO ₂	Mn	Cu	Cr ₂ O ₃	V ₂ O ₅		
NCS DC 28241	V-Ti magnetite	63.97	0.94	1.74	3.98	1.09	0.04	0.017	0.197	2.59			0.42	0.55	100	
NCS DC 28242	Hematite	53.34	0.43	0.13	8.71	1.78	1.88	0.126		0.087	0.199	0.076			100	
NCS DC 28243	Hematite	55.71	0.3	0.1	6.97	1.07	0.98	0.121		0.049	0.143	0.068			100	
Number	Name	Chemical Composition(g/T)													Unit Size (in g)	
		CaO	MgO	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	S	P	MnO	TiO ₂	SrO	L.O.I				
NCS DC 28244	Limestone	51.32	2.94	1.49	0.39	0.171	0.0082	0.0022	0.0026	0.018	0.018	43.47			50	
NCS DC 28245	Limestone	53.4	1.9	0.37	0.17	0.125	0.014	0.0015	0.0092	0.0085	0.024	43.93			50	
NCS DC 28246	Limestone	54.92	0.37	0.47	0.203	0.107	0.01	0.0017	0.0081	0.0092	0.017	43.54			50	
NCS DC 28247	Limestone	47.82	6.13	0.7	0.222	0.201	0.014	0.0066	0.0095	0.013	0.018	44.46			50	
NCS DC 28248	Limestone	45.88	7.68	0.76	0.24	0.229	0.016	0.0078	0.01	0.014	0.018	44.51			50	

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		SiO ₂	CaO	MgO	Fe ₂ O ₃	Al ₂ O ₃	MnO	P	S	L.O.I	TiO ₂	SrO				
NCS DC 28201	Dolomite	6.75	30.62	20.53	0.085	0.0048	0.0072	0.0012	0.0019	41.00						50
NCS DC 28202	Dolomite	2.12	30.79	20.73	0.275	0.203	0.026	0.0013	0.016	45.22						50
NCS DC 28203	Dolomite	1.45	34.74	17.16	0.404	0.286	0.012	0.016	0.028	45.58						50
NCS DC 28204	Limestone	0.83	50.72	3.96	0.208	0.18	0.012	0.0076	0.016	43.70	0.006	0.046				50
NCS DC 28205	Limestone	2.17	52.42	1.92	0.197	0.39	0.0054	0.0019	0.012	42.53	0.0093	0.023				50
NCS DC 28206	Limestone	4.64	41.66	11.31	0.112	0.16	0.005	0.0032	0.0093	41.70	0.0056	0.015				50
NCS DC 28207	Dolomite	1.26	30.33	20.88	0.44	0.27	0.013	0.018	0.033	46.11						50
NCS DC 28208	Dolomite	0.99	30.8	20.79	0.32	0.23	0.019	0.0013	0.022	46.2						50
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		TMn	MnO ₂	TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	TiO ₂	Cu	Zn	Ni	S		P
NCS DC 28209	Manganese	27.76	21	12	17.54	1.77	5.44	4.08	0.085	0.0066	0.0071	0.0025	0.0067	0.069	50	
NCS DC 28210	Manganese	44.76	66.46	5.72	4.62	7.28	0.24	0.257	0.34	0.062	0.088	0.057	0.014	0.099	50	
NCS DC 28211	Manganese	32.7	32.32	10.47	14.4	3.3	4.21	3.04	0.16	0.02	0.027	0.016	0.009	0.087	50	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	TiO ₂	S	P					
NCS DC 28212	Iron Ore	56.25	26.9	8.86	2.53	8.04	1.96	0.289	0.208	0.197	0.032				50	
NCS DC 28213	Iron Ore	50.92	19.9	13.68	3.28	6.9	3.4	0.943	0.241	0.13	0.05				50	
NCS DC 28214	Iron Ore	65.97	27	5.02	0.7	0.43	0.45	0.094	0.541	0.291	0.013				50	
NCS DC 28215	Iron Ore	63.93	26.9	5.9	1.09	2.06	0.79	0.136	0.444	0.282	0.017				50	
NCS DC 28216	Iron Ore	62.01	26.9	6.74	1.46	3.65	1.1	0.176	0.388	0.258	0.02				50	
NCS DC 28217	Iron Ore	64.82	24.5	4.91	1.3	0.85	0.31	0.088	0.949	0.011	0.053				50	
NCS DC 28218	Iron Ore	64.81	25.4	5.04	0.8	0.65	1.78	0.084	0.477	0.035	0.026				50	
NCS DC 28219	Iron Ore	68.55	23	3.21	0.54	0.21	0.2	0.052	0.116	0.027	0.0054				50	
NCS DC 28220	Iron Ore	69.05	23.8	2.45	0.5	0.2	0.17	0.079	0.313	0.011	0.01				50	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	TiO ₂	P	S					
NCS DC 28221	Iron Ore	67.84	28.8	2.34	0.6	0.63	1.4	0.07	0.0061	0.0046	0.041				50	
NCS DC 28222	Iron Ore	66.64	0.11	27.9	2.96	0.76	0.86	1.62	0.091	0.07	0.0051				50	
NCS DC 28223	Iron Ore	66.31	24.4	4.17	1.04	0.64	0.26	0.085	0.709	0.039	0.011				50	
NCS DC 28224	Iron Ore	63.2	1.4	6.55	1.02	0.86	0.5	0.083	0.319	0.02	0.015				50	
NCS DC 28225	Iron Ore	54.96	10.7	5.89	2.93	11.49	0.98	0.171	0.152	0.05	0.032				50	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		CaF ₂	CaCO ₃	SiO ₂	TFe	Mn	S	P								
NCS DC 28226	Fluorite	77.33	0.20	18.04	0.31	0.014	0.068								50	
NCS DC 28227	Fluorite	78.75	0.33	19.36	0.28	0.012	0.028								50	
NCS DC 28228	Fluorite	94.81	0.99	2.76	0.26	0.010	0.107	0.076							50	
NCS DC 28229	Fluorite	85.56	0.58	10.62	0.28	0.013	0.079	0.045							50	
NCS DC 28230	Fluorite	90.72	0.87	7.68	0.25	0.012	0.084	0.063							50	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	TiO ₂	P	S	Cu	C			
NCS DC 28231	Sintering Ore	56.53	22.9	5.57	1.90	11.46	1.75	0.202	0.103	0.027	0.063				50	
NCS DC 28232	Iron Ore	67.42	27.40	1.80	0.78	0.61	2.43	0.132	0.069	0.0065	0.318				50	
NCS DC 28233	Iron Ore	53.35	17.20	9.42	0.70	2.13	8.83	0.203	0.052	0.012	0.083				50	
NCS DC 28234a	Iron Ore	45.17	15.10	15.55	1.33	4.74	9.82	0.167	0.090	0.023	0.104				50	
NCS DC 28234b	Iron Ore	48.87	15.9	12.85	1.12	3.75	8.88	0.185	0.083	0.022	0.095	0.015	0.544		50	
NCS DC 28234c	Iron Ore	49.64	21.1	11.54	1.87	5.85	5.81	0.112	0.105	0.040	0.504	0.156	0.798		50	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)			
		TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	Cr	Ni	Mn	Ti	Co	S				
NCS DC 28235	High Chromium - Nickel - Iron ore	38.38	15.21	2.89	0.20	8.16	1.50	1.36	0.67	0.042	0.114	0.012			50	
NCS DC 28236	High Chromium - Nickel - Iron ore	49.05	3.60	6.53	0.51	0.64	1.66	1.02	0.51	0.075	0.069	0.112			50	

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)										Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	TiO ₂	P	S	
NCS DC 28237	SinterOre	55.24	13.80	6.45	2.80	10.80	1.22	0.205	0.157	0.048	0.068	50
NCS DC 28238	SinterOre	51.72	16.36	10.74	3.56	9.07	2.95	0.650	0.229	0.053	0.084	50
NCS DC 28239a	Pellet Ore	62.14	0.77	6.32	1.36	1.09	2.13	0.082	0.267	0.020	0.010	50
NCS DC 28239b	Pellet Ore	63.78	0.77	5.29	0.98	0.85	1.59	0.065	0.18	0.016	0.0086	50
NCS DC 28240a	Pellet Ore	66.18	0.78	3.81	0.43	0.51	0.79	0.040	0.048	0.010	0.0066	50
NCS DC 28240b	Pellet Ore	64.58	0.78	4.79	0.80	0.73	1.33	0.057	0.136	0.014	0.0080	50
Number	Name	Chemical Composition									Unit Size (in g)	
		Au(μg/g)	Ag(μg/g)	Cu(%)	Pb(%)	Zn(%)	As(%)	Sb(%)	Hg(mg/g)	Cd(%)		
NCS DC 29101	Gold ore	0.64										500
NCS DC 29102	Gold ore	4.3	37.4	0.3	1.61	0.22						500
NCS DC 29103	Gold ore	20	18	0.12	0.61	0.1						500
NCS DC 29104	Silver ore		50.3	0.19	*83.8	*84.9	0.027	0.012	(3.85)			50
NCS DC 29105	Silver ore		138.1	0.5	0.02	*67.6	0.073	0.032	(10.1)			50
NCS DC 29106	Silver ore		199	0.68	0.01	0.011	0.078	0.05	(18)			50
NCS DC 29107	Copper ore		6.1	0.29	*34.5	0.01	*41.4	*23.4	(0.15)			50
NCS DC 29108	Copper ore		14.9	0.9	*80	0.02	*76.6	*11.7	(0.028)			50
NCS DC 29109	Copper ore		59.9	3.84	0.024	0.083	0.046	*71	(0.043)	*5.68		50
NCS DC 29110	Copper ore		120	8.53	0.027	0.19	0.02	*35.3	(0.039)	*13.5		50
NCS DC 29111	Pb-Zn ore		12.9	0.02	0.48	4.94	*90	*9.0	(12.6)	0.019		50
NCS DC 29112	Pb-Zn ore		362	0.1	2.93	0.51	0.082	0.011	(0.233)			50
NCS DC 29113	Pb-Zn ore		103	0.075	2.19	1.54	0.04	*38.3	(0.074)			50
NCS DC 29114	Pb-Zn ore		367.9	0.071	22.96	16.22	0.138	0.044	(270)	0.066		50
NCS DC 29115	Pb-Zn ore		5.3	0.021	1.25	30.19	*95	*20.5	(84.8)	0.119		50
Number	Name	Chemical Composition								Unit Size (in g)		
		Pt(x10 ⁻⁶)	Pd(x10 ⁻⁶)	Ru(x10 ⁻⁹)	Rh(x10 ⁻⁹)	Ir(x10 ⁻⁹)	Os(x10 ⁻⁹)	Cu(x10 ⁻²)	Ni(x10 ⁻²)			
NCS DC 29116	Platinum Group	2.43	1.68	1.5	1.9	1.6	1.9	3.58	1.78	500		
NCS DC 29117	Platinum Group	10.61	0.6	4.2	3.6	4.4	3.7	3.01	1.76	500		
NCS DC 29118	Platinum Group	0.9	0.7	3.5	3.2	3.2	3	3.25	1.76	500		
NCS DC 29119	Platinum Group	4.44	1.33	0.71	1.4	1.9	1.6	0.62	0.053	500		
NCS DC 29120	Platinum Group	0.38	0.4	7.8	18	23.6	8.2	0.11	0.22	500		
Number	Name	μg/g										Unit Size (in g)
		Ag	As	B	Ba	Be	Bi	Cd	Ce	Co	Cr	
NCS DC36012	Perlite	0.053	0.59	26	164	8.5	0.18	0.07	37	0.33	-2.3	70
NCS DC36013	Sepiolite	0.15	2.3	6.9	72	3.6	0.18	-1.8	39	15	116	70
Number	Name	μg/g										Unit Size (in g)
		Cs	Cu	Dy	Er	Eu	Ga	Gd	Hf	Hg	Ho	
NCS DC36012	Perlite	13.8	-1.9	2	1.46	0.29	22	2	4.3	(3.4)**	0.44	0.04
NCS DC36013	Sepiolite	4	25	3.3	1.8	0.8	5.9	4	-1.2	0.16	0.66	0.027
Number	Name	μg/g										Unit Size (in g)
		La	Li	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	
NCS DC36012	Perlite	21	8.3	0.31	4.8	30	12.4	1.5	46	3.9	334	-38
NCS DC36013	Sepiolite	30	55	0.26	-0.25	3.9	24	57	8.7	6	20	-136
Number	Name	μg/g										Unit Size (in g)
		Sb	Sc	Sm	Sn	Sr	Ta	Tb	Th	Tm	U	
NCS DC36012	Perlite	-0.08	3.4	2.3	2.2	118	3	0.34	35	0.25	19	-2.6
NCS DC36013	Sepiolite	-0.57	5.6	4.3	1.2	49	0.3	0.62	3.8	0.27	5.3	81
Number	Name	μg/g					%					Unit Size (in g)
		W	Y	Yb	Zn	Zr	SiO ₂	Al ₂ O ₃	TFe ₂ O ₃	FeO	MgO	
NCS DC36012	Perlite	1.9	14	1.8	40	91	72.72	12.69	0.62	0.07	0.25	500
NCS DC36013	Sepiolite	0.5	23	1.6	105	43	63.55	4.45	1.46	-0.1	18	500
Number	Name	%										Unit Size (in g)
		CaO	Na ₂ O	K ₂ O	TiO ₂	P ₂ O ₅	MnO	L.O.I.	TC	CO ₂	H ₂ O+	
NCS DC36012	Perlite	0.82	3.03	4.65	0.079	0.004	0.051	4.97	0.028	-0.045	4.91	500
NCS DC36013	Sepiolite	2.56	0.12	0.32	0.18	0.41	0.022	8.55	0.63	1.63	6.39	500

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)							Unit Size (in g)						
		TFe	SiFe	SFe	MFe	OFe	CFe								
NCS DC 47010	State Of Iron Ore	44.67	(1.3)	0.9	10.0	(16.5)	15.6		100						
NCS DC 47011	State Of Iron Ore	52.96	(0.8)	0.7	46.9	(2.6)	2.0		100						
NCS DC 47012	State Of Iron Ore	43.73	(0.7)	6.4	30.0	(2.2)	4.5		100						
NCS DC 47013	State Of Iron Ore	48.76	(2.9)	(0.04)	0.8	(44.7)	0.3		100						
NCS DC 47014	State Of Iron Ore	26.90	(4.8)	(0.08)	18.5	(2.8)	0.8		100						
NCS DC 47015	State Of Iron Ore	35.85	(1.3)	(0.03)	33.8	(0.3)	0.3		100						
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	K ₂ O	Na ₂ O	CaF ₂	L.O.I				
NCS DC 62001	Iron Ore	33.06	5.16	48.86	0.24	2.56	1.00	2.51	0.17		5.45				20
NCS DC 62002	Limestone	2.86	0.56	0.45	0.02	50.94	2.69	0.11	0.14		41.99				20
NCS DC 62003	Fluorite	23.52	2.50	0.63		0.50	0.03	1.21	0.32	67.22	0.62				20
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	K ₂ O	Na ₂ O	MnO	P ₂ O ₅	SO ₃	Cl	fSiO ₂	
NCS DC 60109a	Limestone	4.05	0.94	0.58	0.052	50.09	1.79	0.42	0.027	0.014	0.033	0.054	0.0062	2.02	50
NCS DC 60110a	Limestone	2.25	0.6	0.38	0.03	47.07	5.81	0.2	0.016	0.012	0.037	0.032	0.0054	1.21	50
		L.O.I	CO ₂												
NCS DC 60109a	Limestone	41.53	(41.32)												
NCS DC 60110a	Limestone	43.22	(43.02)												
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	K ₂ O	Na ₂ O	TiO ₂	MnO	P ₂ O ₅	SO ₃	H ₂ O ⁺	L.O.I	
NCS DC 60122a	Kaolin	43.41	34.77	1.5	0.038	0.069	0.78	0.045	0.25	0.002	0.21	5.51	13.24	17.31	50
NCS DC 60123a	Kaolin	45.3	37.7	0.35	0.064	0.021	0.042	0.045	0.06	0.0018	0.16	0.76	15.26	14.81	50

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Fe ₂ O ₃	SiO ₂	Al ₂ O ₃	MnO	FeO	P ₂ O ₅	S	SO ₃	TiO ₂	K ₂ O	Na ₂ O	MgO	CaO	
NCSDC 60102	Clay	10.55	49.98	26.27	0.052	(0.080)	0.14		0.049	0.70	0.79	0.060	0.46	0.13	50
NCSDC 60104	Clay	0.33	53.67	31.32	0.020	(0.052)	0.053		0.023	0.030	1.15	2.55	0.083	1.80	50
NCSDC 60105	Clay	4.64	66.64	13.28	0.088	(0.80)	0.106		0.027	0.66	2.50	1.81	1.84	3.23	60
NCSDC 60106	Shale	5.67	69.53	14.82	0.024	(0.40)	0.043		0.028	0.68	3.76	0.20	0.67	0.22	60
NCSDC 60107a	Limestone	0.11	1.09	0.24	0.0067		0.0081		0.018	0.010	0.084	0.017	0.81	54.03	50
NCSDC 60108a	Limestone	0.17	2.09	0.33	0.0089		0.0061		0.016	0.015	0.17	0.017	2.25	51.61	50
NCSDC 60112	Gypsum	0.16	1.68	0.34					51.91	0.016	0.094	0.065	1.74	39.24	50
NCSDC 60114	Gypsum	0.38	4.16	1.14					37.64	0.058	0.23	0.014	3.19	30.28	50
NCSDC 60115	Gypsum	0.11	0.63	0.14					40.72	0.010	0.026	0.014	2.47	32.30	60
NCSDC 60116	Siliceous Sand Ore	0.093	98.51	0.84	(0.0016)		(0.0041)			0.020	0.061	0.021	0.066	0.077	60
NCSDC 60117	Siliceous Sand Ore	0.21	95.74	2.36	(0.0033)		(0.0076)			0.036	0.67	0.25	0.098	0.17	60
NCSDC 60118	Siliceous Sand Ore	0.48	89.59	5.48	(0.010)		(0.014)			0.102	2.07	1.09	0.16	0.34	60
NCSDC 60119	Graphite Ore	6.73	49.84	12.93	0.084		0.13	1.18		0.57	2.54	1.60	6.10	9.37	60
NCSDC 60120	Graphite Ore	6.99	49.34	13.03	0.054		0.14	2.59		0.64	2.17	1.56	5.35	5.34	50
NCSDC 60121	Graphite Ore	1.48	10.34	5.60	0.022		0.16	0.14		0.55	0.99	0.23	0.50	0.74	50
NCSDC 60122	Kaolin	0.50	54.55	31.41	0.0032	(0.026)	0.099		0.53	0.69	0.34	0.015	0.12	0.052	50
NCSDC 60123	Kaolin	0.72	44.55	38.62	0.0054	(0.33)	0.21		0.12	0.39	0.049	0.069	0.068	0.16	50
NCSDC 60124	Siliceous Lime	0.10	50.50	0.39	0.096	0.28	0.052	(0.010)		0.022	0.14	0.052	0.95	40.39	50
NCSDC 60125	Nephelinite	1.37	60.64	20.05	0.050	0.28	0.020	(0.011)		0.12	5.06	8.97	0.13	0.52	50
NCSDC 60126	Nephelinite	0.33	39.42	29.67	0.031	1.24	0.072		(0.064)	0.14	4.72	12.59	0.92	5.98	50
NCSDC 60127	Pyrophyllite	1.94	66.84	23.58	0.0037		0.20		0.61	0.70	0.38	0.34	0.087	0.17	50
NCSDC 60128	Pyrophyllite	0.22	70.34	22.20	0.0040		0.11		0.17	0.18	0.028	0.043	0.041	0.066	50
NCSDC 60129	Brucite	0.49	2.69	0.053	0.036		0.12				0.0041	0.0066	61.43	2.51	50
NCSDC 60130	Brucite	0.40	4.47	0.067	0.033		0.12				0.0066	0.013	56.21	6.18	50
NCSDC 60131	Talcum	0.29	62.03	0.082	0.0015		0.14			0.0052	0.009	0.022	31.89	0.38	50
NCSDC 60132	Talcum	2.64	47.71	7.62	0.021		0.11			0.52	0.026	0.049	29.50	2.39	50
		Ash	Vdatile	Co	fsio ₂ *	CO ₂	H ₂ O*	Cl	L.O.I	SrO	Cr ₂ O ₃	A.U.M*			
NCSDC 60102	Clay					(0.041)	(9.64)	0.0041	10.62						
NCSDC 60104	Clay					(0.051)	(8.64)	0.0029	8.81						
NCSDC 60105	Clay					1.65	(3.38)	0.011	5.10						
NCSDC 60106	Shale					0.13	(3.71)	0.014	4.17						
NCSDC 60107a	Limestone				0.67	(43.12)		0.0028	43.12						
NCSDC 60108a	Limestone				1.38	(42.59)		0.0066	42.84						
NCSDC 60112	Gypsum					(4.02)	0.39	0.033	4.55	(0.27)					
NCSDC 60114	Gypsum					(5.80)	16.62	0.013	(22.88)	(0.077)					
NCSDC 60115	Gypsum					(5.44)	17.95	0.0032	23.60	(0.096)					
NCSDC 60116	Siliceous Sand Ore								0.24		0.00034				
NCSDC 60117	Siliceous Sand Ore								0.35		0.00054				
NCSDC 60118	Siliceous Sand Ore								0.53		0.0012				

Section 4 Mineral & Geology(Powder)

		Ash	Volatile	Co	fsio ₂ *	CO ₂	H ₂ O*	Cl	L.O.I	SrO	Cr ₂ O ₃	A.U.M*		
NCSDC 60119	Graphite Ore			2.91		3.60	2.60							
NCSDC 60120	Graphite Ore			9.91		0.67	2.80							
NCSDC 60121	Graphite Ore	20.78	2.72	76.50		0.28	1.98							
NCSDC 60122	Kaolin					(0.026)	11.72		11.94					
NCSDC 60123	Kaolin					(0.06)	14.77		15.00					
NCSDC 60124	Siliceous Lime						2.34		6.93					
NCSDC 60125	Nephelinite						1.78							
NCSDC 60126	Nephelinite				2.97									
NCSDC 60127	Pyrophyllite						4.15		5.48					
NCSDC 60128	Pyrophyllite						5.17		6.34					
NCSDC 60129	Brucite					8.08	(25.24)							
NCSDC 60130	Brucite					9.95	(23.22)							
NCSDC 60131	Talcum					0.34	4.73		5.14			(92.78)		
NCSDC 60132	Talcum					2.17	7.34		9.40			(83.13)		

*fsio₂ is free SiO₂; A. U. M is acid-unsolvable material.

Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		Fe ₂ O ₃	SiO ₂	Al ₂ O ₃	SO ₃	TiO ₂	K ₂ O	Na ₂ O	MgO	CaO	L.O.I	B ₂ O ₃	F	
NCSDC 61101	Soff Clay	0.86	55.90	28.57		1.21	1.54	1.74	0.30	0.70	8.72			50
NCSDC 61102	Potassium Feldspar	0.19	66.26	18.63		0.048	9.60	3.69	0.054	0.76	0.86			50
NCSDC 61103	Na-Ca-Si Glass	0.18	71.25	2.56	0.17	0.057	1.10	13.77	3.98	6.37	0.44			50
NCSDC 61104	Boron Silicate Glass	0.34	53.98	14.50		0.19	0.59	0.096	4.40	16.54	0.26	8.87	0.54	50
NCSDC 61105	Alumine	1.18	8.17	85.07		3.76	0.44	0.080	0.21	0.24	0.29			50
NCSDC 61106	Albite Cement	0.10	67.96	19.62		0.054	0.098	11.26	0.015	0.48	0.36			50

Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	SO ₃	K ₂ O	Na ₂ O	I.R		L.O.I	
NCS DC 62101b	Portland	20.88	4.48	2.64	0.32	62.76	2.05	2.98	0.66	0.11	0.75	3.00		20
NCS DC 62102a	Cement	21.19	5.31	3.17	0.32	58.67	2.91	2.33	0.91	0.14		4.50		20
NCS DC 62103a	Cement Clinker	21.91	4.80	4.12	0.24	64.42	1.81	0.39	1.07	0.14	0.16	0.80		20
NCS DC 62104a	Cement Black Raw Meal	14.26	3.70	2.45	0.24	38.70	1.61	0.39	0.70	0.28		37.40		20
NCS DC 62105a	Cement raw meal	11.77	3.27	2.09	0.19	43.94	1.58	0.10	0.59	0.10		36.18		20

Number	Name	Chemical Composition(Percent)										Adhered Crystallized Indissoluble			Unit Size (in g)
		L.O.I	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	SO ₃	K ₂ O	Na ₂ O	water	water	material	
NCS DC 62106	Gypsum	24.48	6.37	1.87	0.57	0.10	29.32	6.26	30.36	0.38	0.08	micro	11.56	9.01	20

Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	K ₂ O	Na ₂ O	L.O.I	SO ₃	S	I.R	
NCS DC 62107	Alumina	4.97	83.90	3.91	4.19	0.99	0.46	0.38	0.11	0.44				20
NCS DC 62108b	Clay	65.00	15.48	6.16	0.77	1.47	1.60	2.40	1.10	5.55	0.06			20
NCS DC 62109	Portland pozzolanic cement	32.67	6.52	3.54	0.16	47.57	1.86	1.43	0.85	2.44	2.59			20
NCS DC 62110	Portland blast-furnace slag cement	23.48	6.26	2.39	0.43	57.4	3.31	0.59	0.17	3.68	2.02			20
NCS DC 62111	Portland fly ash cement	24.31	8.93	4.9	0.33	46.52	1.9	0.61	0.32	9.09	2.47			20
NCS DC 62112	Aluminate cement	7.95	51.15	1.91	2.03	34.56	0.63	0.13	0.04	0.68		0.1		20
NCS DC 62113	Granulated blast-furnace slag for cement	34.93	12.23	1.26	1.06	35.62	10.66	0.54	0.42	1.05	1.17	0.61		20
NCS DC 62114	Pozzolana in cement industry	57.53	24.2	5.1	1.07	2.83	1.24	3.05	1.42	2.99	0.08			20
NCS DC 62115	fly ash cement industry	48.93	36.62	4.37	1.46	4.42	0.84	0.57	0.17	1.76	0.35			20
NCS DC 62116	Composite portland cement	16.34	4.01	2.22	0.22	57.86	2.28	0.55	0.11	13.86	2.3			20
NCS DC 62117	white portland cement	20.49	4.61	0.26	0.12	65.71	0.14	0.05	0.05	6.43	1.9			20
NCS DC 62118	moderate heat portland cement	21.73	4.75	4.12	0.23	60.99	4.37	0.43	0.12	0.81	2.27		1.18	20

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)						Unit Size (in g)								
		Pozzolana or coal ash	Slag	Limestone	CO ₂ (not solved slag)	Cl-										
NCS DC 62119	Contet of mixed materials of ordinary portland cement	4.5	5.8	1.2	0.98			20								
NCS DC 62120	Contet of mixed materials of portland blast-furnace slag cement	0.5	18.5	7	3.5	97.5		20								
NCS DC 62121	Chloride content of cement raw meal						0.029	20								
NCS DC 62122	Chloride content of cement						0.012	20								
Number	Name	Chemical Composition(Percent)													Unit Size (in g)	
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	SO ₃	K ₂ O	Na ₂ O	L.O.I	F	CaF ₂			
NCS DC 62123	Sulphoaluminate cement clinker	8.56	32.6	2.21	1.51	43.4	1.37	9.55	0.22	0.09	0.41					20
NCS DC 62124	Sulphoaluminate cement raw meal	5.09	22.29	1.34	1.07	33.05	1.21	7.07	0.14	0.06	28.21					20
NCS DC 62125a	Cement contain F											0.18	(0.37)			20
Number	Name	Chemical Composition(Percent)						Unit Size (in g)								
		Loss	TCaCO ₃	CaO	Fe ₂ O ₃	F										
NCS DC 62126	Black raw meal CaCO ₃ titrmetric value	37.46	70.9	38.89	2.74	0.15										20
Number	Name	Chemical Composition(Percent)			Unit Size (in g)											
		Remain after through 80 ymsieve	Blaine	Density												
NCS DC 62127	Portland Cement Fineness and Blaine Std		2.03%	354.7m ³ /kg	3.16g/cm ³	200										
Number	Name	Chemical Composition(Percent)										Unit Size (in g)				
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	SO ₃	K ₂ O	Na ₂ O	L.O.I					
NCS DC 62128C1	Series of Cement for XRF Analysis	25.49	6.96	3.31	0.43	51.18	3.94	3.24	1.07	0.42	3.61					20
NCS DC 62128C2	Series of Cement for XRF Analysis	24.1	6.93	3.2	0.42	53.59	3.7	3.18	1.06	0.4	3.25					20
NCS DC 62128C3	Series of Cement for XRF Analysis	23.78	6.56	3.19	0.41	54.14	3.47	3.13	1	0.39	3.82					20
NCS DC 62128C4	Series of Cement for XRF Analysis	23.3	6.33	3.05	0.4	55.5	3.28	2.92	0.94	0.34	3.58					20
NCS DC 62128C5	Series of Cement for XRF Analysis	23.13	6.1	3	0.39	57.08	3.13	2.82	0.89	0.29	3.05					20
NCS DC 62128C6	Series of Cement for XRF Analysis	22.8	5.82	2.91	0.38	58.14	2.93	2.66	0.85	0.26	2.97					20
NCS DC 62128C7	Series of Cement for XRF Analysis	22.56	5.55	2.83	0.37	59.44	2.66	2.44	0.79	0.23	2.86					20
NCS DC 62128C8	Series of Cement for XRF Analysis	22.27	5.32	2.74	0.36	60.63	2.47	2.37	0.75	0.19	2.8					20
NCS DC 62128C9	Series of Cement for XRF Analysis	22.02	5.09	2.69	0.34	61.5	2.26	2.16	0.68	0.17	2.87					20
NCS DC 62128C10	Series of Cement for XRF Analysis	21.81	4.78	2.58	0.33	62.65	2.07	2.05	0.62	0.13	2.84					20
NCS DC 62128C11	Series of Cement for XRF Analysis	21.45	4.46	2.49	0.32	64.01	1.85	1.83	0.57	0.1	2.65					20
Number	Name	Chemical Composition(Percent)													TFe (Fe ₂ O ₃)	Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Mg	CaO	TiO ₂	MnO	Na ₂ O	K ₂ O	S	Li	Rb	Ba			
NCS DC 70001	Copper Ore	9.27	1.73	3.91	9.61	0.079	0.60	0.044	0.071	0.72					55.58	50
NCS DC 70002	Copper Ore	53.26	15.18	1.30	4.95	0.50	0.12	3.21	2.71	0.14			(0.08)	12.25	50	
NCS DC 70003	Lead Ore	43.63	12.88	1.62	19.51	0.53	1.40	1.61	1.42	0.86				4.37	50	
NCS DC 70004	Lead Ore	30.51	8.95	2.06	34.56	0.44	1.53	0.066	0.82	0.38				3.79	50	
NCS DC 70005	Zinc Ore	82.95	2.80	0.082	1.91	0.017	0.026	0.56	0.99	2.87				3.50	50	
NCS DC 70006	Molybdenum Ore	34.10	3.46	0.86	31.44	0.13	1.40	0.075	0.046	1.64				21.34	50	
NCS DC 70007	Molybdenum Ore	46.67	7.27	1.83	23.03	0.36	1.49	0.77	0.82	0.48				14.66	50	
NCS DC 70008	Tungsten Ore	13.27	8.24	1.45	37.73	0.079	0.97	0.16	1.94	3.12	(0.02)	(0.08)		7.79	50	
NCS DC 70009	Tungsten Ore	71.27	11.15	0.14	4.17	0.044	0.090	0.12	1.58	1.90	(0.03)	(0.05)		5.60	50	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)				
		Cu	Pb	Zn	As	Sn	W	Mo	F							
NCS DC 70001	Copper Ore	1.15		0.059					0.079							
NCS DC 70002	Copper Ore	0.19		0.013				0.080								
NCS DC 70003	Lead Ore	0.20	4.17	0.062				0.27								
NCS DC 70004	Lead Ore	0.035	0.61	0.092				0.23								
NCS DC 70005	Zinc Ore	0.71	0.25	2.75				1.20								
NCS DC 70006	Molybdenum Ore						0.36	1.51	4.08							
NCS DC 70007	Molybdenum Ore			0.012			0.10	0.11	1.33							
NCS DC 70008	Tungsten Ore	0.079	0.26	0.29	0.18	0.14	0.015	9.91								
NCS DC 70009	Tungsten Ore	0.096		0.103		0.17	0.22	0.098	4.84							

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													
		Ag	As	Cu	Ga	Ge	Li	Pb	Sc	Zn	Cd	Sb	Ce	Dy	Eu
NCS DC 70001	Copper Ore	3.9	4.2		22.6	0.89	(9)	9.1	1.8		0.42	0.36	13.2	1.1	0.28
NCS DC 70002	Copper Ore	0.70	1.5		22.6	0.93	(15)	13.0	5.4		0.14	0.23	72.6	2.4	1.3
NCS DC 70003	Lead Ore	14.7	85.1		16.7	0.90	(19)		7.5		3.2	39.3	78.3	3.0	1.2
NCS DC 70004	Lead Ore	5.6	43.2		11.7	0.93	(18)		8.1		2.6	12.0	66.8	3.1	0.82
NCS DC 70005	Zinc Ore	13.5	12.4		8.0	1.4	(86)		0.33		29.3	1.1	2.3	0.47	0.06
NCS DC 70006	Molybdenum Ore	0.09	1.6	93.6	25.1	19.0	(3.2)	18.7	3.4	65.5	0.12	1.2	20.8	1.8	0.59
NCS DC 70007	Molybdenum Ore	0.12	1.0	48.6	23.1	12.4	(13)	26.1	8.4		0.09	0.26	60.3	5.8	1.5
NCS DC 70008	Tungsten Ore	8.3			17.8	2.5			1.8		26.1	5.1	10.0	0.46	0.15
NCS DC 70009	Tungsten Ore	1.8	69.9		16.5	11.2		81.2	5.4		0.94	3.1	60.3	20.7	0.17
		Chemical Composition(µg/g)													
		Gd	Ho	La	Lu	Nd	Sm	Tb	Tm	Yb	Er	Pr	Y	Co	
NCS DC 70001	Copper Ore	1.1	0.26	7.5	0.16	4.7	1.0	0.21	0.11	0.89	0.78	1.4	7.3	76.0	
NCS DC 70002	Copper Ore	3.6	0.48	40.3	0.20	29.4	5.1	0.48	0.18	1.2	1.3	8.1	11.8	16.9	
NCS DC 70003	Lead Ore	3.7	0.61	40.5	0.24	28.2	5.1	0.58	0.23	1.5	1.5	8.1	15.4	14.7	
NCS DC 70004	Lead Ore	3.6	0.65	31.2	0.25	23.4	4.6	0.60	0.26	1.7	1.6	6.2	16.2	15.7	
NCS DC 70005	Zinc Ore	0.31	0.13	1.3	0.08	0.92	0.36	0.10	0.05	0.42	0.28	0.30	4.5	8.7	
NCS DC 70006	Molybdenum Ore	1.9	0.36	7.1	0.16	11.3	2.1	0.34	0.14	1.0	1.0	3.0	11.4	11.8	
NCS DC 70007	Molybdenum Ore	5.8	1.2	37.4	0.41	29.8	6.4	0.98	0.44	2.8	3.2	7.4	34.2	13.5	
NCS DC 70008	Tungsten Ore	0.64	0.11	5.0	0.06	4.0	0.79	0.15	0.04	0.28	0.23	1.1	2.8	2.7	
NCS DC 70009	Tungsten Ore	14.8	4.5	23.7	2.4	32.9	12.5	3.3	2.2	14.9	13.1	7.9	128	3.7	
		Chemical Composition(µg/g)													
		Ni	Bi	Sn	W	Mo	In	Se	Te	Ti	Th	Cr	Rb	R _E	
NCS DC 70001	Copper Ore	9.6	1.5	11.1	4.1	1.4	1.4	5.1	0.62	0.06	0.90	(7)			
NCS DC 70002	Copper Ore	5.6	0.43	3.8	3.9	2.4	0.25	0.89	0.13	0.36	8.8	(10)	(94)		
NCS DC 70003	Lead Ore	27.7	15.6	3.0	17.6	1.6	0.12	1.7	3.9	0.43	10.2	(29)	(55)		
NCS DC 70004	Lead Ore	34.5	12.5	2.9	30.6	1.3	0.09	0.81	1.2	1.0	10.5	(41)	(74)		
NCS DC 70005	Zinc Ore	5.5	56.4	6.1	3.4	2.8	0.23	2.3	0.17	0.49	(1.1)	(62)	(73)		
NCS DC 70006	Molybdenum Ore	17.8	2.2	86.7			2.9	2.1	0.40	0.06	2.3	(24)		(0.35)	
NCS DC 70007	Molybdenum Ore	20.9	1.0	33.2			1.3	0.27	0.14	0.21	9.7	(35)		(0.12)	
NCS DC 70008	Tungsten Ore	4.1	110			4.2	8.7	0.39	0.66	5.0	2.2	(6.5)		(0.12)	
NCS DC 70009	Tungsten Ore	2.8	680				1.3	0.96	2.9	1.8	28.3	(30)		(0.08)	
		Chemical Composition(µg/g)													
		Cs													
NCS DC 70002	Copper Ore	(10)													
NCS DC 70003	Lead Ore	(6)													
NCS DC 70004	Lead Ore	(2.3)													
NCS DC 70008	Tungsten Ore	(36)													
NCS DC 70009	Tungsten Ore	(41)													

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)											Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	MgO	SO ₃	K ₂ O	Na ₂ O	L.O.I		
NCS DC62004	Iron Tailings in Cement Industry	19.69	4.44	16.95	1.01	41.3	8.7	0.28	0.2	0.21	3.97	20	
NCS DC62005	Sandstone in Cement Industry	78.07	5.14	4.74	0.28	4.51	0.69	0.03	1.02	0.25	3.46	20	
NCS DC62006	Water-soluble Chromium(VI) content of Cement											450	
NCS DC62007	Sand in Cement Industry	98.13	0.43	1.02	(0.02)	(0.09)	(0.06)	(0.03)	(0.09)	(0.03)		20	
NCS DC62008	Desulfurization Gypsum	11.35	3.75	1.08	0.22	29.46	5.06	26.96	0.64	0.56	19.59	20	
NCS DC62009	Phosphorus Gypsum	13.3	0.42	0.12		27.94	0.02	39.01	0.11	0.06	18.69	20	
NCS DC62010	Granulated electric furnace Phosphorous slag	39.47	3.85	0.95	0.33	47.03	0.72	1.02	0.44	0.08	0.07	20	
NCS DC62011	Silica fume	91.85	0.93	0.61	0.02	0.83	1.07	0.53	1.43	0.66	1.85	15	
NCS DC62012	Quicklime	6.1	1.1	0.21	0.05	82.5	0.22	0.09	0.07	0.06	9.23	10	
NCS DC62013	Quicklime	3.83	0.93	0.21	0.04	86.65	0.21	0.13	0.06	0.06	7.39	10	
		Cr ⁶⁺ (mg/kg)	Adhered water	Crystallized water	SO ₂	Cl	F	P ₂ O ₅	Ss	F			
NCS DC62004	Iron Tailings in Cement Industry												
NCS DC62005	Sandstone in Cement Industry												
NCS DC62006	Water-soluble Chromium(VI) content of Cement	5.33											
NCS DC62007	Sand in Cement Industry												
NCS DC62008	Desulfurization Gypsum			0.2	10.5	0.61	0.059	0.1	0.18				
NCS DC62009	Phosphorus Gypsum			0.12	17.3		0.002		0.99	0.1	-0.09		
NCS DC62010	Granulated electric furnace Phosphorous slag								3.68				
			Water soluble P ₂ O ₅	Water soluble K ₂ O	Water soluble Na ₂ O	Water soluble F	pH	Effective CaO					
NCS DC62009	Phosphorus Gypsum		-0.393	-0.034	-0.038	-0.044	-4.6						
NCS DC62012	Quicklime							74.33					
NCS DC62013	Quicklime							80.24					

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Sb	S	Cu	Pb	Ag	As	Ga	Li	Cd	Ce	Dy	Eu	Ni	
NCSDC 70013	Antimony Ore	1.81	1.02	0.012	0.037										50
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ag	As	Cu	Ga	Li	Cd	Ce	Dy	Eu	Bi	Ni	Co	Sn	
NCSDC 70013	Antimony Ore	7.3	25.3	51.3	9.1	22.8	2.6	59.7	3.7	0.88	(0.26)	3.2	2.2	3.0	
NCSDC 70013	Antimony Ore	Nb													
		5.4													
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ag	As	Au*	B	Ba	Be	Bi	Br	Cd	Cl	Co	Cr	Cs	
NCS DC 70316	Rock	0.07	13.7	1.8	56.1	476	2.43	0.30	1.9	0.10	56.7	14.7	139	13.7	60
NCS DC 70317	Rock	0.32	37.3	6.2	30.0	369	2.67	1.22	0.9	0.57	69.1	9.8	39.8	17.2	60
NCS DC 70318	Rock	0.06	18.0	1.4	30.6	437	3.32	0.49	0.9	0.10	207	6.7	47.6	20.2	60
NCS DC 70319	Rock	0.21	19.6	1.2	66.2	470	2.31	0.80	1.4	0.19	244	7.6	22.6	15.0	60
NCS DC 70320	Rock	0.14	12.3	1.1	41.5	483	2.56	0.70	1.1	0.17	152	7.3	24.4	13.0	60
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Cu	F	Ga	Ge	Hf	Hg	Li	Mn	Mo	Nb	Ni	P	Pb	
NCS DC 70316	Rock	23.1	440	18.5	1.22	8.8	0.043	41.9	668	0.83	15.3	75.3	571	24.0	
NCS DC 70317	Rock	247	424	14.4	1.19	5.7	0.034	29.7	614	6.6	12.0	20.8	389	127	
NCS DC 70318	Rock	16.2	456	16.3	1.33	6.7	0.030	36.6	422	0.59	14.7	16.9	420	35.8	
NCS DC 70319	Rock	151	459	15.8	1.13	9.5	0.028	26.1	527	7.0	16.1	9.5	484	46.8	
NCS DC 70320	Rock	49.0	505	16.9	1.12	5.5	0.012	25.6	451	2.7	10.5	11.1	564	45.4	
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Pb	Sc	Sb	Se	Sn	Sr	Ta	Te	Th	Ti(%)	Tl	U	V	
NCS DC 70316	Rock	117	11.7	1.10	0.16	3.2	113	1.3	0.05	15.5	0.451	0.67	2.5	87.7	
NCS DC 70317	Rock	141	6.5	4.44	0.19	3.3	185	1.1	0.21	17.5	0.217	0.96	3.4	45.7	
NCS DC 70318	Rock	180	7.3	0.84	0.05	3.8	165	1.8	(0.03)	25.1	0.253	1.0	4.8	52.5	
NCS DC 70319	Rock	154	6.2	2.70	0.18	2.7	256	1.8	0.10	25.5	0.344	1.1	4.8	74.7	
NCS DC 70320	Rock	136	6.0	1.27	0.11	2.0	404	1.2	0.07	16.7	0.274	0.91	3.6	59.4	
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		W	Zn	Zr	I	In	Pd*	Pt*	S	La	Ce	Pr	Nd	Sm	
NCS DC 70316	Rock	2.3	80.9	299	(0.7)	(0.06)	(0.6)	(0.4)	(157)	48.2	93.4	10.9	41.9	8.11	
NCS DC 70317	Rock	9.2	116	188	(0.4)	(0.07)	(0.3)	(0.4)	(117)	37.9	72.0	7.89	29.0	5.39	
NCS DC 70318	Rock	4.1	54.1	225	(0.3)	(0.04)	(0.4)	(0.3)	(48)	47.8	89.6	9.78	35.8	6.62	
NCS DC 70319	Rock	9.3	62.9	299	(0.3)	(0.04)	(0.3)	(0.3)	(400)	42.6	78.1	8.57	30.6	5.42	
NCS DC 70320	Rock	4.2	61.1	184	(0.3)	(0.04)	(0.3)	(0.3)	(183)	32.5	60.5	6.94	25.7	4.49	
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Eu	Gd	Tb	Dy	Ho	Er	Tm	Yo	Lu	Y	SiO ₂ *	Al ₂ O ₃ *	Fe ₂ O ₃ (T)*	
NCS DC 70316	Rock	1.58	7.11	1.08	6.10	1.20	3.54	0.54	3.47	0.52	32.7	68.50	14.42	4.81	
NCS DC 70317	Rock	0.96	4.90	0.76	4.24	0.83	2.47	0.38	2.46	0.36	23.0	64.22	10.84	3.07	
NCS DC 70318	Rock	1.07	5.83	0.91	4.92	0.97	2.90	0.46	2.83	0.44	26.5	73.37	12.73	3.19	
NCS DC 70319	Rock	0.97	4.57	0.70	3.91	0.79	2.39	0.38	2.55	0.39	21.6	71.23	13.22	4.11	
NCS DC 70320	Rock	0.96	3.74	0.54	2.94	0.58	1.64	0.25	1.63	0.25	15.3	70.36	13.95	3.20	
Number	Name	Chemical Composition(µg/g)							Unit Size (in g)						
		MgO*	CaO*	Na ₂ O*	K ₂ O*	TiO ₂ *	MnO*	P ₂ O ₅ *							
NCS DC 70316	Rock	1.74	0.53	1.66	2.66	0.753	0.087	0.134							
NCS DC 70317	Rock	0.87	8.19	1.74	2.86	0.366	0.079	0.090							
NCS DC 70318	Rock	1.07	1.32	2.09	3.56	0.422	0.055	0.097							
NCS DC 70319	Rock	0.70	1.40	2.72	3.65	0.589	0.069	0.111							
NCS DC 70320	Rock	0.93	2.40	3.26	3.18	0.461	0.059	0.129							

Value with * is in percent

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition($\mu\text{g/g}$)													Unit Size (in g)
		Ag	As	Au*	B	Ba	Be	Bi	Br	Cd	Cl	Co	Cr	Cs	
NCS DC 70321	Rock	0.06	14.3	0.4	19.7	875	3.60	0.33	0.8	0.07	82	4.4	16.5	16.2	60
NCS DC 70322	Rock	0.08	28.8	0.7	28.1	711	2.48	0.29	0.7	0.12	93	6.0	17.7	48.1	60
NCS DC 70323	Rock	0.10	54.6	2.9	134	475	3.88	0.48	1.3	0.08	71	13.2	59.0	42.5	60
NCS DC 70324	Rock	0.07	24.9	1.4	143	472	5.62	0.45	0.9	0.08	63	10.3	55.2	16.6	60
		Ou	F	Ga	Ge	Hf	Hg	Li	Mn	Mo	Nb	Ni	P	Pb	
NCS DC 70321	Rock	10.8	452	16.5	1.02	6.1	0.008	25.7	258	0.60	10.1	8.8	459	48.9	
NCS DC 70322	Rock	10.7	415	15.5	1.18	6.9	0.017	26.7	430	0.65	10.9	8.5	455	36.3	
NCS DC 70323	Rock	44.0	555	17.1	1.66	6.3	0.066	69.8	608	0.66	15.5	37.2	542	27.7	
NCS DC 70324	Rock	27.7	457	17.6	1.63	7.4	0.053	66.8	392	0.65	17.2	27.8	625	32.1	
		Pb	Sc	Sb	Se	Sn	Sr	Ta	Te	Tn	Ti(%)	Tl	U	V	
NCS DC 70321	Rock	229	3.9	0.67	0.04	2.1	340	1.0	(0.03)	317	0.170	1.42	5.1	31.5	
NCS DC 70322	Rock	170	5.5	2.34	0.05	2.0	250	1.1	(0.04)	19.9	0.249	1.26	3.5	50.6	
NCS DC 70323	Rock	110	10.5	10.4	0.39	4.6	327	1.2	0.15	15.6	0.339	0.66	2.1	85.0	
NCS DC 70324	Rock	131	9.3	1.55	0.33	6.4	157	1.4	0.07	14.9	0.364	0.69	2.3	77.3	
		W	Zn	Zr	l	In	Pd*	Pt*	S	La	Ce	Pr	Nd	Sm	
NCS DC 70321	Rock	2.5	39.7	210	(0.23)	(0.03)	(0.3)	(0.2)	(57)	63.2	109	11.2	37	5.69	
NCS DC 70322	Rock	3.1	50.8	243	(0.22)	(0.042)	(0.3)	(0.4)	(59)	41.6	77.6	8.61	30.2	5.26	
NCS DC 70323	Rock	6.5	77.1	210	(0.5)	(0.07)	(0.8)	(0.6)	(528)	42.6	90.1	10.1	36.3	7.19	
NCS DC 70324	Rock	2.6	76.4	247	(0.5)	(0.06)	(7)	(0.4)	(160)	40.0	84.4	9.42	34.8	6.69	
		Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	La	Y	SiO ₂ *	Al ₂ O ₃ *	Fe ₂ O ₃ (T)*	
NCS DC 70321	Rock	0.98	4.40	0.59	2.95	0.58	1.62	0.25	1.54	0.24	15.5	73.59	13.41	1.71	
NCS DC 70322	Rock	1.05	4.43	0.64	3.49	0.69	1.99	0.32	1.96	0.30	18.6	73.67	12.57	2.85	
NCS DC 70323	Rock	1.40	6.58	1.01	5.56	1.06	2.98	0.44	2.67	0.38	29.5	60.95	11.89	5.47	
NCS DC 70324	Rock	1.29	6.05	0.93	5.10	0.99	2.75	0.41	2.57	0.37	25.9	70.16	12.79	4.82	
		MgO*	CaO*	Na ₂ O*	K ₂ O*	TiO ₂ *	MnO*	P ₂ O ₅ *							
NCS DC 70321	Rock	0.49	1.53	2.69	4.33	0.290	0.034	0.105							
NCS DC 70322	Rock	0.62	1.38	2.50	3.87	0.421	0.056	0.104							
NCS DC 70323	Rock	0.78	7.77	1.09	2.01	0.558	0.078	0.124							
NCS DC 70324	Rock	0.62	2.29	1.48	2.67	0.616	0.051	0.142							

Value with * is in percent

Section 4 Mineral & Geology(Powder)

Number	Elements ^(10⁻⁶)											Unit Size (in g)
	Ag	As	Bi	Cd	Co	Cu	Ga	Ge	In	Mo		
DC70325	103±6	0.111*±0.007*	71.4±2.8	0.021*±0.001*	79.5±3.8	3.40*±0.07*	11.68±0.96	1.41Δ 1.05-1.5	5.60±0.42	54.8±3.0	50	
DC70326	8.77±0.96	0.050*±0.007*	5.67±0.48	2.18±0.22	0.140*±0.007*	1.25*±0.05*	6.03±0.72	1.02±0.12	0.35±0.03	12.4±1.2	50	
DC70327	125±8	0.055*±0.007*	1.78*±0.11*	44.5±4.4	18.1±0.8	0.211*±0.014*	15.32±0.72	2.76±0.26	6.11±0.40	0.361*±0.019*	50	
DC70328	43.2±2.6	0.92*±0.05*	0.033*±0.003*	31.0±3.2	2.62±0.22	0.229*±0.011*	13.2±1.1	1.22±0.08	36.7±3.2	75±4	50	
	Ni	Pb	Sb	Sc	Se	Sn	Te	Th	Tl	U		
DC70325	23.8±1.2	2.96*±0.07*	0.014*±0.002*	3.82±0.34	29.6±1.8	15.4±0.7	7.01±0.39	4.96±0.46	1.84±0.16	3.18±0.20		
DC70326	5.30*±0.19*	(78)	35.7±3.4	9.08±0.62	59.5±5.2	2.49±0.38	4.27±0.36	1.31±0.17	0.92±0.11	0.32±0.04		
DC70327	0.065*±0.004*	0.68*±0.05*	34.5±1.4	17.8±1.1	45.6±1.7	0.056*±0.008*	82.9±4.6	18.86±0.96	10.0±1.2	68.5±3.6		
DC70328	10.2±1.1	2.08*±0.04*	0.012*±0.001*	0.91±0.09	3.78±0.36	9.56*±0.40*	0.34±0.11	0.83±0.09	0.45±0.04	29.8±1.2		
	W	Zn*	Zr	Re	La	Ce	Pr	Nd	Sm	Eu		
DC70325	15.7±1.6	3.47±0.06	96±4		15.74±0.96	30.8±2.6	3.42±0.17	13.14±0.72	2.49±0.19	0.58±0.07		
DC70326	7.7±1.1	0.023±0.002	42.2±3.4		5.93±0.42	12.9±1.3	1.49±0.12	6.4±0.7	1.34±0.11	0.34±0.03		
DC70327	7.96*±0.32*	0.248±0.008	101±6	0.35±0.03	29.8±2.0	(58.1)	8.58±0.38	34.1±1.8	9.26±0.54	0.79±0.08		
DC70328	0.032*±0.007*	0.640±0.024	50±5		10.4±0.8	16.9±1.1	1.84±0.13	5.9±0.5	1.10±0.09	0.14±0.01		
	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Y			
DC70325	2.20±0.14	0.33±0.03	1.78±0.12	0.35±0.03	1.01±0.06	0.15±0.02	0.98±0.06	0.15±0.02	9.26±0.42			
DC70326	1.20±0.09	0.20±0.02	1.14±0.09	0.23±0.02	0.61±0.05	0.09±0.01	0.54±0.05	0.09±0.01	5.75±0.46			
DC70327	7.44±0.72	1.55±0.13	10.3±0.5	2.06±0.14	6.53±0.34	1.14±0.06	9.28±0.60	1.36±0.16	66.3±4.6			
DC70328	0.96±0.13	0.14±0.02	0.70±0.05	0.13±0.01	0.39±0.03	0.065±0.007	0.44±0.03	0.073±0.008	3.60±0.34			
Main content ^(10⁻²)												
	SiO ₂	Al ₂ O ₃	TFe ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂	MnO	P ₂ O ₅		
DC70325	38.15±0.98	5.78±0.16	20.10±0.42	1.12±0.05	5.44±0.26	0.648±0.022	1.12±0.05	0.263±0.014	0.31±0.02	0.055±0.008		
DC70326	27.9±1.8	4.03±0.28	30.0±1.7	9.67±0.64	3.49±0.24	0.485±0.032	0.320±0.024	0.327±0.024	0.070±0.009	0.067Δ 0.055-0.096		
DC70327	48.2±1.7	8.43±0.34	8.44±0.36	1.06±0.05	9.18±0.40	0.96±0.04	1.85±0.07	0.222±0.016	1.20±0.06	0.153±0.014		
DC70328	0.98±0.06	0.45±0.04	68.7±2.6	0.35±0.02	1.69±0.13	0.023±0.007	0.017±0.003	0.046±0.007	0.47±0.04	0.052±0.005		
	F	S										
DC70325	0.074±0.003	13.99±0.32										
DC70326	0.021±0.003	17.36±0.60										
DC70327	2.37±0.14	2.40±0.11										
DC70328	0.036±0.004	4.12±0.12										

Value with * is in percent

Section 4 Mineral & Geology(Powder)

Number	Elements ⁽¹⁰⁻⁶⁾											Unit Size (in g)			
	Ag	As	Bi	Cd	Co	Cu	Ga	Ge	In	Mo					
DC70329	0.67±0.08	15.22*±0.96*	12.86±0.94	2.18±0.22	2.01±0.28	162±11	1.45±0.17	0.39±0.06	2.37±0.28	18.2±1.8	50				
DC70330	94.6±4.6	0.056*±0.003*	3.10±0.38	0.012*±0.001*	17.69±0.94	0.044*±0.003*	30.7±1.9	15.35±0.75	0.77±0.09	0.012*±0.001*	50				
DC70331	7.01±0.66	55.0±3.6	27.2±1.8	2.02±0.36	33.2±1.7	0.29*±0.02*	15.4±0.9	1.82±0.11	1.29±0.32	9.09*±0.28*	50				
DC70332	2.61±0.38	0.212*±0.014*	5.56±0.58	1.45±0.13	26.7±1.7	52.3±2.6	7.10±0.64	2.23±0.16	0.038±0.008	10.3±1.8	50				
Elements ⁽¹⁰⁻⁶⁾															
	Ni	Pb	Sb	Sc	Se	Sn	Te	Th	Tl	U					
DC70329	10.0±0.6	0.015*±0.002*	0.050*±0.004*	1.02±0.14	45.3±4.4	0.051*±0.008*	0.51±0.07	0.52±0.06	8.7±1.0	3.02±0.32					
DC70330	16.8±1.4	7.90*±0.15*	0.011*±0.001*	4.85±0.36	1.96±0.34	16.7±0.7	0.34±0.05	4.53±0.62	0.97±0.07	2.99±0.34					
DC70331	51.1±3.2	(97.8)	2.97±0.58	9.24±0.52	7.55±0.38	12.12±0.58	1.09±0.46	5.11±0.60	1.37±0.16	3.20±0.30					
DC70332	17.4±2.6	(97)	8.55*±0.36*	4.38±0.28	94.5±8.2	2.04±0.22	0.44±0.19	3.27±0.54	0.50±0.05	1.23±0.13					
Elements ⁽¹⁰⁻⁶⁾															
	W	Zn*	Zr	Re	La	Ce	Pr	Nd	Sm	Eu					
DC70329	11.7±1.2	0.040±0.003	4.15±0.36		1.91±0.17	3.62±0.28	0.43±0.05	1.58±0.15	0.34±0.05	0.073±0.008					
DC70330	0.028*±0.002*	4.72±0.12	(79.8)		16.7±1.4	31.8±2.4	3.69±0.23	13.43±0.86	2.59±0.24	0.58±0.08					
DC70331	0.037*±0.007*	0.027±0.002	102±11	10.9±0.7	24.4±1.9	44.3±3.8	5.59±0.26	20.0±1.5	3.52±0.50	0.88±0.12					
DC70332	0.031*±0.003*	0.027±0.003	53.5±5.2		14.8±1.7	25.8±1.8	3.18±0.20	12.29±0.74	2.52±0.17	0.50±0.07					
Elements ⁽¹⁰⁻⁶⁾															
	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Y						
DC70329	0.29±0.04	0.042±0.008	0.20±0.02	0.035±0.004	0.12±0.03	0.017±0.003	0.10±0.02	0.019±0.004	1.09±0.11						
DC70330	2.28±0.18	0.33±0.03	1.86±0.10	0.37±0.03	1.08±0.04	0.16±0.02	1.08±0.08	0.17±0.02	10.09±0.46						
DC70331	3.13±0.28	0.46±0.05	2.37±0.28	0.48±0.04	1.37±0.13	0.20±0.03	1.35±0.09	0.21±0.03	13.73±0.98						
DC70332	2.13±0.19	0.36±0.03	2.21±0.18	0.45±0.04	1.30±0.11	0.20±0.02	1.27±0.11	0.20±0.03	12.3±1.0						
Main content ⁽¹⁰⁻²⁾															
	SiO ₂	Al ₂ O ₃	TFe ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂	MnO	P ₂ O ₅					
DC70329	2.30±0.16	0.44±0.08	3.87±0.26	12.20±0.82	23.9±1.6	0.022±0.003	0.049±0.005	0.020±0.005	0.027±0.002	0.025±0.003					
DC70330	43.2±1.2	7.04±0.26	13.17±0.32	1.20±0.06	6.24±0.22	1.11±0.04	1.83±0.07	0.276±0.022	0.170±0.008	0.077±0.004					
DC70331	52.7±1.8	11.05±0.38	6.43±0.28	2.04±0.09	3.85±0.18	2.14±0.09	2.28±0.10	0.41±0.04	0.110±0.008	0.169±0.028					
DC70332	65.4±3.6	4.94±0.30	2.22±0.14	2.17±0.15	4.24±0.26	0.089±0.009	1.55±0.11	0.180±0.017	0.112±0.010	0.070±0.006					
Elements ⁽¹⁰⁻⁶⁾															
	F	S													
DC70329	0.015±0.002	7.18±0.19													
DC70330	0.45±0.03	11.45±0.24													
DC70331	0.37±0.08	7.97±0.22													
DC70332	0.060±0.004	3.59±0.15													
Value with * is in percent															
Number	Name	Chemical Composition (Percent)													Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	CaO	TiO ₂	P ₂ O ₃	MnO	Na ₂ O	K ₂ O	H ₂ O	CO ₂	
NCS DC 71301	Rock	54.48	17.72	6.04	1.23	0.65	1.39	0.48	0.018	0.12	7.16	7.48	2.38	0.26	50
NCS DC 71302	Rock	63.06	16.1	4.51	0.19	0.84	2.47	0.8	0.36	0.089	3.06	5.17	1.79	1.03	50
NCS DC 71303	Rock	59.68	16.56	2.64	3.08	2.81	4.72	0.77	0.34	0.094	4.05	3.50	0.88	0.15	50
NCS DC 71304	Rock	35.69	14.14	9.90	13.36	5.25	9.86	7.69	0.028	0.193	2.11	0.15	1.09	0.12	50
NCS DC 71305	Rock	72.78	12.96	1.14	1.86	0.16	0.59	0.30	0.045	0.14	2.57	5.43	1.18	0.52	50
NCS DC 71306	Rock	0.62	0.10	0.04	0.15	21.8	30.02	0.015	0.006	0.010	(0.003)	0.038	(0.34)	46.77	50
Elements ⁽¹⁰⁻⁶⁾															
		S	Cl	F	C(T)										
NCS DC 71301	Rock	0.011	0.059	0.048	(0.093)										
NCS DC 71302	Rock	0.023	0.016	0.112	(0.29)										
NCS DC 71303	Rock	0.011	0.023	0.084	(0.057)										
NCS DC 71304	Rock	0.37	0.006	0.006	(0.039)										
NCS DC 71305	Rock	0.009	(0.002)	0.13	(0.15)										
NCS DC 71306	Rock		0.012	0.014	(12.88)										

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ta	Te	Th	Tl	U	Ag	As	W	B	Ba	Cu	Zr	Ga	
NCS DC 71301	Rock	1.96	0.012	79.3	0.76	14.6	(0.033)	6.27	1.24	31.8	251	11.8	0.154*	35.8	
NCS DC 71302	Rock	1.42	(0.007)	16.7	1.02	3.04	0.17	5.96	1.62	10.8	1053	9.1	335	19.8	
NCS DC 71303	Rock	0.62	0.011	10.9	0.39	1.40	0.066	0.4	0.19	3.92	0.190*	8.8	224	20.8	
NCS DC 71304	Rock	(0.56)	0.010	(0.28)	0.07	(0.086)	0.05	(0.21)	(0.10)	1.84	86.2	28.3	29	23.7	
NCS DC 71305	Rock	2.41	(0.0009)	(27.1)	0.83	4.83	0.08	0.7	1.10	3.5	506	10.9	403	20.5	
NCS DC 71306	Rock	(0.18)	(0.012)	0.11	(0.070)	0.16	0.04	0.23	0.11	20.5	44.3	30.2	3.0	(0.21)	
		Ge	Hg	Li	Pb	Sc	Sr	Zn	Br	Cd	Sb	Ce	Dy	Eu	V
NCS DC 71301	Rock	0.95	0.005	32.9	196	2.22	0.016*	112	1.21	0.07	0.15	242	4.70	2.35	179
NCS DC 71302	Rock	1.11	0.014	17.5	97.7	7.52	318	164	(0.55)	0.61	1.34	117	5.32	1.96	64.3
NCS DC 71303	Rock	1.00	0.035	16.2	19.8	10.3	1198	85.4	(0.34)	0.08	0.06	112	3.20	1.91	104
NCS DC 71304	Rock	1.06	(0.005)	1.94	(5.16)	22.5	612	118	(0.32)	0.09	(0.04)	4.2	1.11	0.74	768
NCS DC 71305	Rock	1.17	0.005	12.7	33.3	5.15	43.0	86.3	(0.25)	0.14	0.38	163	8.19	1.18	3.8
NCS DC 71306	Rock	0.15	(0.004)	2.30	(4.44)	0.098	27.0	11.7	0.84	0.07	(0.04)	3.58	0.19	0.05	(21)
		Gd	Ho	La	Lu	Nd	Sm	Tb	Tm	Yb	Er	Pr	Y	Be	
NCS DC 71301	Rock	7.0	0.96	14.9	0.43	65.1	9.7	1.02	0.46	2.56	2.48	22.5	24.7	17.2	
NCS DC 71302	Rock	6.54	1.10	62.5	0.49	47.2	8.63	0.99	0.5	3.15	2.93	13.2	28.0	3.64	
NCS DC 71303	Rock	5.09	0.60	60.5	0.24	48.1	7.74	0.68	0.26	1.56	1.57	13.2	15.5	2.11	
NCS DC 71304	Rock	1.31	0.20	1.71	0.06	4.10	1.22	0.20	0.09	0.36	0.47	0.84	4.9	(0.98)	
NCS DC 71305	Rock	9.47	1.64	82.7	0.67	64.5	11.7	1.51	0.73	4.51	4.31	18.4	42.5	4.09	
NCS DC 71306	Rock	0.18	0.04	1.34	0.019	1.39	0.25	0.05	(0.040)	0.09	0.09	(0.44)	(1.40)	(0.22)	
		Bi	Co	Cr	Cs	Hf	I	In	Mo	Nb	Ni	Pb	Se	Sn	
NCS DC 71301	Rock	0.37	4.59	3.6	2.05	34.0	0.14	0.15	0.26	66.9	1.75	130	0.05	6.50	
NCS DC 71302	Rock	0.09	7.9	7.7	7.16	7.5	0.07	0.11	0.95	20.8	12.6	183	0.03	3.12	
NCS DC 71303	Rock	0.05	15.6	37.6	0.97	5.2	(0.078)	0.08	0.47	10.6	24.4	70.1	0.03	1.44	
NCS DC 71304	Rock	0.04	93.0	14.5	(0.17)	0.65	0.08	0.12	(0.94)	9.3	69	(4.79)	0.26	0.89	
NCS DC 71305	Rock	0.06	2.40	7.3	3.34	10.8	(0.093)	0.09	2.46	34.3	64.5	213	0.040	3.35	
NCS DC 71306	Rock	0.03	3.88	2.6	0.07	(0.10)	0.23	(0.066)	(0.024)	(2.77)	241	(1.42)	0.08	0.53	
Number	Name	Chemical Composition (Percent)											Unit Size (in g)		
		Ag	Cd	Cu	Fe	S	Sb	Sn	Zn	Pb					
NCS DC 71307	Sulfied Mineral				46.08	52.72									5
NCS DC 71309	Sulfied Mineral	0.97				13.30	0.43	0.11		84.26					5
NCS DC 71310	Sulfied Mineral		0.15	0.10	2.14	32.33			62.51	0.099					5
		Chemical Composition (µg/g)													
		Ag	As	Bi	Cd	Co	Ga	Ge	In	Sb	Se	Sn	Te		
NCS DC 71307	Sulfied Mineral	0.59	(14.4)	2.9	0.71	(3.9)	0.44	(0.2)		1.1	5.8	(2.7)	0.95		
NCS DC 71309	Sulfied Mineral		5.3	1.4	16.5	(0.4)	(0.3)	1.47	0.29				(0.07)		
NCS DC 71310	Sulfied Mineral	5.0	(3.3)	6.1		491	251	6.0	21.0	249	(3.0)	(0.2)	(0.3)		
		Zn	Ti	Mn	Ni	Pb	Cu	Fe							
NCS DC 71307	Sulfied Mineral	219		28.9	34.0	(23.4)	431								
NCS DC 71309	Sulfied Mineral	533	0.65				62.4	127							
NCS DC 71310	Sulfied Mineral			169	43.2										

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		Al ₂ O ₃	CaO	FeO	K ₂ O	Na ₂ O	MgO	Mn	P ₂ O ₅	SiO ₂	Fe ₂ O ₃	TiO ₂	LOI	
NCS DC 71311	Rock	13.21	7.83	7.24	1.49	3.17	5.08	0.16	0.55	49.88	13.40	2.94	2.30	70
NCS DC 71312	Rock	3.73	12.64	3.71	0.49	(0.10)	17.56	0.09	0.30	35.88	6.53	0.71	20.73	70
NCS DC 71313	Rock	13.19	(0.10)	(0.04)	6.22	1.6	0.13	0.013	0.18	76.40	0.24	0.61	1.27	70
		CO ₂	Cl	F	H ₂ O ⁺	SO ₃	Ba							
NCS DC 71311	Rock	(0.11)	(0.04)	(0.07)	(2.44)	0.44								
NCS DC 71312	Rock	(16.78)	(0.04)	(0.11)	(4.47)	0.68	0.177							
NCS DC 71313	Rock	(0.05)		(0.03)	(1.02)	0.07								
		Chemical Composition(µg/g)												
Number	Name	Ag	As	B	Ba	Be	Bi	Cd	Ce	Co	Cr	Cs	Cu	
NCS DC 71311	Rock	0.33	5.1	17.0	614	1.5	0.39	0.39	78.1	37.5	109	1.7	82.6	
NCS DC 71312	Rock	(0.06)	3.5	(31.8)		1.3	(0.10)	0.46	12.7	40.0	776	5.2	26.2	
NCS DC 71313	Rock	(0.09)	3.1	(1.9)	728	1.3	(0.07)	0.15	(5.0)	(1.5)	4.8	1.8	4.2	
		Dy	Er	Eu	Ga	Gd	Ge	Hf	Hg	Ho	La	Li	Lu	
NCS DC 71311	Rock	5.5	2.6	3.5	21.2	7.2	1.5	9.2	0.017	1.2	38.1	20.8	0.34	
NCS DC 71312	Rock	2.6	1.2	1.6	7.1	4.7	0.89	4.9	0.010	0.49	69.8	75.7	0.16	
NCS DC 71313	Rock	0.20	0.12	(0.16)	13.5	0.22	1.48	(0.80)	(0.008)	(0.04)	(3.3)	14.4	0.03	
		Mo	Nb	Nd	Ni	Pb	Pr	Rb	Sb	Sc	Se	Sm	Sn	
NCS DC 71311	Rock	1.4	25.3	42.8	55.3	33.0	10.6	47.4	2.3	27.1	(0.19)	8.6	2.0	
NCS DC 71312	Rock	1.4	56.8	49.0	542	20.7	13.8	28.4	(0.22)	10.9	0.10	6.5	1.7	
NCS DC 71313	Rock	0.29	14.6	1.51	(1.6)	34.6	0.48	155	0.64	(2.85)	(0.015)	(0.24)	3.5	
		Sr	Ta	Tb	Th	Tm	U	V	W	Y	Yb	Zn	Zr	
NCS DC 71311	Rock	470	1.8	1.1	4.9	0.36	1.2	268	1.4	24.5	2.2	160	352	
NCS DC 71312	Rock	262	3.9	0.54	10.8	0.17	2.2	89.4	2.4	11.6	1.1	190	175	
NCS DC 71313	Rock	45.5	1.3	(0.04)	0.66	(0.02)	(0.75)	(44.5)	3.2	1.6	0.21	20.3	22.6	
		Chemical Composition(Percent)												
Number	Name	Na ₂ O ₃	K ₂ O	SiO ₂	ZnO	PbO	B ₂ O ₃	Al ₂ O ₃	MgO	TiO ₂	Fe ₂ O ₃	CaO		
NCS DC 71401	Zinc Oxide for EPMA			(0.04)	99.80			(0.10)						
NCS DC 71402	Potassium Niobat for EPMA	74.10	25.89											
NCS DC 71403	Lead Glass for EPMA		3.12	32.70		64.4								
NCS DC 71404	Boron Glass for EPMA			37.11			(11.21)	35.24	10.28	(0.42)	(0.44)	(0.77)		
NCS DC 71405	Kyanite for EPMA			37.06				62.70						
NCS DC 71406	Pyrite for EPMA													
NCS DC 71407	Olivine for EPMA			40.73					50.05			(0.04)		
NCS DC 71408	Feldspar for EPMA		4.51	65.97				19.88	(0.02)			0.89		
NCS DC 71409	Chromite for EPMA			(0.15)				(7.36)	12.38					
NCS DC 71410	Quartz for EPMA			99.98										
NCS DC 71411	Garnet for EPMA			36.31				20.05	0.08			10.21		
		Na ₂ O	Cr ₂ O ₃	MnO	Fe ₂ O ₃	TFe ₂ O ₃	FeO	Fe	S	P ₂ O ₅				
NCS DC 71404	Boron Glass for EPMA	(1.27)								(0.025)				
NCS DC 71405	Kyanite for EPMA													
NCS DC 71406	Pyrite for EPMA							53.19						
NCS DC 71407	Olivine for EPMA			(0.17)			8.67							
NCS DC 71408	Feldspar for EPMA	7.08												
NCS DC 71409	Chromite for EPMA		64.34	(0.10)	(1.68)		14.04							
NCS DC 71410	Quartz for EPMA						(0.02)							
NCS DC 71411	Garnet for EPMA			29.71		(15.25)	13.4							

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		Pb	S	Zn	Hg	BaO	SO ₃	PbO	CO ₂	WO ₃	CaO	Nb ₂ O ₃	Ta ₂ O ₃	
NCSDC 71412	Galena for EPMA	86.35	13.44											
NCSDC 71413	Sphalerite for EPMA		32.76	66.33										
NCSDC 71414	Cinnabar for EPMA		13.63		86.00									
NCSDC 71415	Barite for EPMA					65.56	34.28							
NCSDC 71416	Cerussite for EPMA							83.36	(16.82)					
NCSDC 71417	Scheelite for EPMA									80.45	19.39			
NCSDC 71418	Manganocolumbite for EPMA											54.74	25.92	
		FeO	MnO											
NCSDC 71418	Manganocolumbite for EPMA	6.65	12.47											
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		Cd	Te	Se	Ga	As	Zn	In	Sb	P				
NCS DC 71419	Cadmium Telluride for EPMA	46.87	53.39											
NCS DC 71420	Cadmium Selenide for EPMA	58.48		40.88										
NCS DC 71421	Cadmium Arsenide for EPMA				48.07	51.95								
NCS DC 71422	Zinc Selenide for EPMA			54.44			45.38							
NCS DC 71423	Indium Antimonide for EPMA							48.59	51.45					
NCS DC 71424	Indium Phosphide for EPMA							78.51		21.12				
NCS DC 71425	Indium Arsenide for EPMA					39.60		60.97						
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		P ₂ O ₅	Sc ₂ O ₃	La ₂ O ₃	Ce ₂ O ₃	Pr ₂ O ₃	Nd ₂ O ₃	Sm ₂ O ₃	Gd ₂ O ₃	Ho ₂ O ₃	Yb ₂ O ₃		Lu ₂ O ₃	
NCS DC 71426	Sc P 5014 for EPMA	85.6	16.42											
NCS DC 71427	La P 5014 for EPMA	67.70		31.25										
NCS DC 71428	Ce P 5014 for EPMA	68.32			31.7									
NCS DC 71429	Pr P 5014 for EPMA	68.67				31.83								
NCS DC 71430	Nd P 5014 for EPMA	68.12					32.2							
NCS DC 71431	Sm P 5014 for EPMA	68.87						32.07						
NCS DC 71432	Gd P 5014 for EPMA	66.6							33.71					
NCS DC 71433	Ho P 5014 for EPMA	65.37								34.52				
NCS DC 71434	Yb P 5014 for EPMA	64.1									35.88			
NCS DC 71435	Lu P 5014 for EPMA	63.44										36.08		

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition (Percent)												Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	FeO	MgO	CaO	Na ₂ O	K ₂ O	H ₂ O ⁺	S	P	Ti	
NCS DC 73001	Iron ore	20.17	60.86	3.57	(7.49)	1.68	2.84	0.28	0.53	(1.18)	0.051	0.045	0.085	50
NCS DC 73002	Iron ore	30.34	43.68	3.43	5.8	1.44	2.17	0.18	0.85	(2.08)	0.066	0.094	0.091	50
NCS DC 73003	Iron ore	40.51	33.93	2.27	(14.5)	2.22	2.00	0.16	0.27	(1.37)	0.95	0.032	0.067	50
NCS DC 73004	Iron ore	49.50	16.30	2.58	7.66	0.98	0.91	0.035	0.92	(2.1)	0.065	0.138	0.083	50
NCS DC 73005	Iron ore	56.60	11.48	0.99	20.05	3.62	1.36	0.058	0.071	(1.63)	2.44	0.017	0.043	50
NCS DC 73006	Iron ore	61.46	6.65	1.68	(0.35)	0.77	0.52	0.081	0.098	(0.046)	0.0067	0.019	1.12	50
NCS DC 73007	Iron ore	62.51	10.93	1.02	21.54	0.28	0.18	0.016	0.038	(0.41)	0.0058	0.11	0.059	50
NCS DC 73009	Iron ore	66.87	5.05	0.99	23.14	0.22	0.14	0.012	0.030	(0.44)	0.0055	(0.011)	0.059	50
		Mn	Cu											
NCS DC 73001	Iron ore	0.168	0.0028											
NCS DC 73002	Iron ore	0.200	0.0023											
NCS DC 73003	Iron ore	0.122	0.028											
NCS DC 73004	Iron ore	0.198	0.0014											
NCS DC 73005	Iron ore	0.076	0.068											
NCS DC 73006	Iron ore	0.072	0.0028											
NCS DC 73007	Iron ore	0.061	(0.0015)											
NCS DC 73009	Iron ore	0.071	0.0015											
Number	Name	Chemical Composition (Percent)											Unit Size (in g)	
		Cr ₂ O ₃	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	CaO	Na ₂ O	K ₂ O	H ₂ O ⁺	CO ₂		
NCS DC 73010	Chromite	17.59	20.30	11.86	10.52	(8.68)	28.12	0.44	(0.13)	0.046	(10.7)	(0.6)	50	
NCS DC 73011	Chromite	34.44	12.24	11.37	11.81	(8.5)	23.32	0.32	0.073	0.026	(6.4)	(0.46)	50	
NCS DC 73012	Chromite	46.56	5.06	11.60	15.34	(12.0)	17.92	0.46	0.018	(0.010)	2.5	(1.2)	50	
NCS DC 73013	Chromite	57.80	1.10	10.53	13.70	(8.3)	16.45	(0.13)	(0.016)	(0.004)	(0.59)	(0.14)	50	
		S	Ni	Co	P	Ti	Mn	V						
NCS DC 73010	Chromite	0.037	0.188	0.0124	0.0031	0.085	0.088	0.043						
NCS DC 73011	Chromite	0.024	0.175	0.14	0.0020	0.100	0.090	0.044						
NCS DC 73012	Chromite	0.076	0.134	0.016	(0.0013)	0.070	0.135	0.064						
NCS DC 73013	Chromite	(0.005)	0.16	0.016	(0.0012)	0.122	0.097	0.048						

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)										Unit Size (in g)
		Ag	As	B	Ba	Be	Bi	Br	Cd	Ce		
NCSDC 73014	Stream Sediment	0.14±0.01	14.3±0.9	53±7	455±9	2.2±0.1	0.51±0.03	0.8±0.2	0.34±0.02	47±2	70	
NCSDC 73015	Stream Sediment	0.050±0.007	3.6±0.4	48±6	600±20	3.6±0.4	0.48±0.03	0.61±0.13	0.093±0.009	24±2	70	
NCS DC73016a	Stream sediments	0.79±0.09	53±4	84±11	698±24	3.0±0.3	2.1±0.2	4.8±0.7	4.9±0.4	63±4		
NCSDC 73017	Stream Sediment	0.044±0.014	4.4±0.3	5.5±1.2	1054±17	1.6±0.1	0.33±0.04	1.0±0.2	0.095±0.010	32±2	70	
		Chemical Composition(µg/g)										
		Cl	Co	Cr	Cs	Cu	Dy	Er	Eu	F		
NCSDC 73014	Stream Sediment	53±5	10.2±0.4	61±4	5.8±0.3	132±5	4.1±0.3	2.5±0.2	1.20±0.06	550±21		
NCSDC 73015	Stream Sediment	33±3	4.4±0.2	21±33	7.2 ± 0.2	7.2±0.52	1.7±0.1	0.93±0.09	0.62±0.03	279±8		
NCS DC73016a	Stream sediments	78±11	9±1	34±4	6.1±0.5	32±2	5.0±0.4	3.0±0.4	1.0±0.2	450±41		
NCSDC 73017	Stream Sediment	(30)	12.5±0.9	8.4±1.2	1.5±0.2	3.9±0.6	1.3±0.1	0.8±0.1	0.54±0.05	131±20		
		Chemical Composition(µg/g)										
		Ga	Gd	Ge	Hf	Hg	Ho	I	In	La		
NCSDC 73014	Stream Sediment	14.6±0.6	4.1±0.2	1.87±0.14	3.8±0.8	0.018±0.006	0.83±0.08	0.47±0.08	0.14±0.01	24±1		
NCSDC 73015	Stream Sediment	12.4±0.5	1.7±0.1	1.64 ±0.14	2.1±0.4	(0.007)	0.33±0.02	0.27±0.08	0.018±0.004	13.9±1.0		
NCS DC73016a	Stream sediments	17±2	5.3±0.5	1.2±0.2	5.6±0.8	0.12±0.01	1.0±0.2	2.1±0.3	0.15±0.03	35±2		
NCSDC 73017	Stream Sediment	12.0±0.6	1.4±0.1	1.21±0.07	2.7±0.5	0.016±0.005	0.26±0.03	0.46±0.10	(0.014)	11.8±0.6		
		Chemical Composition(µg/g)										
		Li	Lu	Mn	Mo	N	Nb	Nd	Ni	P		
NCSDC 73014	Stream Sediment	20.7±2.0	0.42±0.04	0.142±0.004*	0.94±0.04	150	9.4 ± 07	22±1	18.9±0.7	568±17		
NCSDC 73015	Stream Sediment	40 ± 2	0.16±0.02	290±7	0.33±0.04	79	5.1±0.7	9.8±0.4	7.0±0.6	335±15		
NCS DC73016a	Stream sediments	24±1	0.50±0.06		1.4±0.2		12±2	30±1	16±1	0.108±0.006		
NCSDC 73017	Stream Sediment	8.1±0.8	0.14±0.03	0.122±0.004*	0.64±0.05	218±27	9.5±0.7	8.9±1.0	4.7±0.5	234±13		
		Chemical Composition(µg/g)										
		Pb	Pr	Rb	S	Sb	Sc	Se	Sm	Sn		
NCSDC 73014	Stream Sediment	210±6	5.9±0.4	96±4	432±60	1.18±0.07	11.4±0.3	0.47 ± 0.10	4.5±0.2	2.5±0.4		
NCSDC 73015	Stream Sediment	31±23	2.9±0.3	118±3	87±10	0.16±0.03	4.9±0.4	0.053±0.013	1.9±0.1	2.3±0.2		
NCS DC73016a	Stream sediments	267±9	8.0±0.7	138±7	692±80	2.0±0.2	7.1±0.6	0.36±0.04	5.8±0.3	11.5±1.0		
NCSDC 73017	Stream Sediment	22±1	2.5±0.4	81±2	66 ± 10	0.29±0.03	2.1 ± 0.2	0.072±0.009	1.6±0.1	1.0		
		Chemical Composition(µg/g)										
		Sr	Ta	Tb	Te	Th	Ti(%)	Tl	Tm	U		
NCS DC 73014	Stream Sediment	171±5	0.65±0.07	0.68±0.05	(0.05)	8.3±0.9	0.23±0.01	0.91±0.07	0.4±0.04	2.2±0.2		
NCSDC 73015	Stream Sediment	253±13	0.72±0.10	0.29±0.02	(0.02)	4.1±0.6	0.146±0.011	0.83±0.08	0.16±0.02	1.9±0.1		
NCS DC73016a	Stream sediments	148±5	1.1±0.2	0.84±0.07	-0.064	10.9±1.0		1.6±0.2	0.5±0.1	4.8±0.3		
NCSDC 73017	Stream Sediment	167±10	0.81±0.14	0.22±0.02	(0.03)	5.4±0.6	0.151±0.014	0.44±0.06	0.13±0.02	1.1±0.1		
		Chemical Composition(µg/g)										
		V	W	Y	Yb	Zn	Zr	Mn*	N*	Ti*		
NCSDC 73014	Stream Sediment	77±3	2.0±0.1	23±2	2.6±0.3	209±6	132±4					
NCSDC 73015	Stream Sediment	31±1	0.66±0.08	9.7±0.7	1.0±0.1	27±2	71±7					
NCS DC73016a	Stream sediments	48±5	3.6±0.5	30±2	3.2±0.4	962±42	187±7	0.17±0.01	0.25±0.02	0.249±0.010		
NCSDC 73017	Stream Sediment	28±2	0.58±0.06	7.0±0.6	0.83±0.04	19±2	100±11					
		Chemical Composition(%)										
		SiO ₂	Al ₂ O ₃	TFe ₂ O ₃	C _{org}	L.O.I.						
NCSDC 73014	Stream Sediment	69.40±0.29	11.06±0.13	7.00±0.10								
NCSDC 73015	Stream Sediment	74.33±0.23	11.65±0.13	1.79±0.05								
NCS DC73016a	Stream sediments	62.72±0.37	12.97±0.34	3.90±0.16	-3.82	10.66±0.54						
NCSDC 73017	Stream Sediment	77.42±0.22	11.44±0.13	1.86±0.05								
		Chemical Composition(%)										
		FeO	MgO	CaO	Na ₂ O	K ₂ O	H ₂ O+	CO ₂	Corg	TC		
NCSDC 73014	Stream Sediment	(1.83)	1.70±0.03	2.96±0.04	1.40±0.02	2.35±0.03	2.31±0.09	(0.76)	0.28±0.03	(0.48)		
NCSDC 73015	Stream Sediment	(0.57)	0.71±0.04	2.85±0.08	2.85±0.04	2.96±0.05	0.98±0.13	(1.34)	(0.08)	(0.46)		
NCS DC73016a	Stream sediments	-2.16	1.70±0.06	1.26±0.04	2.02±0.07	3.28±0.11	-3.71			4.29±0.17		
NCSDC 73017	Stream Sediment	(0.2)	0.18±0.03	0.85±0.06	2.53±0.04	3.89±0.06	(1)	(0.11)	0.20±0.02	(0.25)		

Note: value with * is in percent; value with ** is calculated value; value in () is for reference only. Value behind "±" is uncertainty

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ag	As	B	Ba	Be	Bi	Br	Cd	Ce	Cl	Co	Cr	Cs	
NCSDC73035	Rock	0.046	4.7	11.5	605	0.99	0.061		0.071	52.0	72.9	7.6	27.7	1.8	
NCSDC73036	Rock	0.069	0.49		649	1.37			0.092	62.9	71.0	21.1	96.7	(0.28)	
NCSDC73037	Rock	0.085	1.8	4.7	277	1.99	0.031		0.098	104	51.0	38.7	98.1	0.52	
NCSDC73038	Rock	0.086	0.84	(11)	49.2	0.28	0.030		0.082	12.2	244	149	(0.49*)	1.4	
NCSDC73039	Rock	0.18	10.1	31.3	118	1.10	0.27	(1.4)	3.2	23.7	48.4	4.9	185	2.2	
NCSDC73040	Rock	0.24	6.1		35.9	0.13	0.10		(0.035)	42.9		2.3	20.6	0.43	
		Chemical Composition(µg/g)													
		Cu	Dy	Er	Eu	F	Ga	Gd	Ge	Hf	Hg**	Ho	I	In	
NCSDC73035	Rock	4.9	4.9	3.0	1.5	278	10.6	5.4	0.51	3.3	9.9	1.06		0.025	
NCSDC73036	Rock	33.5	3.7	2.0	1.6	424	21.5	4.9	0.95	4.7		0.75		0.049	
NCSDC73037	Rock	240	8.9	4.3	3.3	801	25.0	10.3	1.27	9.7	(5)	1.66		0.104	
NCSDC73038	Rock	75.6	1.2	0.63	0.38	197	4.9	1.2	0.92	1.1	3.5	0.23		0.023	
NCSDC73039	Rock	40.9	2.5	1.6	0.43	544	6.8	2.2	0.78	2.9	220	0.54	0.37	0.032	
NCSDC73040	Rock	8.6	0.88	0.55	0.17	(80)	(1.6)	0.66		1.4	12.2	0.18	1.03	0.015	
		Chemical Composition(µg/g)													
		La	Li	Lu	Mn	Mo	N	Nb	Nd	Ni	P	Pb	Pr	Rb	
NCSDC73035	Rock	30.0	15.2	0.40	0.21	0.33		(6)	26.6	13.5 [▲] 12.8-15.5	252	12.3	6.6	68.2	
NCSDC73036	Rock	29.4	12.1	0.30	816	0.64		7.0	33.4	44.8	0.11	7.4	8.5 [▲] 12.8-15.5	19.3	
NCSDC73037	Rock	48.0	11.3	0.51	0.14	1.19		45.1	56.6	69.7	0.19	6.2	13.7	27.1	
NCSDC73038	Rock	5.8	5.9	0.10	0.14	0.19		5.5	6.4	1269	227	(3.3)	1.6	6.9	
NCSDC73039	Rock	13.2	12.6	0.28	141	71.2	0.22	6.9	11.4	77.4	661	10.2	3.1	32.0	
NCSDC73040	Rock	3.5	0.59	0.12	67	0.67			2.9	8.1	(50)	15.1	0.87		
		Chemical Composition(µg/g)													
		S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	Tl	
NCSDC73035	Rock	(690)	0.093	6.7	0.040	5.4	1.1	252	0.42 [▲] 0.37-0.66	0.84		3.7	0.17	0.43	
NCSDC73036	Rock	326 [▲] 314-414	0.080	16.7	0.094	6.1	1.5	818		0.71	(0.02)	0.58	0.40	0.10	
NCSDC73037	Rock	115	0.23	26.6	(0.15)	11.6	3.2	271	3.2	1.63		5.5	2.44	(0.06)	
NCSDC73038	Rock	514	0.13	10.6	0.20	132 [▲] 1.29-1.58	(0.9)	37.9		0.21	(0.04)	0.95	0.25	(0.05)	
NCSDC73039	Rock	0.73 [▲] 0.64-0.76*	2.01	5.4	29.7	2.3	1.6	156	0.48	0.39	(0.06)	4.1	0.13	1.80	
NCSDC73040	Rock	(76)	0.68	2.4	0.32	0.76	(1)			0.13		1.1	264	(0.05)	
		Chemical Composition(µg/g)													
		Tm	U	V	W	Y	Yb	Zn	Zr	SiO ₂ *	Al ₂ O ₃ *	TFe ₂ O ₃	FeO*	MgO*	
NCSDC73035	Rock	0.43	68.0	33.2	0.54	31.1	2.4	33.4	114	46.40	8.88	1.69 [▲] 1.66-2.02	(0.5)	0.88	
NCSDC73036	Rock	0.32	(0.25)	115	0.15	17.8	1.8	86.2	173	58.47	17.14	6.85	3.89	3.26	
NCSDC73037	Rock	0.58	1.56	389	0.54	37.5	3.4	142	365	47.95	12.68	13.76	6.16	5.11	
NCSDC73038	Rock	0.10	0.32	70.3	(0.17)	5.9	0.58	89.0	39.2	37.24	2.80	13.27	4.76	32.26	
NCSDC73039	Rock	0.28	12.5	614	0.70	16.9	1.7	46.2	108	71.51	5.21	1.79		2.62	
NCSDC73040	Rock	0.11	1.9	28.1	0.53	5.6	0.74	11.7	53.3	94.34	1.87	0.66		(0.05)	
		Chemical Composition(µg/g)													
		CaO*	Na ₂ O	K ₂ O	H ₂ O**	CO ₂	Corg*	TC*	LOI*						
NCSDC73035	Rock	20.13	1.19	2.27	(2.5)	15.03	(0.1)	4.25	17.48						
NCSDC73036	Rock	5.90	4.77	1.51			(0.1)	(0.15)	0.68						
NCSDC73037	Rock	7.58	3.61	1.19	2.79		(0.25)	(0.11)	2.55						
NCSDC73038	Rock	2.17		0.17	(8.6)	(1.3)	0.34	(0.42)	10.34						
NCSDC73039	Rock	4.11	0.70	0.78	(2)	5.25	4.82	5.97 [▲] 5.87-6.05	12.09						
NCSDC73040	Rock	(0.07)		(0.03)	(0.7)		1.56	1.67	2.56						

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ag**	As	B	Ba	Be	Bi	Br	Cd	Ce	Cl	Co	Cr	Cs	
NCSDC73041	Stream sediment	40	1.7	(3)	704	2.3	0.11	(0.8)	0.029	32	24	2.7	(3.7)	1.7	
NCSDC73043	Stream sediment	66	32.2	55.4	460	2.6	0.42	(1.3)	0.22	80	26	12.9	66	16.0	
NCSDC73045	Stream sediment	856	48.4	65.5	0.135	1.4	0.26		(32)	50	99	9.0	43.3	7.6	
		Chemical Composition(µg/g)													
		Cu	Dy	Er	Eu	F	Ga	Gd	Ge	Hf	Hg**	Ho	I	In	
NCSDC73041	Stream sediment	2.8	1.2	0.67	0.68	172	16.3	1.70	0.94	2.75	4.7	0.24	(0.21)	0.020	
NCSDC73043	Stream sediment	21	4.8	2.57	1.17	632	18.8	5.43	1.42	5.30	18.3	0.90	0.48	0.063	
NCSDC73045	Stream sediment	23.8	3.1	1.76	0.88	438	10.8 [▲] 10.4-14.3	3.43	1.31	5.98	111	0.61	0.34	0.036	
		Chemical Composition(µg/g)													
		La	Li	Lu	Mn	Mo	N	Nb	Nd	Ni	P	Pb	Pr	Rb	
NCSDC73041	Stream sediment	17.0	8.4	0.12	322	0.42	(130)	6.2	13.3	2.3	332	20.5	3.68	75.3	
NCSDC73043	Stream sediment	40.4	38.0	0.35	519	0.55	689	14.6	33.5	36.5	498	35.0	9.24	154	
NCSDC73045	Stream sediment	25.3	47.2	0.28	691	2.75	420	9.7	21.5	21.8	356	0.269	5.86	79.0	
		Chemical Composition(µg/g)													
		S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti*	Tl	
NCSDC73041	Stream sediment	(61)	0.13	1.99	0.038	2.14	1.21	413	0.48	0.25	(0.016)	6.30	0.128	0.47	
NCSDC73043	Stream sediment	122	2.52	12.7	0.146	6.25	3.46	78.0	1.18	0.86	0.040	16.6	0.368	0.90	
NCSDC73045	Stream sediment	0.552	1.22	6.87		3.92	2.01	0.343	0.78	0.56	0.032	8.39	0.265	6.18	
		Chemical Composition(µg/g)													
		Tm	U	V	W	Y	Yb	Zn	Zr	SiO ₂ *	Al ₂ O ₃ *	TFe ₂ O ₃	FeO*	MgO*	
NCSDC73041	Stream sediment	0.11	1.11	19.8 [▲] 16.8-20.6	0.28	8.14	0.69	25.0	87.6	72.20	14.86	1.46	0.27	0.22	
NCSDC73043	Stream sediment	0.37	1.71	88.9	2.18	26.6	2.49	101	180	63.48	14.10	5.16	2.35	1.73	
NCSDC73045	Stream sediment	0.28	2.09	62.3	1.19	16.8 [▲] 16.1-19.5	1.80	0.260	223	69.66	8.84	3.52	0.82	1.25	
		Chemical Composition(µg/g)													
		CaO*	Na ₂ O*	K ₂ O*	H ₂ O**	CO ₂ *	Corg*	TC*	LOI*						
NCSDC73041	Stream sediment	1.35	4.99	3.22	0.80		(0.09)	(0.12)	(0.98)						
NCSDC73043	Stream sediment	3.78	0.83	3.04	3.48	3.02	0.57	1.33	6.84						
NCSDC73045	Stream sediment	5.07	0.58	1.85	(2.7)	(3.9)	0.46	1.30	7.16						

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ag**	As	B	Ba	Be	Bi	Br	Cd	Ce	Cl	Co	Cr	Cs	
NCSDC73046	Stream sediment	83	3.5	8.2	311	1.8	0.06		(0.2)	98	32	57.9	0.109	1.3	
NCSDC73047	Stream sediment	90	14.8	61.9	337	2.0	0.41	6.3	4.3	79	36	19.6	144	7.2	
NCSDC73048	Stream sediment	67	24.9	74.5	318	1.6	0.30	1.6	0.23	59	41	11.3	43.1	5.7	
NCSDC73049	Stream sediment	89	33.9	80.1	456	6.4	3.98	6.4	0.38	85	56	12.8	70.0	21.4	
NCSDC73050	Stream sediment	149	3.5	10.4	926	4.6	1.06	3.7	0.60	138	55	12.7	36.5	6.5	
		Chemical Composition(µg/g)													
		Cu	Dy	Er	Eu	F	Ga	Gd	Ge	Hf	Hg**	Ho	I	In	
NCSDC73046	Stream sediment	186	6.6	3.25	2.77	558	20.6	7.99	1.38	6.69	12.2	1.21	0.31	0.086	
NCSDC73047	Stream sediment	39.9	4.6	2.64	1.00	856	15.0	4.59	1.34	7.09	148	0.91	4.31	0.060	
NCSDC73048	Stream sediment	14.6	3.7	2.14	0.85	581	10.7	3.92	1.17	7.35	86.2	0.72	1.36	0.039	
NCSDC73049	Stream sediment	25.7	8.6	4.74	0.84	663	17.4	7.69	1.42	10.5	266	1.58	3.95	0.093	
NCSDC73050	Stream sediment	22.3	9.7	5.52	1.72	616	28.4	9.85	1.79	12.4	63.1	1.88	2.95	0.130	
		Chemical Composition(µg/g)													
		La	Li	Lu	Mn	Mo	N	Nb	Nd	Ni	P	Pb	Pr	Rb	
NCSDC73046	Stream sediment	49.8	14.7	0.40	0.141	0.67	229 [▲] 222-283	35.3	47.8	349	0.118	(12)	12.2	30.0	
NCSDC73047	Stream sediment	34.2	41.2	0.42	0.111	10.0	0.247	17.2	28.3	60.4	620	29.0	7.70	84.0	
NCSDC73048	Stream sediment	29.5	19.9	0.34	486	0.68	318	12.1	24.5	19.2	224	24.7	6.69	82.2	
NCSDC73049	Stream sediment	40.0	92.9	0.86	638	4.88	0.136	18.4	38.5	28.1	410	35.7	10.3	204	
NCSDC73050	Stream sediment	71.8	43.6	0.84	0.144	2.59	0.142	35.3	56.8	16.0	787	85.0	15.8	264	
		Chemical Composition(µg/g)													
		S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti*	Tl	
NCSDC73046	Stream sediment	(69)	0.22	29.5	0.089	8.97	2.42	363	2.40	1.23	(0.03)	4.96	1.71	~0.15	
NCSDC73047	Stream sediment	363	1.90	11.1	8.75	5.17	3.08	84.3	1.25	0.76	0.059	12.0	0.452	0.87	
NCSDC73048	Stream sediment	84	2.27	7.10	0.159	4.45	2.41	17.9	0.96	0.65	0.030	9.81	0.308	0.52	
NCSDC73049	Stream sediment	207	1.18	11.4	0.652	8.65	9.39	19.3	4.55	1.35	0.046	25.9	0.313	1.33	
NCSDC73050	Stream sediment	229	0.31	12.0	0.261	10.8	5.19	138	3.18	1.63	0.076	27.5	0.461	1.55	
		Chemical Composition(µg/g)													
		Tm	U	V	W	Y	Yb	Zn	Zr	SiO ₂ *	Al ₂ O ₃ *	TFe ₂ O ₃	MgO*	CaO*	
NCSDC73046	Stream sediment	0.45	1.24	332	(0.5)	27.9	2.66	115	252	47.27	10.84	12.91	8.82	7.42	
NCSDC73047	Stream sediment	0.42	5.91	302	1.92	26.4	2.72	94.2	264	70.49	10.83	4.64	1.03	1.14	
NCSDC73048	Stream sediment	0.35	2.34	60.1	2.15	21.8	2.23	51.7	275	82.85	7.90	3.05	0.67	(0.13)	
NCSDC73049	Stream sediment	0.87	8.79	91.8	18.9	48.3	5.80	85.2	346	73.54	11.40	4.08	0.96	0.21	
NCSDC73050	Stream sediment	0.87	5.99	74.1	4.73	52.8	5.57	189	449	59.79	18.85	5.26	0.83	0.60	
		Chemical Composition(µg/g)													
		Na ₂ O*	K ₂ O*	FeO*	H ₂ O+*	CO ₂ *	Corg*	TC*	LOI*						
NCSDC73046	Stream sediment	1.62 [▲] 1.38-1.66	1.12	2.20	(5.6)		0.30	0.34	5.87						
NCSDC73047	Stream sediment	0.37	1.49	1.57	4.53	(0.3)	2.21	2.41	8.52						
NCSDC73048	Stream sediment	(0.08)	2.07	(0.33)	2.15		(0.17)	(0.21)	2.34						
NCSDC73049	Stream sediment	0.36	2.27	1.65	3.90		1.39	1.45	6.26						
NCSDC73050	Stream sediment	0.96	3.94	(1.5)	6.04		1.47	1.50	8.35						

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													Unit Size (in g)	
		Ag	As	B	Ba	Be	Bi	Br	Cd	Ce	Cl	Co	Cr	Cs		
NCS DC73054	Floodplain sediments	0.074	12.7	55	574	2.4	0.34	2.6	0.066	82	34	16.9	79	8.9		
NCS DC73055	Floodplain sediments	0.067	13.7	50	511	2.1	0.34	2.3	0.14	70	284	13.0	68	7.9		
NCS DC73056	Floodplain sediments	0.087	13.7	49	558	2.4	0.38 [▲] 0.38-0.40	11.6	0.16	74	906	15.6	76	8.6		
		Chemical Composition(µg/g)														
		Cu	Dy	Er	Eu	F	Ga	Gd	Ge	Hf	Hg	Ho	I	In		
NCS DC73054	Floodplain sediments	26	5.4	3.1	1.4	548	18.9	6.0	1.49	7.4	0.026	1.10	3.8	0.063		
NCS DC73055	Floodplain sediments	25	5.0	2.8	1.3	610	16.3	5.3	1.31	6.4	0.019	1.00	1.02	0.058		
NCS DC73056	Floodplain sediments	32	5.0	2.8	1.4	710	19.2	5.5	1.34	5.0	0.053	1.00	2.3	0.065		
		Chemical Composition(µg/g)														
		La	Li	Lu	Mn	Mo	N	Nb	Nd	Ni	P	Pb	Pr	Rb		
NCS DC73054	Floodplain sediments	40	40	0.48	841	0.39	418	16.7	36	37	287	26	9.2	108		
NCS DC73055	Floodplain sediments	38	39	0.44	664	0.72	464	14.0	33	32	657	22	8.4	100		
NCS DC73056	Floodplain sediments	40 [▲] 39-42	45	0.43	773	0.98	850	14.3	35	38	622	26	9.0	111		
		Chemical Composition(µg/g)														
		S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti*	Tl		
NCS DC73054	Floodplain sediments	77	1.08	13.3	0.11 [▲] 0.10-0.11	6.8	3.6	115	1.2	0.98	0.046	13.6	0.463	0.68		
NCS DC73055	Floodplain sediments	268	1.14	12.5	0.19	6.2	2.9	201	1.0	0.89	(0.043)	12.5	0.374	0.68		
NCS DC73056	Floodplain sediments	431	1.08	14.0	0.21	6.5	3.2	202	1.0	0.91	0.051	12.8	0.394	0.68		
		Chemical Composition(µg/g)														
		Tm	U	V	W	Y	Yb	Zn	Zr	SiO ₂ *	Al ₂ O ₃ *	TFe ₂ O ₃	FeO*	MgO*		
NCS DC73054	Floodplain sediments	0.49	2.3	97	2.0	29	3.2	64	270	67.33	14.49	5.52	(0.36)	1.34		
NCS DC73055	Floodplain sediments	0.45	2.4	83	1.8	26	2.9	69	220	59.68 [▲] 59.61-59.77	12.62	4.73	1.20	2.24		
NCS DC73056	Floodplain sediments	0.44	2.3	96	2.0	26	2.8	86	180	56.47	14.45	5.76	1.34	2.66		
		Chemical Composition(µg/g)														
		CaO*	Na ₂ O*	K ₂ O*	H ₂ O**	CO ₂	Corg*	TC*	LOI*							
NCS DC73054	Floodplain sediments	1.09	1.26	2.07	(5.2)		(0.3)	0.31	(5.6)							
NCS DC73055	Floodplain sediments	6.91	1.62	2.40	3.73	4.77	(0.4)	1.72	8.65							
NCS DC73056	Floodplain sediments	5.65	1.55	2.68	(4.7)	4.00	0.79	1.87	9.62							
		Chemical Composition(Percent)													Unit Size (in g)	
		SiO ₂	Al ₂ O ₃	FeO	MgO	CaO	Na ₂ O	K ₂ O	H ₂ O ⁺	CO ₂	(Fe ₂ Te ₂ O ₃)	F				
NCS DC 73304	Rock	90.36	3.52	(0.62)	0.082	0.30	0.061	0.65	(0.99)	(0.18)	3.22	0.0183			70	
NCS DC 73305	Rock	59.23	18.82	(1.38)	2.01	0.60	0.35	4.16	(5.6)	(0.077)	7.60	0.129			70	
		org-C	LOI	P	Ti											
NCS DC 73304	Rock	(0.04)	(1.10)	0.0970	0.158											
NCS DC 73305	Rock	(0.15)	(5.95)	0.0690	0.395											
		Chemical Composition(µg/g)														
		Ta	Te	Th	Ti	U	Ag	As	W	B	Ba	Cu	Zr	Ga	Ge	
NCS DC 73304	Rock	(0.42)	0.038	7.0	(0.36)	2.1	0.062	9.1	1.16	34	143	19.0	214	5.3	1.16	
NCS DC 73305	Rock	(1.0)	(0.022)	12.8	0.71	1.5	0.047	1.4	0.79	154	450	42	96	25.6	3.1	
		Hg	Li	Pb	Sc	Sr	Zn	Mn	Cd	Sb	Ce	Dy	Eu	V	Gd	
NCS DC 73304	Rock	(8.4)*	11.1	7.6	4.2	58	20	155	0.060	0.60	48	4.1	1.02	33.4	4.5	
NCS DC 73305	Rock	9.7*	44	8.7	18.5	90	55	173	(0.003)	0.17	109	5.1	1.7	87	6.7	
		Ho	La	Lu	Nd	Sm	Tb	Tm	Yb	Er	Pr	Y	Be	Bi	CO	
NCS DC 73304	Rock	0.75	21	0.30	21	1.1	0.79	0.32	1.92	2.0	5.4	21.5	0.97	(0.18)	6.4	
NCS DC 73305	Rock	0.98	62	0.41	48	2.0	1.02	0.43	2.6	2.7	13.6	26	3.0	0.23	21	
		Cr	Cs	Hf	In	Mo	Nb	Ni	Rb	Se	Cl					
NCS DC 73304	Rock	20	1.8	6.6	(0.026)	0.76	5.9	16.6	29	(0.098)	(42)					
NCS DC 73305	Rock	99	14	2.9	(0.082)	0.35	14.3	36.8	205	(0.084)	(40)					

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)										Unit Size (in g)
		Ag	As	B	Ba	Be	Bi	Br	Cd	Ce	Cl	
NCS DC 73319a	Soil	0.81±0.04	33±3	69±4	700±40	3.3±0.3	1.4±0.2	4.1±0.6	2.5±0.2	71±5	-87	70
NCS DC 73320a	Soil	0.072±0.010	18±1	27±4	1187±38	2.6±0.2	0.29±0.05	4.6±0.6	0.20±0.02	123±6	-51	70
NCS DC 73321a	Soil	0.075±0.009	6.2±0.5	21±2	1117±32	1.7±0.1	0.21±0.04	3.8±0.4	0.079±0.012	45±4	-73	70
NCS DC 73322a	Soil	0.059±0.007	9.6±0.6	88±9	312±15	2.4±0.2	1.8±0.2	2.8±0.4	0.11±0.02	99±7	-30	70
NCS DC 73323a	Soil	4.6±0.3	242±16	108±8	343±15	1.8±0.2	23±2	-1.5	0.16±0.03	85±5	-31	70
NCS DC 73324a	Soil	0.24±0.04	88±5	28±4	181±21	6.9±0.4	89±5	-1.1	-0.5	85±11	110±14	70
NCS DC 73325a	Soil	0.080±0.012	-4.2	-19	237±24	2.9±0.3	-0.37	6.4±0.8	-0.23	113±13	-54	70
NCS DC 73326a	Soil	0.067±0.006	13.2±1.4	51±5	492±17	2.0±0.2	0.31±0.04	3.7±0.4	0.14±0.02	68±5	68±6	70
		Chemical Composition(µg/g)										
		Co	Cr	Cs	Cu	Dy	Er	Eu	F	Ga	Gd	
NCS DC 73319a	Soil	10.3±0.6	44±3	7.2±0.5	42±5	6.0±0.5	3.8±0.4	0.89±0.08	513±21	18.1±1.4	5.5±0.4	
NCS DC 73320a	Soil	11.1±0.5	52±4	4.7±0.3	20±2	4.5±0.4	2.5±0.4	1.8±0.2	723±39	14.8±0.9	6.2±0.4	
NCS DC 73321a	Soil	6.9±0.6	35±3	3.2±0.2	13.4±1.1	2.8±0.3	1.7±0.2	0.8±0.2	354±31	15.7±0.8	3.1±0.3	
NCS DC 73322a	Soil	20±1	81±4	12.5±0.9	43±2	4.4±0.4	2.5±0.3	1.2±0.2	1127±72	23±1	5.5±0.3	
NCS DC 73323a	Soil	18±2	113±7	18±2	147±10	5.1±0.4	3.2±0.3	1.0±0.24	601±25	25±1	4.5±0.6	
NCS DC 73324a	Soil	20±2	86±8	9.4±0.8	358±18	5.4±0.5	3.7±0.5	0.39±0.07	1526±82	40±4	4.2±0.5	
NCS DC 73325a	Soil	93±4	379±24	2.9±0.6	84±7	5.7±0.5	2.4±0.3	3.0±0.5	341±39	39±2	8.3±0.6	
NCS DC 73326a	Soil	12.3±1.0	65±4	7.3±0.5	24±2	4.9±0.4	2.7±0.3	1.2±0.2	555±26	15.1±0.7	5.5±0.5	
		Chemical Composition(µg/g)										
		Ge	Hf	Hg	Ho	I	In	La	Li	Lu	Mn*	
NCS DC 73319a	Soil	1.3±0.2	6.5±0.5	0.31±0.03	1.3±0.2	2.0±0.2	0.12±0.02	39±2	28±2	0.57±0.06	0.131±0.006	
NCS DC 73320a	Soil	1.2±0.1	6.3±0.5	0.017±0.004	0.9±0.1	2.6±0.3	0.048±0.005	61±3	22±1	0.38±0.04	0.092±0.003	
NCS DC 73321a	Soil	1.2±0.1	7.1±0.7	0.116±0.005	0.58±0.06	2.5±0.3	0.033±0.004	21±3	18±1	0.28±0.04	0.033±0.001	
NCS DC 73322a	Soil	1.7±0.2	6.9±0.7	0.072±0.006	0.85±0.08	4.0±0.3	0.095±0.006	54±4	27±2	0.40±0.07	0.030±0.001	
NCS DC 73323a	Soil	2.3±0.3	8.3±1.0	0.7±0.1	1.1±0.2	2.8±0.3	1.4±0.2	35±3	51±3	0.49±0.04	0.051±0.002	
NCS DC 73324a	Soil	6.2±0.5	6.5±1.0	0.086±0.008	1.1±0.2	13.2±2.7	4.1±0.9	31±2	43±2	0.80±0.11	0.23±0.01	
NCS DC 73325a	Soil	1.5±0.2	8.9±1.1	0.058±0.008	1.0±0.2	19.0±2.2	0.11±0.01	56±6	23±2	0.30±0.04	0.19±0.01	
NCS DC 73326a	Soil	1.3±0.1	6.9±0.8	0.027±0.005	0.98±0.12	1.6±0.2	0.053±0.005	35±3	33±2	0.42±0.04	0.063±0.002	
		Chemical Composition(µg/g)										
		Mo	N*	Nb	Nd	Ni	P	Pb	Pr	Rb	S	
NCS DC 73319a	Soil	2.0±0.2	0.32±0.03	15.3±1.4	30.8±1.3	16.9±1.5	0.23±0.02*	339±12	8.5±0.7	137±9	726±94	
NCS DC 73320a	Soil	1.6±0.1	0.075±0.006	35±4	55±3	24±2	512±30	27±2	14.8±1.2	95±4	316±23	
NCS DC 73321a	Soil	0.5±0.1	0.085±0.004	10.6±1.0	19±2	15±1	0.042±0.002*	28±2	4.9±0.4	85±6	-146	
NCS DC 73322a	Soil	0.70±0.06	0.073±0.004	16.1±1.2	40±3	36±2	0.031±0.003*	37±3	11.2±0.9	152±5	130±19	
NCS DC 73323a	Soil	2.3±0.2	0.059±0.005	20±2	27±3	38±2	353±40	245±14	7.3±0.6	142±6	839±37	
NCS DC 73324a	Soil	169±10	0.021±0.003	38±3	20±2	75±6	0.024±0.004*	478±16	5.6±0.7	118±13	534±73	
NCS DC 73325a	Soil	3.2±0.3	0.13±0.02	80±4	47±5	217±8	0.21±0.02*	18.3±2.1	11.7±1.7	28±3	432±45	
NCS DC 73326a	Soil	0.76±0.06	0.06±0.004	13.1±1.2	31±2	30±2	0.068±0.003*	21±2	8.0±0.6	96±5	187±21	
		Chemical Composition(µg/g)										
		Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Te	Th	
NCS DC 73319a	Soil	2.4±0.3	8.3±0.3	-0.22	5.9±0.4	9.8±1.1	192±9	1.3±0.1	0.98±0.09	-0.06	13.1±0.9	
NCS DC 73320a	Soil	0.86±0.08	9.5±0.5	0.26±0.03	7.9±0.4	2.0±0.2	248±6	-0.86	0.89±0.07	-0.037	13.3±0.9	
NCS DC 73321a	Soil	0.69±0.06	5.6±0.4	0.12±0.03	3.5±0.2	2.6±0.2	325±12	1.2±0.2	0.50±0.04	-0.04	6.7±0.8	
NCS DC 73322a	Soil	1.4±0.2	15.9±0.6	0.31±0.04	6.8±0.5	5.6±0.6	58±2	1.4±0.2	0.84±0.07	-0.085	19±2	
NCS DC 73323a	Soil	14.9±1.3	16.9±1.2	0.75±0.12	4.5±0.3	7.2±0.8	39±3	1.6±0.3	0.80±0.07	6.6±1.3	17.2±1.7	
NCS DC 73324a	Soil	14±2	17±2	0.47±0.08	4.7±0.4	439±58	30±4	16±3	0.84±0.09	-0.5	35±6	
NCS DC 73325a	Soil	0.53±0.07	25±2	0.34±0.07	9.3±1.1	5.0±0.4	37±5	5.7±0.9	1.2±0.2	-0.06	10.5±1.4	
NCS DC 73326a	Soil	1.2±0.2	11.5±0.6	0.098±0.022	6.0±0.5	2.9±0.2	197±6	1.1±0.1	0.86±0.10	-0.034	12.2±0.9	

Data with * is in percent.

Section 4 Mineral & Geology(Powder)

		Chemical Composition($\mu\text{g/g}$)										
		Ti*	Tl	Tm	U	V	W	Y	Yb	Zn	Zr	
NCS DC 73319a	Soil	0.326 \pm 0.009	1.2 \pm 0.1	0.61 \pm 0.06	6.0 \pm 0.3	61 \pm 4	3.5 \pm 0.5	38 \pm 3	3.8 \pm 0.4	475 \pm 30	218 \pm 10	
NCS DC 73320a	Soil	0.28 \pm 0.02	0.63 \pm 0.06	0.38 \pm 0.03	1.9 \pm 0.2	65 \pm 5	1.9 \pm 0.3	25 \pm 2	2.5 \pm 0.3	58 \pm 3	219 \pm 13	
NCS DC 73321a	Soil	0.228 \pm 0.010	0.51 \pm 0.05	0.28 \pm 0.03	1.2 \pm 0.2	45 \pm 3	1.1 \pm 0.2	16 \pm 2	1.8 \pm 0.3	39 \pm 3	247 \pm 15	
NCS DC 73322a	Soil	0.46 \pm 0.02	1.0 \pm 0.1	0.4 \pm 0.1	3.0 \pm 0.3	125 \pm 6	2.9 \pm 0.3	23 \pm 2	2.6 \pm 0.3	92 \pm 3	234 \pm 5	
NCS DC 73323a	Soil	0.61 \pm 0.03	1.1 \pm 0.1	0.50 \pm 0.05	4.0 \pm 0.4	136 \pm 7	7.4 \pm 0.6	29 \pm 2	3.2 \pm 0.3	172 \pm 7	272 \pm 9	
NCS DC 73324a	Soil	0.434 \pm 0.019	3.6 \pm 0.4	0.70 \pm 0.09	28 \pm 2	108 \pm 5	132 \pm 13	33 \pm 4	5.2 \pm 0.6	1529 \pm 79	156 \pm 5	
NCS DC 73325a	Soil	2.06 \pm 0.10	0.30 \pm 0.04	0.33 \pm 0.06	2.6 \pm 0.2	240 \pm 11	2.3 \pm 0.4	25 \pm 3	2.0 \pm 0.3	187 \pm 13	370 \pm 20	
NCS DC 73326a	Soil	0.37 \pm 0.02	0.57 \pm 0.05	0.43 \pm 0.04	2.3 \pm 0.3	80 \pm 3	1.8 \pm 0.2	26 \pm 1	2.8 \pm 0.3	66 \pm 3	241 \pm 6	
		Chemical Composition(%)										
		SiO ₂	Al ₂ O ₃	TFe ₂ O ₃	FeO	CaO	MgO	Na ₂ O	K ₂ O	H ₂ O+	Corg.	
NCS DC 73319a	Soil	56.60 \pm 0.46	12.92 \pm 0.21	4.41 \pm 0.20	-2.25	2.78 \pm 0.11	1.17 \pm 0.04	1.65 \pm 0.07	2.85 \pm 0.08	-4.3	-6.8	
NCS DC 73320a	Soil	65.97 \pm 0.55	11.70 \pm 0.17	4.22 \pm 0.14	-0.78	4.00 \pm 0.14	1.40 \pm 0.03	2.67 \pm 0.06	3.03 \pm 0.08	2.85 \pm 0.22	0.71 \pm 0.05	
NCS DC 73321a	Soil	72.97 \pm 0.40	12.97 \pm 0.14	2.63 \pm 0.10	-0.55	0.84 \pm 0.03	0.61 \pm 0.02	2.54 \pm 0.07	2.91 \pm 0.06	2.66 \pm 0.17	0.65 \pm 0.06	
NCS DC 73322a	Soil	63.33 \pm 0.47	16.93 \pm 0.18	6.92 \pm 0.15	-0.43	-0.13	1.33 \pm 0.04	-0.1	3.00 \pm 0.07	6.39 \pm 0.36	0.42 \pm 0.04	
NCS DC 73323a	Soil	61.52 \pm 0.39	16.88 \pm 0.15	9.8 \pm 0.21	-0.19	-0.07	0.70 \pm 0.02	-0.1	2.14 \pm 0.06	7.02 \pm 0.37	-0.2	
NCS DC 73324a	Soil	45.35 \pm 0.33	26.63 \pm 0.14	12.39 \pm 0.17	-0.1	0.13 \pm 0.02	0.20 \pm 0.02	-0.14	0.44 \pm 0.02	12.9 \pm 0.48	-0.2	
NCS DC 73325a	Soil	33.73 \pm 0.35	27.39 \pm 0.50	18.03 \pm 0.15	-1.46	-0.2	0.31 \pm 0.02	-0.1	0.35 \pm 0.02	13.61 \pm 0.63	1.18 \pm 0.08	
NCS DC 73326a	Soil	60.12 \pm 0.30	11.81 \pm 0.17	4.37 \pm 0.14	1.23 \pm 0.09	7.59 \pm 0.14	2.00 \pm 0.04	1.71 \pm 0.06	2.30 \pm 0.05	3.47 \pm 0.13	0.50 \pm 0.05	
		Chemical Composition(%)										
		CO ₂	TC	L.O.I.								
NCS DC 73319a	Soil		7.87 \pm 0.26	15.82 \pm 0.64								
NCS DC 73320a	Soil	2.41 \pm 0.20	1.37 \pm 0.03	5.87 \pm 0.34								
NCS DC 73321a	Soil		0.69 \pm 0.05	3.72 \pm 0.27								
NCS DC 73322a	Soil		0.46 \pm 0.03	-6.97								
NCS DC 73323a	Soil		-0.2	7.22 \pm 0.25								
NCS DC 73324a	Soil		0.23 \pm 0.02	-13.22								
NCS DC 73325a	Soil		1.30 \pm 0.06	15.36 \pm 0.92								
NCS DC 73326a	Soil	5.34 \pm 0.21	1.91 \pm 0.07	8.98 \pm 0.32								

Data with * is in percent.

		Chemical Composition($\mu\text{g/g}$)													Unit Size	
Number	Name	Ag	As	B	Ba	Cu	Li	Pb	Sr	Zn	Cd	Sb	Ce	Zr	(in g)	
NCS DC 73327	Synthetic Silicate	(0.034)	2.0	2.1	24	2.0	15	2.5	5.0	3.0	0.022	0.28		2.2	70	
NCS DC 73328	Synthetic Silicate	0.064	5.0	5.1	54	5.0	18	5.5	8.0	6.0	0.052	0.58	2.0	5.2	70	
NCS DC 73329	Synthetic Silicate	0.11	10	10.0	104	10.0	23	10.5	13	11.0	0.10	1.1	5.0	10.2	70	
NCS DC 73330	Synthetic Silicate	0.21	20	20	204	20.0	33	20.5	23	21	0.20	2.1	10.0	20	70	
NCS DC 73331	Synthetic Silicate	0.51	50	50	504	50	63	50	53	51	0.50	5.1	20	50	70	
		La	Yb	Y	Co	Cr	Mo	Nb	Ni	Bi	Sn	V	W	Be		
NCS DC 73327	Synthetic Silicate	2.1	0.2	2.0	2.6	2.3	0.21	2.3	2.6	0.31	0.28	2.8	0.20	0.26		
NCS DC 73328	Synthetic Silicate	5.1	0.50	5.0	5.6	5.3	0.51	5.3	5.6	0.61	0.58	5.8	0.50	0.56		
NCS DC 73329	Synthetic Silicate	10	1.0	10	10.6	10.3	1.0	10.3	10.6	1.1	1.1	10.8	1.0	1.1		
NCS DC 73330	Synthetic Silicate	20	2.0	20	20.6	20.3	2.0	20.3	20.6	2.1	2.1	20.8	2.0	2.1		
NCS DC 73331	Synthetic Silicate	50	5.0	50	50.6	50	5.0	50	50.6	5.1	5.1	51	5.0	5.1		
		Mn	Ti													
NCS DC 73327	Synthetic Silicate	27	24													
NCS DC 73328	Synthetic Silicate	57	54													
NCS DC 73329	Synthetic Silicate	107	104													
NCS DC 73330	Synthetic Silicate	207	204													
NCS DC 73331	Synthetic Silicate	507	504													

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ag	As	B	Ba	Cu	Li	Pb	Sr	Zn	Cd	Sb	Ce	Zr	
NCS DC73332	Synthetic Silicate	1.0	100	100	1000	100	113	100	103	101	1.0	10	100	100	70
NCS DC73334	Synthetic Silicate	5.0	500	500	0.500*	500	513	500	500	500	5.0	50	500	500	70
NCS DC73335	Synthetic Silicate	10		1000	1.000*	1000	1010	1000	1000	1000	10	100	1000	1000	70
NCS DC73336	Synthetic Silicate	20				2000		2000	2000	2000	20	200			70
NCS DC73337	Synthetic Silicate	50				0.500*		0.500*	0.500*	0.500*	50	500			70
		La	Yb	Y	Bi	Sn	Be	Mo	W	Nb	Co	Ni	Cr	V	
NCS DC73332	Synthetic Silicate	100	10	100	10	10	10	10	10	100	101	101	100	101	
NCS DC73334	Synthetic Silicate	500	50	500	50	50	50	50	50	500	500	500	500	500	
NCS DC73335	Synthetic Silicate		100		100	100	100	100	100				1000	1000	
		Mn	Ti												
NCS DC73332	Synthetic Silicate	1000	1000												
NCS DC73334	Synthetic Silicate	0.500*	0.500*												
NCS DC73335	Synthetic Silicate	1.000*	1.000*												
NCS DC73336	Synthetic Silicate		2.000*												
* Chemical Composition:Percent															
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Ag	As	B	Ba	Cu	Ga	Li	Pb	Sr	Zn	Cd	Sb	Ce	
NCS DC73338	Synthetic Limestone	(0.03)	2.2	2.2	24	2.2	2.8	3.2	2.4	170	3.0	(0.023)	0.21	2.8	70
NCS DC73339	Synthetic Limestone	0.060	5.2	5.2	54	5.2	5.8	6.2	5.4	200	6.0	0.053	0.51	5.8	70
NCS DC73340	Synthetic Limestone	0.11	10.2	10	104	10.2	10.8	11.2	10.4	250	11	0.1	1.0	11	70
NCS DC73341	Synthetic Limestone	0.21	20	20	204	20	20.8	21	20.4	350	21	0.2	2.0	21	70
NCS DC73343	Synthetic Limestone	1.0	100	100	1000	100	101	101	100	1150	101	1	10	101	70
NCS DC73344	Synthetic Limestone	2.0	200	200	0.200*	200	200	200	200	0.215*	200	2	20	200	70
NCS DC73345	Synthetic Limestone	5.0	500	500	0.500*	500		500	500	0.515*	500	5	50	500	70
NCS DC73346	Synthetic Limestone	10				1000			1000		1000	10	100		70
		Zr	Ti	Mn											
NCS DC73338	Synthetic Limestone	4.0	31	37											
NCS DC73339	Synthetic Limestone	7.0	61	67											
NCS DC73340	Synthetic Limestone	12	111	117											
NCS DC73341	Synthetic Limestone	22	210	217											
NCS DC73343	Synthetic Limestone	102	1010	1020											
NCS DC73344	Synthetic Limestone	202	2010	2020											
NCS DC73345	Synthetic Limestone	500	0.500*	0.500*											
NCS DC73346	Synthetic Limestone			1.000*											
* Chemical Composition:Percent															

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition										Unit Size (in g)
		Ag(10 ⁻⁹)	Al(10 ⁻²)	As(10 ⁻⁶)	B(10 ⁻⁶)	Ba(10 ⁻⁶)	Be(10 ⁻⁹)	Bi(10 ⁻⁹)	Br(10 ⁻⁶)	Ca(10 ⁻²)	Cd(10 ⁻⁹)	
NCSDC 73347a	Human hair	(50)	(2)	(0.28)	2.9	11.4	110	21	(1.1)	0.145	0.07	6
NCSDC 73347a	Human hair	Ce(10 ⁻⁶) (0.35)	Cl(10 ⁻²) (0.018)	Co(10 ⁻⁶) 0.045	Cr(10 ⁻⁶) 0.41	Cs(10 ⁻⁶) (0.003)	Cu(10 ⁻⁶) 14.3	Dy(10 ⁻⁹) 20	Er(10 ⁻⁹) 14	Eu(10 ⁻⁹) 3.7	F(10 ⁻⁶) (11)	
NCSDC 73347a	Human hair	Fe(10 ⁻⁶) 36	Gd(10 ⁻⁹) 20	Ge(10 ⁻⁹)	Hf(10 ⁻⁶) (0.6)	Hg(10 ⁻⁹) 670	Ho(10 ⁻⁹) 4.6	I(10 ⁻⁶) 0.8	K(10 ⁻²) (0.002)	La(10 ⁻⁶) 0.16	Li(10 ⁻⁶) (1.6)	
NCSDC 73347a	Human hair	Lu(10 ⁻⁹) (2.8)	Mg(10 ⁻²) (0.014)	Mn(10 ⁻⁶) 2	Mo(10 ⁻⁶) 0.17	N(10 ⁻²) 13.9	Na(10 ⁻²) 0.0089	Nd(10 ⁻⁶) 0.093	Ni(10 ⁻⁶) 0.43	P(10 ⁻²) 0.014	Pb(10 ⁻⁶) 5.7	
NCSDC 73347a	Human hair	Pr(10 ⁻⁹) 25	Rb(10 ⁻⁶) (0.06)	S(10 ⁻²) 4.19	Sb(10 ⁻⁶) (0.065)	Sc(10 ⁻⁶) (0.018)	Se(10 ⁻⁶) 0.58	Si(10 ⁻²) (0.06)	Sm(10 ⁻⁹) 19	Sn(10 ⁻⁶) (0.2)	Sr(10 ⁻⁶) 7.7	
NCSDC 73347a	Human hair	Tb(10 ⁻⁹) 3.3	Th(10 ⁻⁶) 0.064	Tl(10 ⁻⁶) (3.3)	Ti(10 ⁻⁹) 7.7	Tm(10 ⁻⁹) 21	U(10 ⁻⁹) 99	V(10 ⁻⁶) 0.5	Y(10 ⁻⁶) 11.2	Yb(10 ⁻⁹) 15	Zn(10 ⁻⁶) 137	
NCSDC 73347a	Human hair	Ash(%)										
NCSDC 73347a	Human hair	(5.5)										
Number	Name	Chemical Composition(µg/kg)							Unit Size (in g)			
		Pt	Pd	Ir	Os	Au	Rh					
NCSDC 73352	Platinum Group	0.26	0.26	(0.04)	(0.05)	0.90			500			
NCSDC 73353	Platinum Group	1.6	2.3	(0.05)	(0.05)	10			500			
NCSDC 73354	Platinum Group	6.4	4.6	4.3	9.6	1.1	1.3		500			
NCSDC 73355	Platinum Group	58	60	4.7	2.4	4.3	4.3		500			
NCSDC 73356	Platinum Group	20	11.3	136	353		10		500			
NCSDC 73357	Platinum Group	440	568	28	15.6	(45)	22		500			
NCSDC 73358	Platinum Group	14.7	15.2	1.2	0.64	(1.8)	1.1		500			

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		SiO ₂	Al ₂ O ₃	TFe ₂ O ₃	FeO	MgO	CaO	Na ₂ O	K ₂ O	H ₂ O ⁺	CO ₂	LOI			
NCS DC 73375	Limestone	6.65	0.68	0.21	(0.06)	0.71	51.1	(0.03)	0.15	(0.4)	39.8	40.2	70		
NCS DC 73376	Gramite	66.3	16.3	3.12	1.6	1.63	2.66	5.3	2.60	(1.0)	0.35	1.28	70		
NCS DC 73377	Plagioclase Bornblende	49.6	13.8	14.8	10.8	7.2	9.6	2.07	0.48	(1.7)	(0.16)	1.06	70		
		Chemical Composition(µg/g)													
		Ag	As	B	Ba	Be	Bi	Cd	Ce	Cl	Co	Cr	Cs		
NCS DC 73375	Limestone	(0.024)	0.67	(6)	8.6	0.13	0.032	(0.018)	4.6	(30)	(0.7)	(3.3)	(0.12)		
NCS DC 73376	Gramite	0.027	0.25	15	1140	1.7	0.094	(0.06)	48	(127)	7.5	23	2.6		
NCS DC 73377	Plagioclase Bornblende	(0.05)	25	12	62	0.34	(0.06)	0.14	7.8	(120)	52	137	1.9		
		Cu	Dy	Er	Eu	F	Ga	Gd	Ge	Hf	Hg	Hc	In		
NCS DC 73375	Limestone	(2.2)	0.28	0.15	0.082	240	(0.8)	0.36	0.13	0.21	0.005	(0.04)	(0.03)		
NCS DC 73376	Gramite	(2.6)	1.5	0.76	0.10	660	18	2.4	0.93	3.3	0.004	0.27			
NCS DC 73377	Plagioclase Bornblende	84	3.5	2.3	0.92	206	17.3	2.7	1.46	1.5	0.0032	0.84			
		La	Li	Lu	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb		
NCS DC 73375	Limestone	2.3	4.5	0.023	30	0.18	(0.8)	1.95	(4)	57	(5)	0.60	4.0		
NCS DC 73376	Gramite	25	24	0.11	430	(0.3)	4	21	12.2	570	7.7	5.7	57		
NCS DC 73377	Plagioclase Bornblende	2.9	11	0.38	1600	0.16	2.7	6.4	119	375	(9)	1.25	30		
		S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl		
NCS DC 73375	Limestone	35	0.068	(0.7)	0.021	0.40	(0.5)	110	(0.05)	0.054	0.86	233	(0.033)		
NCS DC 73376	Gramite	(50)	0.063	5.0	0.019	3.3	0.8	690	(0.33)	0.29	1.9	1780	(0.20)		
NCS DC 73377	Plagioclase Bornblende	(70)	(0.7)	43	0.083	2.1	(0.8)	142	(0.14)	0.57	(0.34)	5530	(0.11)		
		Tm	U	V	W	Y	Yb	Zn	Zr						
NCS DC 73375	Limestone	0.022	0.23	5.2	0.13	(1.8)	0.15	(7)	(11)						
NCS DC 73376	Gramite	0.11	(0.4)	45	0.42	7.4	0.69	46	(90)						
NCS DC 73377	Plagioclase Bornblende	0.36	(0.14)	300	0.34	20	2.4	100	57						
		Chemical Composition											Unit Size		
Number	Name	Pt(10 ⁻⁹)	Pt(10 ⁻⁶)	Pd(10 ⁻⁹)	Pd(10 ⁻⁶)	Os(10 ⁻⁹)	Ru(10 ⁻⁹)	Ir(10 ⁻⁹)	Rh(10 ⁻⁹)	Au(10 ⁻⁹)			(in g)		
NCS DC 73397	Platinum group	0.66		0.66		0.25	0.66	0.16	0.066	2.3			1000		
NCS DC 73398	Platinum group		1.9		0.57	43	74	28	7.3				1000		
NCS DC 73399	Platinum group		5.7		1.67	2	2	2.1	1.5				1000		
		Chemical Composition(Percent)											Unit Size		
Number	Name	Cu	Pb	Zn	Fe	S	Mn	SiO ₂	Al ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O	Ag*	(in g)
NCS DC 73510	Ore	0.096	5.13	13.9	19.6	29.0	0.066	14.1	(2.5)	0.59	6.5	(0.03)	0.78	148	50
		Ca*	Od*												
NCS DC 73510	Ore	62	400												

*Chemical Composition(10⁻⁶)

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(mg/g)											Unit Size (in g)
		Ni(%)	Co	S(%)	Ag	As	Cd	Cr	Cu	Mn	P	Pb	
NCSDC 73514	Nickel Ore	0.11	49	0.74	0.56	5.3	0.28	790	330	960	728	21	50
NCSDC 73515	Nickel Ore	0.33	104	1.53	0.75	5.1	0.34	0.13*	681	0.11*	485	25	50
NCSDC 73516	Nickel Ore	1.02	262	3.78	1.1	5.4	0.44	0.12*	0.16*	0.11*	829	25	50
NCSDC 73517	Nickel Ore	5.93	0.13*	18.14	9.3	25	2.5	(720)	1.52*	614	266	77	50
NCSDC 73518	Nickel Ore	9.01	0.20*	27.83	15.2	37	4	(457)	2.47*	295	(130)	116	50
		Sc	Ti	V	Zn	SiO ₂ (%)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)	Mgo(%)	CaO(%)	Na ₂ O(%)	K ₂ O(%)	H ₂ O(%)
NCSDC 73514	Nickel Ore	15.6	0.42*	102	79	54.89	12.21	8.58	9.67	4.6	2.16	1.51	3.37
NCSDC 73515	Nickel Ore	15.8	0.32*	93	77	52.29	9.09	10.71	14.56	4.02	1.59	1	3.78
NCSDC 73516	Nickel Ore	17.6	0.41*	112	77	46.85	8.65	14.69	14.45	4.7	1.55	0.9	3.21
NCSDC 73517	Nickel Ore	9.1	0.14*	61	102	27.4	4.06	34.71	9.88	2.55	0.69	0.34	2.4
NCSDC 73518	Nickel Ore	2.5	422	(30)	134	14.13	1.04	48.37	6.3	1.16	0.22	0.06	1.65
Note: Date in () is for reference only. value with* means in percent													
Number	Name	Chemical Composition											Unit Size (in g)
		Mo(%)	S(%)	Ag(µg/g)	As(µg/g)	Bi(µg/g)	Cd(µg/g)	Co(µg/g)	Cr(µg/g)	Cu(µg/g)	Ge(µg/g)	Mn(%)	
NCSDC 73519	Molybdenum Ore	0.066	0.38	(0.11)	5.2	6.9	0.50	13.3	23	46	6.2	0.92	50
NCSDC 73520	Molybdenum Ore	0.15	0.44	0.10	4.8	7.4	0.52	12.9	23	46	6.0	0.91	50
NCSDC 73521	Molybdenum Ore	0.54	0.68	0.13	4.7	8.2	0.52	13.2	23	48	6.2	0.91	50
NCSDC 73522	Molybdenum Ore	50.08	33.72	(2.1)	(2.2)	86	0.20	10.2	30	266	(0.67)	0.15	50
		Ni(µg/g)	P(µg/g)	Pb(µg/g)	Re(µg/g)	Sb(µg/g)	Sn(µg/g)	W(µg/g)	Zn(µg/g)	SiO ₂ (%)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)	MgO(%)
NCSDC 73519	Molybdenum Ore	54	1160	9.1	(0.07)	0.58	4.7	489	357	57.23	5.20	10.05	4.29
NCSDC 73520	Molybdenum Ore	52	1231	10.5	0.12	0.60	4.5	518	365	57.47	5.20	9.89	4.37
NCSDC 73521	Molybdenum Ore	52	1210	13.7	0.31	0.73	4.7	557	360	56.87	5.12	9.88	4.35
NCSDC 73522	Molybdenum Ore	(20)	(130)	316	23	13.2	(11.9)	732	68	7.58	(1.16)	1.23	1.96
		Total oil and											
		CaO(%)	Na ₂ O(%)	K ₂ O(%)	water(%)								
NCSDC 73519	Molybdenum Ore	18.37	0.90	0.66									
NCSDC 73520	Molybdenum Ore	18.13	0.91	0.66									
NCSDC 73521	Molybdenum Ore	18.09	0.90	0.66									
NCSDC 73522	Molybdenum Ore	1.95	(0.21)	(0.06)	0.85								

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		Al	Ca	Fe	K	Mg	N	Na	P	Si	Ti			
NCSDC 78302	Tibet Soil	7.11	2.59	3.34	2.12	1.53	0.128	1.52	0.86	30.57	0.40			15
Number	Name	Chemical Composition(µg/g)												
		As	Be	Cd	Co	Ce	Cr	Cu	Eu	La	Mn	Pb	Rb	
NCSDC 78302	Tibet Soil	3.8	2.96	0.081	13.1	83.6	60.8	24.6	1.4	41.9	677	14.2	135	
NCSDC 78302	Tibet Soil	Sc	Se	Sm	Sr	Th	U	V	Zn	Yb	Hf	Hg	Lu	
		10.8	0.16	7.1	163	17.5	3.84	77.5	58.0	3.1	(7.3)	(0.018)	(0.48)	
NCSDC 78302	Tibet Soil	Sb	Ta	Tb	Ba	Nd	Ni	Br	Cs	Dy				
		(0.4)	(1.1)	(0.9)	(509)	42.3	31.1	(1.3)	(7.3)	(5)				
Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		P ₂ O ₅	SiO ₂	CaO*	MgO	TFe ₂ O ₃	Al ₂ O ₃	MnO	TiO ₂	F	CO ₂	K ₂ O	Na ₂ O	
NCSDC 79001	Phosphat Rock	36.89	3.26	51.32	0.43	1.04	0.58	0.024	0.037	3.54	2.15	0.17	0.33	100
NCSDC 79002	Phosphat Rock	20.86	3.61	40.71	8.19	1.08	2.58	0.015	0.14	2.05	18.46	0.28	0.059	100
NCSDC 79003	Phosphat Rock	6.06	38.80	19.42	7.12	3.08	4.06	0.026	0.48	0.51	16.41	2.63	0.14	100
*Including Sro														
NCSDC 79001	Phosphat Rock	I	Ts	SrO										
		0.0052		0.077										
NCSDC 79002	Phosphat Rock	0.0059	0.79	0.16										
NCSDC 79003	Phosphat Rock			0.055										

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(Percent)									Unit Size (in g)				
		SiO ₂	Al ₂ O ₃	TFe ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂						
NCS DC 85107	Agriculture soil	65.37	15.06	4.98	1.62	1.68	2.48	2.72	0.74						70
NCS DC 85108	Agriculture soil	63.06	12.76	4.49	2.01	4.57	1.69	2.43	0.68						70
NCS DC 85109	Agriculture soil	53.72	14.74	5.72	2.09	7.93	0.99	2.72	0.65						70
NCS DC 85110	Agriculture soil	61.03	16.21	6.20	1.90	0.84	0.99	2.45	0.92						70
NCS DC 85111	Agriculture soil	69.68	14.58	5.21	0.54	(0.22)	(0.090)	1.08	0.96						70
NCS DC 85112	Agriculture soil	83.34	8.89	1.35	(0.20)	(0.16)	(0.038)	0.65	0.22						70
		MNO	P ₂ O ₅	S	L.O.I	Cu*	Zn*	B*	Mo*						
NCS DC 85107	Agriculture soil	0.094	0.120	(0.013)	4.83	24	67	34	0.80						
NCS DC 85108	Agriculture soil	0.077	0.162	(0.017)	7.71	25	68	54	(0.82)						
NCS DC 85109	Agriculture soil	0.106	0.197	(0.019)	11.17	29	96	75	1.53						
NCS DC 85110	Agriculture soil	0.050	0.098	(0.033)	9.01	42	93	65	0.73						
NCS DC 85111	Agriculture soil	0.029	0.122	(0.014)	7.52	32	81	71	1.47						
NCS DC 85112	Agriculture soil	0.015	0.124	(0.014)	4.86	2.8	22	(20)	1.15						
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		BeO	Li ₂ O	Rb ₂ O	Cs ₂ O	Ta ₂ O ₅	Nb ₂ O ₅	ZrO ₂	HfO ₂	SiO ₂	Al ₂ O ₃	TFeO ₃	FeO	CaO	
NCS DC 86301	Beryllium Ore	0.060								73.80	14.85	0.515	(0.17)	0.577	70
NCS DC 86302	Beryllium Ore	0.359								73.77	14.83	0.591	(0.18)	0.578	70
NCS DC 86303	Lithium Ore	0.017	0.459	0.145	0.036	48.4*	26.5*			74.21	14.79	0.391	(0.06)	0.335	70
NCS DC 86304	Lithium Ore	0.026	2.28	0.734	0.178	0.011	60.7*			64.70	19.23	0.299	(0.02)	0.076	70
NCS DC 86305	Tantalium Ore	0.033	0.791	0.245	0.064	87.3*	42.1			75.03	14.32	0.322	(0.02)	0.107	70
NCS DC 86306	Tantalium Ore	0.033	0.777	0.239	0.065	0.069	0.043								70
NCS DC 86307	Zirconium Ore							0.187	42.9*	65.36	14.75	4.78	1.83	2.69	70
NCS DC 86308	Zirconium Ore							1.27	0.026	65.56	14.76	4.67	1.83	2.64	70
NCS DC 86309	Rare-Earth Ore			5.71*						67.31	19.08	3.49	(0.07)	0.03	70
NCS DC 86310	Rare-Earth Ore		0.015	0.069	17.9*					74.61	14.72	1.16	0.053	0.03	70
NCS DC 86311	Rare-Earth Ore		0.015	0.068	17.9*					74.28	14.6	1.13	(0.04)	0.03	70
NCS DC 86312	Rare-Earth Ore		40.0*	0.011	5.66*					66.77	19.02	3.45	(0.07)	0.029	70
*Chemical Composition(10 ⁻⁶)															
		RE ₂ O ₃	La ₂ O ₃	MgO	MnO	TiO ₂	K ₂ O	Na ₂ O	P ₂ O ₅	F	H ₂ O*	L.O.I			
NCS DC 86301	Beryllium Ore	75.8*	6.97*	0.070	0.029	0.015	4.08	4.79	(0.01)	0.019	0.607	0.687			
NCS DC 86302	Beryllium Ore		7.74	0.069	0.035	0.015	3.87	4.66	0.013	0.040	0.596	0.732			
NCS DC 86303	Lithium Ore	47.1*	5.03*	0.054	0.069	0.018	3.16	4.19	0.169	0.676	1.06	1.49			
NCS DC 86304	Lithium Ore	15.2*	(2.1)*	0.036	0.252	0.028	4.79	2.34	0.236	3.16	2.34	4.11			
NCS DC 86305	Tantalium Ore	18.3*	3.09*	0.050	0.113	0.028	2.05	3.62	0.350	1.34	1.50	2.20			
NCS DC 86306	Tantalium Ore	44.9*	6.84*	0.048	0.143	0.032	2.02	3.69	0.344	1.34	1.53	2.20			
NCS DC 86307	Zirconium Ore	0.018	36.3*	2.08	0.082	0.420	3.35	3.80	0.166	0.081	1.34	1.57			
NCS DC 86308	Zirconium Ore	0.022	38.0*	2.01	0.083	0.411	3.33	3.72	0.169	0.083	1.3	1.51			
NCS DC 86309	Rare-Earth Ore	0.093	0.031	0.227	0.070	0.539	2.12	0.063	0.029	0.016	6.55	6.69			
NCS DC 86310	Rare-Earth Ore	0.086	19.9*	0.080	0.016	0.022	4.94	0.157	(0.003)	0.034	3.61	3.70			
NCS DC 86311	Rare-Earth Ore	0.493	0.010	0.080	0.016	(0.02)	4.87	0.155	(0.002)	0.034	3.66	3.78			
NCS DC 86312	Rare-Earth Ore	0.787	0.276	0.226	0.068	0.532	2.09	0.062	0.03	0.014	6.64	6.82			
*Cherical Composition(10 ⁻⁶)															

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		CeO ₂	Pr ₆ O ₁₁	Nd ₂ O ₃	Sm ₂ O ₃	Eu ₂ O ₃	Gd ₂ O ₃	Tb ₂ O ₇	Dy ₂ O ₃	HO ₂ O ₃	Er ₂ O ₃	Tm ₂ O ₃	Yb ₂ O ₃	La ₂ O ₃	
NCS DC 86301	Beryllium Ore	14.7	1.70	6.68	2.53	0.14	3.64	0.75	4.53	0.85	2.16	0.33	2.27	0.32	
NCS DC 86302	Beryllium Ore	15.2	1.91	7.52	2.73	0.14	3.84	0.80	4.63	0.91	2.20	0.36	2.37	0.38	
NCS DC 86303	Lithium Ore	8.98	1.30	4.96	1.60	(0.14)	2.09	0.42	2.47	0.43	1.16	0.18	1.28	0.18	
NCS DC 86304	Lithium Ore	2.56	0.61	2.56	0.63	0.13	0.72	0.13	0.63	(0.12)	0.27	0.039	0.23	0.030	
NCS DC 86305	Tantalium Ore	3.63	0.82	3.27	0.75	0.16	0.83	0.14	0.65	0.12	0.28	0.041	0.23	0.031	
NCS DC 86306	Tantalium Ore	16.9	2.17	6.54	1.44	0.18	1.22	0.21	1.11	0.22	0.57	0.11	0.94	0.15	
NCS DC 86307	Zirconium Ore	71.9	7.87	27.2	4.70	1.22	3.40	0.53	2.89	0.58	1.78	0.30	2.16	0.37	
NCS DC 86308	Zirconium Ore	75.9	7.91	27.0	4.93	1.22	(4.1)	0.76	4.71	1.36	4.82	0.94	7.74	1.54	
NCS DC 86309	Rare-Earth Ore	91.2	50.1	0.017*	33.8	8.10	32.1	5.34	28.4	5.69	(16)	2.40	14.1	2.06	
NCS DC 86310	Rare-Earth Ore	21.9	6.32	27.9	15.3	0.37	32.9	8.03	56.9	12.1	36.6	5.60	36.0	5.67	
NCS DC 86311	Rare-Earth Ore	34.1	(45)	0.022*	0.015*	1.83	(0.03)*	56.2	0.037*	76.3	0.022*	32.6	0.021*	30.8	
NCS DC 86312	Rare-Earth Ore	0.023*	0.054*	0.186*	0.033*	76.6	0.026*	40.5	0.021*	42.3	0.011*	15.1	97.0	13.7	
		Y ₂ O ₃	Sc ₂ O ₃	W	Mo	Sn	Th								
NCS DC 86301	Beryllium Ore	29.2	1.66	1.30	0.41										
NCS DC 86302	Beryllium Ore	28.5	3.4	5.46	1.25										
NCS DC 86303	Lithium Ore	17.0	0.98	8.87		(32)									
NCS DC 86304	Lithium Ore	3.51	0.44	43.7		95.4									
NCS DC 86305	Tantalium Ore	3.76	0.63	16.4		(52)									
NCS DC 86306	Tantalium Ore	5.22	6.09	0.02*		(64)									
NCS DC 86307	Zirconium Ore	19.5	14.1				7.95								
NCS DC 86308	Zirconium Ore	42.7	14.5				15.0								
NCS DC 86309	Rare-Earth Ore	(0.02)*					24.4								
NCS DC 86310	Rare-Earth Ore	0.057*	9.26				40.0								
NCS DC 86311	Rare-Earth Ore	0.312*	8.96				38.8								
NCS DC 86312	Rare-Earth Ore	0.125*	11.6				23.8								
*Chemical Composition Percent															
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃ (T)	FeO	CaO	MgO	MnO	TiO ₂	K ₂ O	Na ₂ O	P ₂ O ₅	F	H ₂ O ⁺	
NCS DC 86313	Beryllium Ore	71.97	15.55	0.47	0.15	0.52	0.083	0.020	0.010	3.28	3.63	(0.018)	0.0088	(0.63)	70
NCS DC 86314	Lithium Ore	53.92	24.53	0.30	(0.043)	0.063	0.027	0.40	0.029	7.75	1.08	0.13	5.08	(2.77)	70
NCS DC 86315	Tantalum Ore	72.34	14.58	0.68	0.26	0.71	0.093	0.45	0.039	4.11	4.40	(0.040)	0.019	0.56	70
NCS DC 86316	Zirconium Ore	70.73	(14.57)	0.38	0.10	0.63	0.079	0.021	0.64	3.90	4.20	0.040	0.027	0.49	70
		L.O.I													
NCS DC 86313	Beryllium Ore	0.86													
NCS DC 86314	Lithium Ore	(5.34)													
NCS DC 86315	Tantalum Ore	0.61													
NCS DC 86316	Zirconium Ore	0.56													
Number	Name	Chemical Composition(µg/g)													Unit Size (in g)
		Σ RE ₂ O ₃	La ₂ O ₃	CeO ₂	Pr ₆ O ₁₁	Nd ₂ O ₃	Sm ₂ O ₃	Eu ₂ O ₃	Gd ₂ O ₃	Tb ₂ O ₇	Dy ₂ O ₃	Ho ₂ O ₃	Er ₂ O ₃	Tm ₂ O ₃	
NCS DC 86313	Beryllium Ore	63.6	6.08	13.1	1.58	5.96	1.99	0.11	2.83	0.57	3.62	0.67	1.95	0.29	
NCS DC 86314	Lithium Ore	0.56	0.10	0.50	0.094	0.24	0.038	0.10	0.56	0.10	0.50	0.094	0.24	0.038	
NCS DC 86315	Tantalum Ore	81.0	7.65	16.5	1.91	7.84	2.48	0.13	3.47	0.72	4.72	0.88	2.65	0.38	
NCS DC 86316	Zirconium Ore	515	69.2	146	15.7	53.4	10.1	0.55	9.92	2.02	14.9	3.66	16.4	2.84	
		Yb ₂ O ₃	Lu ₂ O ₃	Y ₂ O ₃	Sc ₂ O ₃	Mo	BeO	Lu ₂ O ₃	Y ₂ O ₃	Sc ₂ O ₃	W	Rb ₂ O	BeO	Li ₂ O	
NCS DC 86313	Beryllium Ore	1.88	0.25	23.0	1.91	3.37	3.02*								
NCS DC 86314	Lithium Ore	0.22						0.036	3.06	0.31	79.0	1.24*	164	3.89*	
NCS DC 86315	Tantalum Ore	2.37						0.37	29.9	21.4	2.14	244	12.5	106	
NCS DC 86316	Zirconium Ore	25.9													

Section 4 Mineral & Geology(Powder)

		Cs ₂ O	Nb ₂ O ₅	Ta ₂ O ₅	Sn	Lu ₂ O ₃	Y ₂ O ₃	Sc ₂ O ₃	W	ZrO ₂	Th	HfO ₂				
NCS DC 86314	Lithium Ore	0.30*	81	132	152											
NCS DC 86355	Tantalum Ore	8.14	0.52*	1.02*	(2.65)											
NCS DC 86316	Zirconium Ore					6.11	142	10.7	5.01	4.68*	202	0.084*				
Number	Name	Chemical Composition(%)													Unit Size (in g)	
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃ (T)	FeO	CaO	MgO	MnO	TiO ₂	K ₂ O	Na ₂ O	P ₂ O ₅	F	H ₂ O ⁺		
NCS DC 86317	Rare Earth Ore	70.92	16.59	0.71	0.18	(0.11)	0.13	0.10	(0.018)	4.03	0.13	(0.0073)	0.15	4.63	70	
NCS DC 86318	Rare Earth Ore	66.9	(14.26)	2.24	0.20	0.29	(0.11)	0.052	0.17	5.52	0.66	(0.020)	0.017	3.60	70	
		L ₂ O ₁	Σ RE ₂ O ₃	La ₂ O ₃	CeO ₂	Pr ₂ O ₃	Nd ₂ O ₃	Sm ₂ O ₃	Eu ₂ O ₃	Gd ₂ O ₃	Tb ₂ O ₃	Dy ₂ O ₃	Ho ₂ O ₃	Er ₂ O ₃		
NCS DC 86317	Rare Earth Ore	5.42	1.83	0.25	0.021	0.066	0.24	0.066	9.56*	0.091	0.019	0.12	(0.023)	0.068		
NCS DC 86318	Rare Earth Ore	5.43	4.30	0.23	0.053	0.089	0.40	0.20	21.9*	0.25	0.055	0.37	(0.064)	0.20		
		Tm ₂ O ₃	Yb ₂ O ₃	Lu ₂ O ₃	Y ₂ O ₃	Sc ₂ O ₃	Cs ₂ O	Rb ₂ O	Th	Li ₂ O						
NCS DC 86317	Rare Earth Ore	82.9*	0.051	64.5*	0.80	10.1*	148*	0.12	21.0*	396*						
NCS DC 86318	Rare Earth Ore	0.031	0.21	0.030	2.16	7.2*	12.6*	404*	67.0*	121*						
*Chemical Composition µg/g																
Number	Name	Chemical Composition(%)													Unit Size (in g)	
		Al ₂ O ₃	CaO	CO ₂	K ₂ O	LOI	MgO	MnO	Na ₂ O	P ₂ O ₅	S	SiO ₂	TF ₂ O ₃	TiO ₂		
NCS DC87111	Magnesite	0.073	0.76	45.84	0.0052	51.04	47.16	0.013	0.011	0.013	0.0024	0.35	0.19	0.0024	80	
NCS DC87112	Magnesite	0.83	0.44	42.4	0.0048	47.15	45.61	0.015	0.025	0.019	0.0023	5.15	0.65	0.021	80	
NCS DC87113	Magnesite	1.71	2.51	39.96	0.0098	45.76	43.64	0.016	0.02	0.023	0.0034	5.45	0.71	0.053	80	
NCS DC87114	Magnesite	0.35	1.99	44.97	0.012	49.81	44.24	0.05	0.013	0.025	0.0031	1.71	1.79	0.01	80	
NCS DC87115	Magnesite	0.26	1.67	8.59	0.014	9.71	81.26	0.018	0.024	0.08	0.048	6.28	0.33	0.0098	80	
		(µg/g)														
		As	Ba	Ce	Co	Cr	Cu	La	Li	Ni	Pb	Sc	Sr	Th		
NCS DC87111	Magnesite	0.41	1.4	1.6	0.53	2.12	0.81	0.66	2.21	2.14	0.79	0.99	3.49	0.047		
NCS DC87112	Magnesite	0.4	2.99	7.77	0.69	10.2	0.77	3.23	2.16	8.31	1.14	3.23	5.06	0.85		
NCS DC87113	Magnesite	0.25	5.68	8.54	1.7	13.4	0.99	3.33	11.2	9.23	1.35	3.09	30.1	1.95		
NCS DC87114	Magnesite	0.68	9.99	1.67	3.14	4.16	16.4	0.57	12.8	12.1	1.05	1.58	10.6	0.2		
NCS DC87115	Magnesite	4.28	6.47	2.87	0.73	3.33	2.9	1.1	2.4	2.85	3.03	2.27	22.2	0.18		
		(µg/g)														
		U	V	Y	Zn											
NCS DC87111	Magnesite	0.41	0.96	1.25	1.94											
NCS DC87112	Magnesite	0.33	4.09	6.68	2.41											
NCS DC87113	Magnesite	0.25	7.26	3.32	2.64											
NCS DC87114	Magnesite	0.96	1.63	3.25	2.55											
NCS DC87115	Magnesite	1.2	7.95	2.01	8.53											

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(%)														Unit Size (in g)	
		Al ₂ O ₃	CaO	CO ₂	LOI	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	S	SiO ₂	TFe ₂ O ₃	TiO ₂	Cr ₂ O ₃		
NCS DC87116	Serpentine	0.13	0.62	7.29	19.07	0.015	43.09	0.012	0.0067	0.013	0.015	36.45	0.44	0.005	0.001	80	
NCS DC87117	Serpentine	0.49	0.35	1.34	14.04	0.0052	40.17	0.09	0.0039	0.0054	0.042	37.49	7.16	0.013	0.35	80	
NCS DC87118	Serpentine	0.46	19.46	15.15	24.05	0.009	23.73	0.075	0.0061	0.0095	0.006	25.38	5.83	0.018	0.27	80	
NCS DC87119	Serpentine	0.91	0.49	0.75	12.67	0.13	39.87	0.098	0.03	0.006	0.043	38.4	7.09	0.019	0.34	80	
NCS DC87120	Serpentine	13.84	6.41	0.81	10.98	0.34	27.38	0.23	0.0081	0.0055	0.024	35.4	4.72	0.032	0.33	80	
		(µg/g)															
		As	Ba	Ce	Co	Cu	La	Li	Ni	Pb	Sc	Sr	Th	U	V		
NCS DC87116	Serpentine	56.8	5.25	1.73	0.5	1.74	0.88	7.9	1.98	1.28	1.22	8.16	0.1	2	3.92		
NCS DC87117	Serpentine	1.4	2.54	0.98	102	2.23	0.51	5.04	2276	4.94	6.45	11	0.067	0.029	32.2		
NCS DC87118	Serpentine	9.04	17.7	1.23	81.3	3.6	1.38	4.53	1937	206	4.98	40.2	0.051	7.72	32.9		
NCS DC87119	Serpentine	0.64	88.2	2.08	101	3.66	1.31	3.82	2174	3.76	7.85	14.9	0.75	0.28	40.9		
NCS DC87120	Serpentine	7.07	177	0.55	57.5	35.7	0.24	163	1057	1.79	5.14	62.8	0.042	0.038	32.9		
		(µg/g)															
		Y	Zn														
NCS DC87116	Serpentine	0.7	4.03														
NCS DC87117	Serpentine	0.26	58.2														
NCS DC87118	Serpentine	2.51	57.6														
NCS DC87119	Serpentine	0.68	44.5														
NCS DC87120	Serpentine	0.87	33.4														

Section 4 Mineral & Geology(Powder)

Number	Name	Certified value		Chemical Composition($\mu\text{g/g}$)							Unit Size (in g)			
NCS DC 90001	Ag in Silver ore	46.9									50			
NCS DC 90002	Ag in Silver ore	112									50			
NCS DC 90003	Ag in Silver ore	298									50			
NCS DC 90004	Ag in Silver ore	446									50			
NCS DC 90005	Ag in Silver ore	559									50			
NCS DC 90006	Ag in Silver ore	732									50			
Number	Name	Chemical Composition(Percent)									Unit Size (in g)			
		F	Al	Na	SiO ₂	Fe ₂ O ₃	SO ₄ ²⁻	P ₂ O ₅	CaO	L.O.I				
NCS DC 91001	Cryolite	55.45	17.34	21.75	0.087	0.053	0.233	0.0034	(0.606)	4.53	100			
NCS DC 91002	Cryolite	54.66	15.18	26.32	0.211	0.032	0.199	0.025	(0.597)	2.97	100			
NCS DC 91003	Cryolite	53.89	13.65	29.29	0.363	0.036	0.205	0.013	(0.719)	2.25	100			
NCS DC 91004	Cryolite	53.2	13.16	30.26	0.389	0.033	0.293	0.037	(0.508)	2.12	100			
NCS DC 91005	Cryolite	52.14	12.69	32.01	0.485	0.0098	0.45	0.065	(0.0062)	1.4	100			
NCS DC 91006	Cryolite	51.21	11.75	33.24	0.238	0.04	0.683	0.051	0.112	1.6	100			
Number	Name	Chemical Composition(Percent)									Unit Size (in g)			
		F	Al	Na	SiO ₂	FeO	SO	PO	L.O.I					
NCS DC 91007	Aluminum fluoride	60.76	30.27	0.104	0.146	0.156	0.654	0.0295	6.00		100			
NCS DC 91008	Aluminum fluoride	61.79	30.7	0.097	0.104	0.132	0.585	0.0253	4.61		100			
NCS DC 91009	Aluminum fluoride	57.79	34.68	0.113	0.015	0.028	0.093	0.0008	0.662		100			
NCS DC 91010	Aluminum fluoride	60.96	30.52	0.125	0.251	0.126	0.748	0.0265	5.48		100			
NCS DC 91011	Aluminum fluoride	61.51	32.28	0.121	0.429	0.021	0.627	0.1317	0.754		100			
NCS DC 91012	Aluminum fluoride	59.74	33.93	0.126	0.016	0.037	0.136	0.0027	0.547		100			
NCS DC 91013	Aluminum fluoride	60.88	33.12	0.315	0.017	0.02	0.098	0.0013	0.467		100			
NCS DC 91014	Aluminum fluoride	57.72	34.76	0.113	0.014	0.015	0.104	0.0007	0.64		100			
NCS DC 91015	Aluminum fluoride	59.99	30.7	0.111	0.301	0.107	0.702	0.0247	5.61		100			
NCS DC 91016	Aluminum fluoride	64.97	31.92	0.028	0.196	0.025	0.076	0.0275	1.25		100			
Number	Name	Chemical Composition			Chemical Composition(Percent)									Unit Size (in g)
		Au(ng/g)	Au(g/T)	Ag(g/T)	F	Al	Na	SiO ₂	FeO	SO	PO	L.O.I		
NCS DC 93003	Gold Ore	3.4												500
NCS DC 93004	Gold Ore	52												500
NCS DC 93006	Gold Ore		57.2	43.4										1000
NCS DC 93007	Gold Ore		37.3	26.2										1000
NCS DC 93008	Gold Ore		20.9	63.1										750
NCS DC 93009	Gold Ore		2.5	7.8										500
Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	Mn	TiO ₂	P	S	Na ₂ O	K ₂ O	
NCS DC 93023	Magnetite	61.34	29.68	12.36	0.45	0.64	(0.6)	0.056	0.064	0.036	0.494	0.012	0.018	100
NCS DC 93024	Magnetite	68.02	30.50	4.58	0.34	0.35	0.19	0.017	0.056	0.017	0.301	0.012	0.018	100
NCS DC 93025	Magnetite	64.17	31.34	9.43	0.29	0.56	0.49	0.032	0.049	0.033	0.624	0.011	0.012	100
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		SiC	Fe ₂ O ₃	F.C.	F.Si	SiO ₂	Al ₂ O ₃	CaO	MgO					
NCS DC 93026	Silicon Carbide	84.09	0.86	1.71	1.45	6.15	1.41	0.17	0.082			50		
NCS DC 93027	Silicon Carbide	90.86	1.12	3.48	0.24	2	0.77	0.47	0.039			50		
NCS DC 93028	Silicon Carbide	97.87	0.39	0.48	0.18	0.55	0.1	0.055	0.008			50		
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		Ni	Fe	SiO ₂	Al ₂ O ₃	CaO	MgO	Mn	Cr	S	P			
NCS DC 93030	Nickel iron ore	1.71	15.04	36.98	1.57	0.15	23.80	0.27	0.78	0.018	0.003	50		
Number	Name	Chemical Composition(Percent)									Unit Size (in g)			
		Si	Fe	Si _f	Al	Ca	N	Si ₃ N ₄						
NCS DC 93031	Silicon Nitride	59.16	0.48	1.04	0.23	0.098	36	90.14			50			
Number	Name	Chemical Composition(Percent)											Unit Size (in g)	
		TFe	FeO	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	TiO ₂	S	P	V ₂ O ₅		
NCS DC 93032	Titanium concentrate	34.26	37.08	2.08	0.64	0.64	3.04	0.766	47.79	0.185	0.0074	0.088	100	
NCS DC 93033	Titanium concentrate	31.11	35.76	4.03	1.08	1.17	5.36	0.698	45.96	0.201	0.0032	0.075	100	
NCS DC 93034	Iron Ore	52.84	33.14	4	4.29	1.04	3.17	0.356	12.78	0.786	0.002	0.561	100	

Section 4 Mineral & Geology(Powder)

Number	Name	Chemical Composition(µg/g)										Unit Size (in g)
		SiO ₂	Fe ₂ O ₃	Al ₂ O ₃	TiO ₂	CaO	MgO	TS	Na ₂ O	K ₂ O	MnO	
NCS DC 91017	Bauxite	3.16	2.01	71.14	3.04	0.75	0.090	0.031	0.022	0.477	0.0036	50
NCS DC 91018	Bauxite	8.02	6.06	64.53	2.59	0.26	0.246	0.040	0.030	0.22	0.012	50
NCS DC 91019	Bauxite	6.31	16.11	57.15	2.65	0.089	0.235	0.033	0.031	1.00	0.021	50
		P ₂ O ₅	Ga ₂ O ₃	ZnO								
NCS DC 91017	Bauxite	0.221	0.0114	0.0018								
NCS DC 91018	Bauxite	0.185	0.0106	0.0040								
NCS DC 91019	Bauxite	0.077	0.0088	0.0036								
Number	Name	Chemical Composition(µg/g)										Unit Size (in g)
		SiO ₂	Fe ₂ O ₃	Na ₂ O	K ₂ O	TiO ₂	V ₂ O ₅	P ₂ O ₅	ZnO	Li ₂ O	CaO	
NCS DC 91020	Aluminium Hydroxide	0.0089	0.0047	0.19	0.0004	0.0013	0.00013	0.00009	0.00044	0.0002	0.0069	50
NCS DC 91021	Aluminium Hydroxide	0.02	0.0035	0.34	0.017	(0.00008)	0.00013	0.00015	0.00042	0.011	0.015	50
NCS DC 91022	Aluminium Hydroxide	0.112	0.0062	1.4	0.1	0.00054	0.00027	0.00029	0.00026	0.0027	0.017	50
NCS DC 91023	Aluminium Hydroxide	0.037	0.0037	0.55	0.03	0.0011	0.00017	0.0002	0.00041	0.0012	0.009	50
NCS DC 91024	Aluminium Hydroxide	0.083	0.0033	0.68	0.038	0.00014	0.00021	0.00028	0.00031	0.0079	0.017	50
		MgO	Cr ₂ O ₃	L.O.I	CuO							
NCS DC 91020	Aluminium Hydroxide	0.0014	(0.0001)	34.26	(<0.0001)							
NCS DC 91021	Aluminium Hydroxide	0.0012	(0.0001)	34.26								
NCS DC 91022	Aluminium Hydroxide	0.0048	(0.0001)	33.7								
NCS DC 91023	Aluminium Hydroxide	0.0019	(0.0001)	34.23								
NCS DC 91024	Aluminium Hydroxide	0.0023	(0.0001)	34.14								
Number	Name	Chemical Composition(µg/g)										Unit Size (in g)
		SiO ₂	Fe ₂ O ₃	Na ₂ O	K ₂ O	TiO ₂	CaO	ZnO	Li ₂ O	MgO	V ₂ O ₅	
NCS DC 91025	Alumina	0.044	0.022	0.27	0.014	0.0027	0.022	0.0049	0.048	0.009	0.00034	50
NCS DC 91026	Alumina	0.025	0.0044	0.43	0.019	0.00019	0.016	0.0005	0.016	0.0024	0.00097	50
NCS DC 91027	Alumina	0.034	0.0087	0.18	0.0026	0.0035	0.02	0.00027	0.0089	0.0018	0.0019	50
NCS DC 91028	Alumina	0.047	0.0094	0.31	0.0056	0.0042	0.021	-0.00013	0.01	0.0012	0.0034	50
NCS DC 91029	Alumina	0.041	0.014	0.22	0.0077	0.0033	0.023	0.0026	0.027	0.006	0.00095	50
		P ₂ O ₅	Cr ₂ O ₃	L.O.I	CuO							
NCS DC 91025	Alumina	0.00052	(0.0002)	0.49	(0.0002)							
NCS DC 91026	Alumina	0.00022	(0.0003)	1	(<0.0001)							
NCS DC 91027	Alumina	0.00095	(0.0002)	0.042								
NCS DC 91028	Alumina	0.00098	(0.0002)	0.16								
NCS DC 91029	Alumina	0.00076	(0.0002)	0.29								
Number	Name	Chemical Composition(µg/g)										Unit Size (in g)
		Mo	SiO ₂	CaO	Cu	Fe ₂ O ₃	MgO	Mn	Pb	W	Zn	
NCS DC93010a	Molybdenum Concentrate	55.54	2.56	0.95	0.06	1.44	0.47	0.033	0.044	0.12	0.014	50
		Al ₂ O ₃	C	Bi	P	Re	Total oil and water					
NCS DC93010a	Molybdenum Concentrate	0.23	0.34	0.0052	0.0055	0.0026	(0.34)					

Section 5 Slag, Refractory(Powder)

Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		SiO ₂	MnO	P ₂ O ₅	S	TiO ₂	CaO	MgO	K ₂ O	Na ₂ O	Al ₂ O ₃	TFe	F	Cr ₂ O ₃	
NCS HC 11801	Blast Furnace Slag	34.31	0.34	0.012	0.97	1.52	39.02	8.12	0.47	0.41	13.83	0.411	(0.062)	60	
NCS HC 11802	Blast Furnace Slag	32.25	0.51	0.0074	0.95	0.706	40.07	9.17	0.43	0.47	14.46	0.262	(0.14)	60	
NCS HC 11803	Electric Furnace Slag	53.43	0.35	0.006	0.034	0.079	5.55	28.96	0.19	0.2	3.15	5.75	(0.033)	0.77	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	Al ₂ O ₃	MnO	FeO	S	TiO ₂	MgO	CaO	TCa	P ₂ O ₅	F	CaF	
NCS HC 13804	Converter Slag	13.38	14.91	1.78	1.86	12.33		0.42	9.28		37.64	1.02		1.41	
NCS HC 13805	Open Hearth Slag	34.33	8.91	3.92	2.01	36.55		0.32	21.15			0.87			
NCS HC 13806	Electric Furnace Slag	13.11	21.35	4.00	13.16	15.25		0.18	15.18		16.22	0.125	0.17		
NCS HC 13807	Electric Furnace Slag	2.26	24.77	8.72	2.39	1.89		0.25	15.60		28.87	0.030	0.82		
Number	Name	Chemical Composition(Percent)									Unit Size (in g)				
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	K ₂ O	Na ₂ O	TiO ₂	P					
NCS HC 14807	Mullite	51.43	43.62	1.14	0.23	0.21	1.62	0.46	0.65	0.062				60	
NCS HC 14808	Mullite	37.41	57.47	0.46	0.15	0.14	1.69	0.46	1.45	0.022				60	
NCS HC 14809	Mullite	21.81	72.39	0.93	0.19	0.42	0.24	0.16	3.64	0.043				60	
Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		TFe	SiO ₂	Al ₂ O ₃	MnO	FeO	S	TiO ₂	MgO	CaO	K ₂ O	Na ₂ O	P		
NCS HC 15803	Blast Furnace Slag	1.76	35.00	13.93	0.175	2.16	0.98	0.51	5.61	39.66	0.42	0.26	0.0066	80	
Number	Name	Chemical Composition(Percent)							Unit Size (in g)						
		C	SiO ₂	Mn	P	S	Fe								
NCS HC 15804	Manganese-rich slag	0.014	25.16	44.42	0.0032	0.32	0.22	100							
Number	Name	Chemical Composition(Percent)											Unit Size (in g)		
		TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	TiO ₂	P ₂ O ₅	S	TCa				
NCS HC 18806	Blast Furnace Slag	0.60	32.75	14.11	38.84	8.46	0.30	2.63	0.008	1.13				100	
NCS HC 18807	Blast Furnace Slag	1.10	33.04	16.48	35.77	8.77	0.74	0.73	0.009	0.90				100	
NCS HC 18808	Converter slag	24.55	13.44	1.25		11.66	3.34	2.22	2.00	0.13	24.10			100	
NCS HC 18809	Slag	0.30	16.50	21.94		6.55	0.18	1.03	0.024	0.69	35.21			100	
Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		TFe	SiO ₂	Al ₂ O ₃	MnO	P	S	TiO ₂	MgO	CaO	V ₂ O ₅	K ₂ O	Na ₂ O		
NCS HC 19805	VTi Blast Furnace Slag	0.80	22.67	13.85	0.74		0.234		9.05	25.57	0.44			100	
NCS HC 19805a	VTi Blast Furnace Slag	2.31	26.30	14.46	0.757	0.0060	0.390	19.98	8.82	25.37	0.347	0.740	0.258	100	
NCS HC 19805b	VTi Blast Furnace Slag	1.28	25.41	13.55	0.607	0.0036	0.477	22.35	7.48	27.28	0.272			100	
Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		TFe	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO	P	S	V ₂ O ₅	TiO ₂	Cr ₂ O ₃			
NCS HC 19813	High-Titanium Slag	6.43	5.50	2.64	1.52	5.28	1.08		0.118		77.66			100	
NCS HC 19814	High-Titanium Slag	1.08	4.13	3.04	1.83	7.27	0.74		0.247		84.94			100	
NCS HC 19815	High-Titanium Slag	1.02	1.92	2.62	0.287	2.67	1.21		0.166		94.69			100	
NCS HC 19817	V Slag	30.48	16.90	3.84	1.96	3.34	6.87	0.054	0.054	16.18	10.87	2.40		100	
NCS HC 19818	V Slag	28.96	15.93	4.05	1.57	3.28	7.80	0.037	0.053	17.69	11.53	3.03		100	
NCS HC 19819	V Slag	30.08	15.79	4.15	1.79	3.41	8.36	0.026	0.201	2.20	11.37	2.60		100	
NCS HC 19820	V Slag	32.30	16.47	3.98	2.12	3.37	7.36	0.040	0.195	1.78	10.80	2.00		100	
NCS HC 19821	VTi Slag	0.695	1.13	56.53	9.01	27.14	0.081	0.013	0.013	3.18				100	
NCS HC 19822	VTi Slag	0.442	0.570	65.99	10.20	18.20	0.060	0.006	0.013	3.41				100	
Number	Name	Chemical Composition(Percent)								Unit Size (in g)					
		Mn	Fe	P	SiO ₂	Al ₂ O ₃	CaO	MgO	S						
NCS HC 25801	Rich Slag-Manganese	35.31	1.77	0.56	33.47	1.91	7.79	3.99	0.66					50	

Section 5 Slag, Refractory(Powder)

Number	Name	Chemical Composition(Percent)									Unit Size (in g)				
		SiO ₂	TCa	Na ₂ O	Al ₂ O ₃	MgO	FC	TC	F*						
NCS HC 26801	Continuous Casting mold powder	18.96	12.89	9.86	16.99	1.39	18.14	19.97	4.47	50					
NCS HC 26803	Continuous Casting mold powder	30.1	30.78	0.52	2.14	1.3	4.06	5.98	10.59	50					
NCS HC 26804	Continuous Casting mold powder	34.95	19.13	4.99	5.3	0.78	14.49	15.86	5.15	50					
NCS HC 26805	Continuous Casting mold powder	41.31	21.46	4.07	6.93	3.26	1.57	3.06	4.79	50					
Number	Name	Chemical Composition(Percent)									Unit Size (in g)				
		TFe	CaO	SiO ₂	MgO	Al ₂ O ₃	MnO	TiO ₂	P ₂ O ₅	S					
NCS HC 28803	Blast Furnace Slag	0.92	36.26	31.82	9.92	16.85	0.78	0.52	0.018	0.75	60				
NCS HC 28804	Blast Furnace Slag	2.01	37.13	31.18	7.52	16.26	1.23	0.58	0.043	0.79	60				
NCS HC 28805	Blast Furnace Slag	0.76	39.20	34.91	9.27	12.80	0.090	0.42	0.012	0.90	60				
Number	Name	Chemical Composition(Percent)									Unit Size (in g)				
		S	SiO ₂	CaO	TCa	MgO	Al ₂ O ₃	TFe							
NCS HC 28806	Slag	1.15	30.36	37.53		10.8	16.92	0.211		50					
NCS HC 28807	Slag	0.134	14.54		32.32	7.27	3.67	13.54		50					
NCS HC 28808	Slag	0.885	29.62	35.71		10.92	18.05	0.48		50					
		K ₂ O	Na ₂ O	MnO	P ₂ O ₅	TiO ₂	FeO	F							
NCS HC 28806	Slag	0.46	0.39	0.414	0.013	0.762	0.35								
NCS HC 28807	Slag	0.033	0.057	4.06	1.72	1.13	10.44	0.76							
NCS HC 28808	Slag	0.42	0.36	0.542	0.027	0.753	0.55								
Number	Name	Chemical Composition(Percent)									Unit Size (in g)				
		TFe	TCa	SiO ₂	MgO	Al ₂ O ₃	MnO	TiO ₂	P ₂ O ₅	S					
NCS HC 28809	Converter Slag	13.50	32.65	15.40	7.75	4.38	2.30	1.02	1.67	0.195	60				
NCS HC 28810	Converter Slag	16.52	33.35	14.45	7.1	1.76	2.78	1.25	1.60	0.120	60				
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Al ₂ O ₃	CaO	MgO	P ₂ O ₅	Fe ₂ O ₃	TiO ₂	MnO	SiO ₂	K ₂ O	Na ₂ O	L.O.L	C		
NCS HC 28811	Bauxite	46.52	0.69	0.37	0.35	14.01	1.36	0.13	22.96	0.25	0.1	12.75	0.2	50	
NCS HC 28812	Bauxite	60.41	0.51	0.26	0.3	9.69	2.22	0.082	17.82	0.22	0.07	7.96	0.14	50	
NCS HC 28813	Bauxite	70.28	0.37	0.18	0.25	6.64	2.85	0.053	14.2	0.2	0.051	4.57	0.099	50	
NCS HC 28814	Bauxite	83.07	0.22	0.088	0.18	2.71	3.64	0.011	9.69	0.17	0.022	0.15	0.05	50	
NCS HC 28815	Bauxite	88.55	0.15	0.073	0.23	1.75	3.69			0.11	0.017		0.018	50	
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		TFe	SiO ₂	CaO	MgO	Al ₂ O ₃	FeO	MnO	TiO ₂	S	P ₂ O ₅	K ₂ O	Na ₂ O ₃		
NCS HC 28816	Coverter Slag	18.66	12.8	45.02	8.23	2.07	14.24	2.75	0.7	0.12	1.99	0.033	0.13	50	
NCS HC 28817	Coverter Slag	19.96	17.71	36.43	8.51	1.64	14.49	3.46	1.04	0.034	1.95	0.083	0.076	50	
NCS HC 28818	Coverter Slag	21.04	18.81	37.31	5.23	1.56	17.01	3.79	1.11	0.034	1.86	0.082	0.046	50	
NCS HC 28819	Coverter Slag	16.84	22.21	37.01	6.89	1.93	14.02	5.02	0.97	0.056	2.7	0.087	0.046	50	
NCS HC 28820	Coverter Slag	16.56	12.35	45.44	6.91	1.52	13.87	2.29	0.65	0.12	2.28	0.032	0.091	50	
NCS HC 28821	Coverter Slag	15.33	14.17	44.45	7.01	2.76	11.43	2.4	0.65	0.17	2.21	0.1	0.13	50	
		Cr ₂ O ₃	V ₂ O ₅	As	Pb	Zn	F	Cd							
NCS HC 28816	Coverter Slag	0.076	0.122	0.0002	0.0002	0.0011	0.12	0.0001*							
NCS HC 28817	Coverter Slag	0.063	0.346	0.0003	0.0003	0.0014	0.059	0.0001*							
NCS HC 28818	Coverter Slag	0.079	0.35	0.0003	0.0003	0.0014	0.043	0.0001*							
NCS HC 28819	Coverter Slag	0.105	0.2	0.0001	0.0003	0.0003	0.16	0.0001*							
NCS HC 28820	Coverter Slag	0.089	0.229	0.0002	0.0035	0.003	0.18	0.0001*							
NCS HC 28821	Coverter Slag	0.12	0.186	0.0003	0.0074	0.01	0.39	0.0001*							
Number	Name	Chemical Composition(Percent)						Unit Size (in g)							
		FeO	SiO ₂	Al ₂ O ₃	CaO	Sn									
NCS HC 35801	Sn Slag	46.18	19.61	7.36	4.12	11.96	70								
NCS HC 35802	Sn Slag	22.22	37.49	9.32	19.76	2.32	70								
Number	Name	Chemical Composition(Percent)												Unit Size (in g)	
		CaO	SiO ₂	MgO	Al ₂ O ₃	TFe	FeO	MnO	TiO ₂	P ₂ O ₅	S	K ₂ O	Na ₂ O		
NCS HC93801	Slag	42.52	34.91	8.1	12.09	0.63	0.78	0.13	0.56	0.01	1.15	0.52	0.27	50	
NCS HC93802	Slag	25.87	22.96	5.98	30.29	2.39	3.31	1.5	9.44	0.08	0.56	0.36	0.17	50	
NCS HC93803	Slag	55.59	12.22	6.91	18.02	1.05	0.61	2.18	2.78	0.036	0.021	0.069	0.034	50	
NCS HC93804	Slag	22.3	31.11	16.36	4.18	10.99	11.73	5.21	6.01	0.503	0.095	0.128	0.051	50	
NCS HC93805	Slag	30.86	42.4	20.5	2.14	1.7	1.94	0.2	1.95	0.038	0.023	0.24	0.061	50	
NCS HC93806	Slag	50.73	8.17	3.39	23.79	9.67	7.37	0.45	0.88	0.022	0.032	0.052	0.047	50	

Section 6 Gas in Metal

Number	Name	Chemical Composition(Percent)		Unit Size (in g)	Form				
		C	S						
NCS NS 11003	C&S in Steel	0.322	0.020	100	chip				
NCS NS 11011	C&S in Steel	0.235	0.039	100	chip				
NCS NS 11012	Pure Iron	0.0016	0.0063	100	chip				
NCS NS 11013	Pure Iron	0.0066	0.0056	150	chip				
NCS NS11015b	Ultra-Low C and S in Pure Iron	0.0006	0.0017	50	chip				
NCS NS 11026	C&S in Steel	0.041	0.0039	100	chip				
NCS NS 11039	C&S in Steel	0.0051	0.0058	100	chip				
NCS NS 11040	C&S in Steel	0.019	0.0116	100	chip				
NCS NS 11041	C&S in Steel	0.004	0.0053	100	chip				
Number	Name	Chemical Composition(µg/g)		Unit Size (in g)	Form				
		N	O						
NCS NS 11037	O, N, in steel	1090	66	50	D4.0×5.0mm				
NCS NS 11030	O in Copper		2.8		D6.0×110mm				
NCS NS 11031	O in Copper		10	20	D4.8×6.5mm				
NCS NS 11032	O in Copper		18	20	D4.8×6.5mm				
NCS NS 11033	O in Copper		135	20	D4.8×6.5mm				
NCS NS 11035	O in Copper		479	20	D4.8×6.5mm				
NCS NS 11036	O in Copper		208	20	D4.8×6.5mm				
NCS NS 11038	O in Copper		376	25	D4.8×6.5mm				
Number	Name	Chemical Composition(Percent)				Unit Size (in g)	Form		
		O(%)	N(%)	H(%)	Sample weight	Sample size (mm)			
NCS NS 11043	O, N in steel	0.0041	0.0381	0.00005	0.5g	D 6.35	Ball		
Number	Name	Chemical Composition(Percent)			Sample Weight(g)	Sample Size(mm)	Sample form	Unit Size (in g)	Form
		O	N	H					
NCS NS 11044	O, N, H in Stainless steel	0.0025	0.058	0.00020	1.0±0.1	D6.35		50	Ball
NCS NS 11045	O, N, H in Stainless steel	0.0048	0.026	0.00020	1.0±0.1	D6.35		50	Ball
NCS NS 11046	N in Stainless steel		0.0067		1.0±0.1	D6.35		50	Ball
NCS NS 11047	N in Stainless steel		0.2076		0.50g/piece	D4.0x5.0	stick	50	
Number	Name	Chemical Composition(Percent)		Unit Size (in g)	Form				
		C	S						
NCS NS 11048	C, S in steel	0.067	0.058	100	Chip				
NCS NS 11049	C, S in steel	0.116	0.002	100	Chip				
Number	Name	Chemical Composition(Percent)			Unit Size (in g)	Form			
		O (%)	N (%)	Ball Weight(g)					
NCS NS11050	O, N in steel	0.012	0.0019	1	50	Ball			
NCS NS11051	O, N in steel	0.0012	0.0045	1	50	Ball			
NCS NS11052	O, N in steel	0.0062	0.00075	1	50	Ball			
NCS NS11053	O, N in steel	0.0022	0.0032	1	50	Ball			
NCS NS11054	O, N in steel	0.0023	0.0096	1	50	Ball			
NCS NS11055	O, N in steel	0.00058	0.0028	1	50	Ball			
NCS NS11056	O, N in steel	0.0107	0.142	1	50	Ball			
Number	Name	Chemical Composition(Percent)		Unit Size (in g)	Form				
		C	S						
NCS NS 13001	C&S in Steel	2.51	0.020	100	chip				
NCS NS 13005	C&S in Steel	0.485	0.024	100	chip				
NCS NS 13008	C&S in Steel	0.644	0.068	100	chip				
Number	Name	Chemical Composition(Percent)		Unit Size (goppellet)	Form				
		N							
NCS NS 13009	N in Steel	0.0078		100	chip				
NCS NS 13010	N in Steel	0.0096		100	chip				
NCS NS 13011	N in Steel	0.0099		100	chip				
NCS NS 13012	N in Steel	0.012		100	chip				

Section 6 Gas in Metal

Number	Name	Chemical Composition(Percent)		Unit Size (in g)	Form	
		C	S			
NCS NS 13020	C in Steel	0.1		100	chip	
NCS NS 13021	C in Steel	0.21		100	chip	
NCS NS 13022	C in Steel	0.37		100	chip	
NCS NS 13023	C in Steel	0.48		100	chip	
NCS NS 13024	C in Steel	0.59		100	chip	
NCS NS 13025	C in Steel	0.725		100	chip	
NCS NS 13026	C in Steel	0.81		100	chip	
NCS NS 13027	S in Steel		0.0105	70	chip	
NCS NS 13028	S in Steel		0.017	70	chip	
NCS NS 13029	S in Steel		0.037	70	chip	
NCS NS 13032	S in Steel		0.096	70	chip	
Number	Name	Chemical Composition(Percent)		Unit Size (in g or)	Form	
		N				
NCS NS 13033	N in Steel	0.0043		100	chip	
NCS NS 13034	N in Steel	0.0044		100	chip	
NCS NS 13036	N in Steel	0.0064		100	chip	
NCS NS 13037	N in Steel	0.0067		100	chip	
Number	Name	Chemical Composition(Percent)		Unit Size (in g or)	Form	
		N				
NCS NS 14001	N in Steel	0.0081		100	chip	
NCS NS 14003	N in Steel	0.0048		100	chip	
Number	Name	Chemical Composition		Unit Size (in g)	Form	
		C(%)	S(%)			
NCS NS 16001	C,S in pig iron	2.02	0.0014	100	chip	
NCS NS 16002	C,S in pig iron	3.60	0.0186	100	chip	
Number	Name	Chemical Composition		Unit Size (in g)	Form	
		[H] ppm	Weight of ball (g)			
NCS NS 20001a	H in steel	6.00	1.034	20	ball	
NCS NS 20025b	H in steel	1.1	1.034	20	ball	
Number	Name	Chemical Composition		Unit Size (in g)	Form	
		O ppm	N ppm			
NCS NS 20035b	O, N in steel	22	61	50	ball	
Number	Name	Chemical Composition(Percent)			Unit Size (in g)	Form
		O(%)	N(%)	Mass of the ball(g)	Diameter of the ball(mm)	
NCS NS 20049	O, N in steel	0.0058	0.0040	1.056	6.35	50 ball
NCS NS 20050	O, N in steel	0.0166	0.0026	1.047	6.35	50 ball
Number	Name	Chemical Composition		Unit Size (in g)	Form	
		O	N			
NCS NS 18018	O, N in Steel	0.0043	0.0136	50		
NCS NS 18019	O, N in Steel		0.0135	50		
NCS NS 18020	O, N in Steel	0.0029	0.0018	50		
NCS NS 18021	O, N in pure iron powder	0.188	0.0077	25		
NCS NS 18022	O, N in pure iron powder	0.205	0.0029	25		
NCS NS 18023	O, N in pure iron powder	0.543	(0.0065)	25		

Section 6 Gas in Metal

Number	Name	Chemical Composition(Percent)				Unit Size (in g)	Form
		C	S				
NCS NS 18003	C, S in Steel	0.082	0.035			100	chip
NCS NS 18004	C, S in Steel	0.171	0.0102			100	chip
NCS NS 18005	C, S in Steel	0.204	0.022			100	chip
NCS NS 18006	C, S in Steel	0.282	0.033			100	chip
NCS NS 18007	C, S in Steel	0.312	0.026			100	chip
NCS NS 18008	C, S in Steel	0.376	0.028			100	chip
NCS NS 18009	C, S in Steel	0.415	0.020			100	chip
NCS NS 18010	C, S in Steel	0.455	0.019			100	chip
NCS NS 18011	C, S in Steel	0.543	0.012			100	chip
NCS NS 18012	C, S in Steel	0.610	0.0095			100	chip
NCS NS 18013	C, S in Steel	0.890	0.022			100	chip
NCS NS 18014	C, S in Steel	0.990	0.0041			100	chip
NCS NS 18015	C, S in Steel	1.09	0.018			100	chip
NCS NS 18016	C, S in Steel	1.19	0.0080			100	chip
NCS NS 18024	C, S in Steel	0.121	0.013			100	
NCS NS 18025	C, S in Steel	0.15	0.013			100	
NCS NS 18026	C, S in Steel	0.357	0.013			100	
NCS NS 18027	C, S in Steel	0.586	0.039			100	
NCS NS 18028	C, S in Steel	0.755	0.0098			100	
NCS NS 18029	C, S in Steel	1.01	0.02			100	
Number	Name	Chemical Composition(Percent)				Unit Size (in g)	Form
		O	N	Ball weight (g)	Ball diameter(mm)		
NCS NS 21003b	O and N in Bearing Steel	0.0012	0.0055	1.0673±0.0010	6.26	50	ball
NCS NS 21004a	O and N in Bearing Steel	0.0022	0.0044	1.0673±0.0010	6.26	50	ball
NCS NS 21004b	O, N in steel	0.0025	0.0038	1.0		50	
Number	Name	Chemical Composition(Percent)			Unit Size (in g)	Form	
		O	N	H			
NCS NS 21012-1	O, N, H in Titanium Alloy	0.076	0.0090	0.0010			bar
NCS NS 21012-2	O, N, H in Titanium Alloy	0.096	0.0052	0.0009			bar
Number	Name	Chemical Composition(Percent)			Unit Size (in g)	Form	
		N					
NCS NS 21013-1	N in Steel	0.075			100	chip	
NCS NS 21013-2	N in Steel	0.175			100	chip	
NCS NS 21013-3	N in Steel	0.222			100	chip	
NCS NS 21013-4	N in Steel	0.313			100	chip	
NCS NS 21013-5	N in Steel	0.540			100	chip	
NCS NS 21013-6	N in Steel	0.66			100	chip	
Number	Name	Chemical Composition(Percent)				Unit Size (in g)	Form
		C	S				
NCS NS 21014	C, S in steel	0.0021	0.0052		100		
NCS NS 21015	C, S in steel	0.0010	0.0015		100		
NCS NS 21015a	C, S in steel	0.0012	0.0017		100		
Number	Name	Chemical Composition				Unit Size (in g)	Form
		[H] ppm					
NCS NS 20042	H in stainless steel	3.55			20	ball	
Number	Name	Chemical Composition(Percent)				Unit Size	Form
		H(ppm)	O (%)	N (%)	Ball Weight (g)	Ball size(mm)	
NCS NS20001b	Hydrogen in Steel	6.6					20pieces, 1g/piece
NCS NS20006d	Hydrogen in Steel	1.9					20pieces, 1g/piece
NCS NS20025c	Hydrogen in Steel	0.9					20pieces, 1g/piece
NCS NS21002d	O, N in Bearing Steel		0.0005	0.0057	1.048±0.001g	D 6.35	50pieces, 1g/piece

Section 6 Gas in Metal

Number	Name	Chemical Composition ($\mu\text{g/g}$)					Unit Size (in g)	Form
NCS NS 21002	O N in Stainless Steel	O	N				50 Pieces	ball
		8.4 \pm 0.6	57 \pm 1					
NCS NS 21006	O N in G Cr15	94.3	264				50 Pieces	ball
Number	Name	Chemical Composition (Percent)					Unit Size (in g)	Form
		C	S					
NCS NS 28004	C S in Steel	0.416	0.022				100	chip
NCS NS 28005	C S in Steel	0.462	0.0096				100	chip
Number	Name	Chemical Composition (Percent)					Unit Size (in g)	Form
		C	S	O	N	mass(g/p)		
NCS NS 28021	C S in Steel	0.16	0.028				100	chip
NCS NS 28025	C S in Steel	0.330	0.024				100	chip
NCS NS 28027	C S in Steel	0.523	0.017				100	chip
NCS NS 28029	C S in Steel	0.465	0.020				100	chip
NCS NS 28031	C S in Steel	0.985	0.012				100	chip
NCS NS 28040	O, N in steel			0.0125	0.0021	1	50	
NCS NS 28041	O, N in steel			0.0015	0.0042	1	50	
Number	Name	Chemical Composition ($\mu\text{g/g}$)					Unit Size (in g)	Form
		[H]						
NCS NS 35001	H in steel	2.9					20 pieces	
NCS NS 35001a	H in steel	3.0					20 pieces	
NCS NS 35002	H in steel	7.2					20 pieces	
NCS NS 35003	H in steel	0.8					20 pieces	
NCS NS 35003a	H in steel	0.9					20 pieces	
NCS NS 35003b	H in steel	1.3					20 pieces	
NCS NS 35004	H in steel	1.8					20 pieces	
NCS NS 35005	H in steel	2.2					20 pieces	
NCS NS 35006	H in steel	4.1					20 pieces	
Number	Name	Chemical Composition ($\mu\text{g/g}$)					Unit Size (in g)	Form
		O	N	H				
NCS NS 35007	O, N, H in steel	33	305	5.8			20 pieces	
NCS NS 35008	O, N, H in steel	38	330	1.6			20 pieces	
Number	Name	Chemical Composition ($\mu\text{g/g}$)					Unit Size (in g)	Form
		[H]						
NCS NS35009	H in steel	0.5					20 pieces	
NCS NS35009a	H in steel	0.6					20 pieces	
Number	Name	Chemical Composition (Percent)					Unit Size (in g)	Form
		O(%)	N(%)					
NCS NS 41007	O N in steel	0.0029	0.0037				20 pieces	
Number	Name	Chemical Composition (Percent)					Unit Size (in g)	Form
		O	N	mass(g/p)				
NCS NS 28036	O and N in Steel	0.0065	0.0067	1		50	ball	
NCS NS 28037	O and N in Steel	0.0035	0.0081	1		50	ball	
NCS NS 28037a	O and N in Steel	0.0043	0.0100	1		50	ball	
NCS NS 28038	O and N in Steel	0.0037	0.0253	0.5		50	ball	

Section 6 Gas in Metal

Number	Name	Chemical Composition(Percent)		Unit Size (in g)	Form		
		C	S				
NCS NS 93004	C. S in Steel	0.293	0.040	100	chip		
NCS NS 93005	C. S in Steel	0.357	0.018	100	chip		
NCS NS 93008	C. S in Steel	0.251	0.022	100	chip		
NCS NS 93009	C. S in Steel	0.310	0.031	100	chip		
NCS NS 93011	C. S in Steel	0.512	0.0095	100	chip		
NCS NS 93012	C. S in Steel	0.375	0.046	100	chip		
NCS NS 93014	C. S in Steel	0.195	0.030	100	chip		
Number	Name	Chemical Composition(Percent)		Unit Size (in g)	Form		
		O (%)	N (%)				
NCS NS93017	O, N in steel	0.00049	0.0042	50 pieces			
NCS NS93018	O, N in steel	0.0117	0.0023	50 pieces			
NCS NS93019	O, N in steel	0.0021	0.0035	50 pieces			
NCS NS93020	O, N in steel	0.0029	0.0036	50 pieces			
NCS NS93021	O, N in steel	0.0160	0.0017	50 pieces			
NCS NS93022	O, N in steel	0.0130	0.0038	50 pieces			
NCS NS93023	O, N in steel	0.0078	0.0023	50 pieces			
NCS NS93024	O, N in steel	0.0011	0.0055	50 pieces			
NCS NS93025	O, N in steel	0.0157	0.0018	10 pieces			
NCS NS93026	O, N in steel	0.0011	0.0055	10 pieces			
NCS NS93027	O, N in steel	0.0120	0.0022	50 pieces			
Number	Name	Chemical Composition		Unit Size (in g)	Form		
		[H] ppm	N(%)				
NCS NS 57012	N in Titanium Alloy		0.013	10	stick		
Number	Name	Chemical Composition(Percent)		Unit Size (in g)	Form		
		C	S				
NCS NS11057	Carbon and Sulphur in cast iron	3.98	0.079	50			
NCS NS11058	Carbon and Sulphur in cast iron	3.76	0.022	50			
NCS NS11059	Carbon and Sulphur in cast iron	1.95	0.143	50			
NCS NS11060	Carbon and Sulphur in cast iron	2.93	0.101	50			
Number	Name	Chemical Composition(Percent)			Unit Size (in g)	Form	
		O (%)	N (%)	H(%)	Ball Weight (g)	Ball size(mm)	
NCS NS11061	O, N in carbon steel	0.0016	0.0036		1.06±0.01	D 6.35	50piece
NCS NS11062	O, N in carbon steel	0.0012	0.0022		1.06±0.01	D 6.35	50piece
NCS NS11063	O,N in stainless steel	0.003	0.044		0.52±0.01	D 5.00	50piece
NCS NS11064	O,N in stainless steel	0.0051	0.028		1.07±0.01	D 6.35	50piece
NCS NS11065	O,N in stainless steel	0.0019	0.007		1.07±0.01	D 6.35	50piece
NCS NS11066	O,N in bearing steel	0.00042	0.005		1.04±0.01	D 6.35	50piece
NCS NS11067	O,N in bearing steel	0.00044	0.0061		1.04±0.01	D 6.35	50piece
NCS NS11068	O,N in bearing steel	0.0003	0.0028		1.04±0.01	D 6.35	50piece
NCS NS11069	O,N in bearing steel	0.0011	0.0036		1.00±0.01	D 4.20x9.6	50piece
NCS NS11070	O,N in bearing steel	0.0012	0.0037		1.00±0.01	D 4.20x9.6	50piece
NCS NS11071	O,N in bearing steel	0.00065	0.0068		1.00±0.01	D 6.35	50piece
NCS NS11072	O, N in carbon steel	0.018	0.0014		1.07±0.01	D 6.35	50piece
NCS NS11073	O,N in stainless steel	0.0034	0.019		0.52±0.01	D 5.00	50piece
NCS NS11074	O, N in carbon steel	0.011	0.0018		1.05±0.01	D 6.35	50piece
NCS NS11075	O,N in bearing steel	0.0014	0.0089		1.05±0.01	D 6.35	50piece
NCS NS11076	O, N in carbon steel	0.014	0.0052		1.00±0.01	D 6.35	50piece
NCS NS11077	O,N,H in stainless steel	0.0036	0.034	0.00018	1.04±0.01	D 6.35	50piece
NCS NS11078	O,N,H in stainless steel	0.0031	0.031	0.00058	1.04±0.01	D 6.35	50piece
NCS NS11079	O, N, H in carbon steel	0.0075	0.0049	0.00007	1.05±0.01	D 6.35	50piece
NCS NS11080	H in stainless steel			0.00064	1.06±0.01	D 6.35	20piece
NCS NS11081	H in stainless steel			0.00027	1.00±0.01	D 4.10X10	20piece
NCS NS11082	H in stainless steel			0.00072	1.01±0.01	D 3.80X12	20piece
NCS NS11083	H in stainless steel			0.00013	1.06±0.01	D 6.35	20piece
NCS NS11084	H in stainless steel			0.00022	1.06±0.01	D 6.35	20piece

Section 6 Gas in Metal

Number	Name	Chemical Composition(Percent)			Unit Size (in g)	Form
		C	S			
NCS NS11085	Carbon and Sulphur in Alloy	0.087	0.0053		100	
NCS NS11086	Carbon and Sulphur in Alloy	0.116	0.002		100	
NCS NS11087	Carbon and Sulphur in Alloy	0.113	0.0023		100	
NCS NS11088	Carbon and Sulphur in Alloy	0.411	0.004		100	
Number	Name	Chemical Composition(Percent)			Unit Size (in g)	Form
		O	N	Ball Weight (g)		
NCS NS28042	O and N in Carbon Steel	0.0033	0.0047	1	50pieces , 1g/piece	
NCS NS28043	O and N in Carbon Steel	0.0021	0.0034	1	50pieces , 1g/piece	
NCS NS28044	O and N in Carbon Steel	0.0023	0.0026	1	50pieces , 1g/piece	
NCS NS93028	O, N in steel	0.0221	0.002	0.5g	50pieces , 0.5g/piece	
NCS NS93029	O, N in steel	0.0024	0.0826	1g	50pieces , 1g/piece	
NCS NS93030	O, N in steel	0.0033	0.0233	1g	50pieces , 1g/piece	
NCS NS93031	O, N in steel	0.0044	0.0214	1g	50pieces , 1g/piece	
Number	Name	Chemical Composition(Percent)			Size	
		O	N	H		
NCS NS11089	O, N, H in titanium alloy	0.045	0.005	0.0014	2x2x120 mm , 5 pieces	
NCS NS11090	O, N, H in titanium alloy	0.285	0.0034	0.0017	2x2x120 mm , 5 pieces	
NCS NS11091	O, N, H in titanium alloy	0.07	0.0095	0.012	2x2x120 mm , 5 pieces	
NCS NS11092	O, N, H in titanium alloy	0.13	0.03	0.0097	2x2x120 mm , 5 pieces	
NCS NS11093	O, N, H in titanium alloy	0.144	0.0097	0.027	2x2x120 mm , 5 pieces	
Number	Name	Chemical Composition(Percent)			Size	
		O (%)	N (%)	Ball Weight(g)		
NCS NS11094	O, N in steel	0.0019	0.0062	1	D6.35mm , 50 pieces	
NCS NS11095	O, N in steel	0.0022	0.081	1	D6.35mm , 50 pieces	
NCS NS11096	O, N in steel	0.0042	0.022	1	D6.35mm , 50 pieces	
NCS NS11097	O, N in steel	0.0008	0.0072	1	D6.35mm , 50 pieces	
NCS NS11098	O, N in steel	0.0031	0.003	1	D6.35mm , 50 pieces	
NCS NS11099	O, N in steel	0.01	0.069	0.5	D5.00mm , 50 pieces	
Number	Name	Chemical Composition(Percent)			Unit Size (in g)	
		O				
NCS NS51002-1	Oxygen in Niobium powder	0.073			80	
NCS NS51002-2	Oxygen in Niobium powder	0.141			80	
NCS NS51002-3	Oxygen in Niobium powder	0.366			80	
NCS NS51002-4	Oxygen in Niobium powder	0.67			80	
NCS NS51002-5	Oxygen in Niobium powder	1.06			80	

Section 7 Nonferrous Metal(Chip)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)											Unit Size (in g)	
		Cu	Sn	Zn	Mg	P	Ni	Cr	Mn	Fe	Ti	Si		
NCS HC 28933	Low Tin Aluminum Alloy	2.53	7.05				1.88				0.32		0.56	75
NCS HC 28934	Low Tin Aluminum Alloy	1.52	7.40				0.77				0.31		3.83	75
NCS HC 28938	ZL202	9.91		0.23	0.076					0.192	0.575		0.50	75
NCS HC 28939	ZL203	3.91		0.235						0.187	0.57		0.52	75
NCS HC 28942	LD6	2.28		0.053	0.65		0.0048	0.037	0.423	0.397	0.076	0.476		50
NCS HC 28944	LD8	2.29		0.065	1.33		1.38		0.081	1.17	0.055	0.99		100
NCS HC 28945	LD9	3.41		0.073	0.60		1.73		0.22	0.70	0.024	0.575		50
NCS HC 28951	LY16	7.44		0.166	0.076		0.032		0.63	0.247	0.146	0.196		100
NCS HC 28959	AL-2	0.073							0.0050	0.35				90
NCS HC 28960	AL-1	0.0082							0.0020	0.20				70
NCS HC 28961	AL-3	0.115						0.010	0.79					70
NCS HC 28963	AL-0	0.011							0.0029	0.18				70
NCS HC 28966	ZL103A	1.79		0.200	0.345	0.012		0.32	0.23					75
NCS HC 28967	ZL104A	0.300		0.242	0.280			0.35	0.175					75
NCS HC 28968	ZL105A	1.62		0.264	0.425		0.099		0.164	0.22				50
NCS HC 28969	ZL106A	1.74		0.213	0.27				0.362	0.28				75
NCS HC 28970	ZL108A	1.42		0.157	0.39		0.027		0.378	0.275				100
NCS HC 28971	ZL108+RE	1.88		0.23	0.56				0.60	0.224				100
NCS HC 28973	ZL108A+RE	1.71		0.593	0.697		0.0245		0.44	0.39				100
NCS HC 28974	ZL107	3.73		0.385	0.071		0.048		0.062	0.51	0.005	7.03		50
			Ti	Si	RE									
NCS HC 28959	AL-2	0.0015	0.52	0.075										
NCS HC 28960	AL-1	0.0015	0.20	0.143										
NCS HC 28961	AL-3	0.0025	0.79	0.163										
NCS HC 28963	AL-0	0.0022	0.15	0.92										
NCS HC 28966	ZL103A	0.0032	5.96											
NCS HC 28967	ZL104A		9.38											
NCS HC 28968	ZL105A		5.68											
NCS HC 28969	ZL106A		8.35											
NCS HC 28970	ZL108A		10.14											
NCS HC 28971	ZL108+RE	0.026	9.74	0.72										
NCS HC 28973	ZL108A+RE	0.0105	11.70	1.06										
Number	Name	Chemical Composition(Percent)							Unit Size (in g)					
		Cu	Zn	Mg	Ni	As	Ti	Si						
NCS HC 41913	LD7	2.18	0.0094	1.58	1.15	1.22	0.12	0.094					100	
NCS HC 41915	Al-00	0.0034				0.106		0.099					100	
NCS HC 41916	LD2	1.07		0.758		0.332	0.080	1.05					100	
NCS HC 41917	ZL103	2.55	0.097	0.55		0.33		5.66					100	
NCS HC 41918	ZL108	1.29	0.2	0.74		0.23	0.01	11.87					100	

Section 7 Nonferrous Metal(Chip)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)												Unit Size (in g)
		Cu	Sn	Pb	Zn	Mg	Ni	Mn	Fe	Ti	Si	Be	Zr	
NCS HC 50920	Aluminum Alloy	1.14	0.0071	0.038	0.084	1.44	1.04	0.38	0.19		12.74			100
NCS HC 50922	Aluminum Alloy					0.028		1.53	0.282	0.117	0.216			100
NCS HC 50923	Aluminum Alloy	4.43	0.0075	0.044	0.152	0.028		0.094	0.662	0.154	1.22		0.101	100
NCS HC 50924	Aluminum Alloy	0.114			0.141	4.96		0.274	0.392	0.142	1.22			100
NCS HC 50928	Aluminum Alloy	3.99	0.0096	0.041	0.19	0.085		0.23	0.26		7.21			100
NCS HC 50931	Aluminum Alloy	0.28			12.80	0.14		0.26	0.27		6.93			100
NCS HC 50932	Aluminum Alloy	1.45	margin	0.016	0.042	0.18	0.58	0.33	0.20	0.12	5.12	0.037		100
NCS HC 50933	Aluminum Alloy	1.57	margin	0.016	0.043	0.12	0.60	0.25	0.26	0.1	9.57	0.17		100
NCS HC 50934	Aluminum Alloy	0.096	margin	0.0085	0.043	1.62	0.60	0.088	0.18		5.87			100
NCS HC 50937	Aluminum Alloy	3.98			0.175	1.49			0.482		0.673			100
Number	Name	Chemical Composition(Percent)							Unit Size (in g)					
		Cu	Sn	Fe	As	Sb	Bi							
NCS HC 50942	Aluminum Alloy	0.376	9.81	0.0023	0.068	14.88	0.072						100	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
		Cu	Zn	Mg	Ni	Cr	Mn	Fe	Sb	Ti	Si			
NCS HC 53902	Aluminum Alloy	0.095	0.10	0.02			1.38	0.38			0.18			50
NCS HC 53906	Aluminum Alloy	4.12	0.25	0.52	0.083		0.35	0.44		0.051	0.60			100
NCS HC 53907	Aluminum Alloy	6.31	0.11	0.086	0.094	0.19	0.39	0.26		0.038	0.45			100
NCS HC 53908	Aluminum Alloy	0.098	0.08	2.30	0.048		0.29	0.55		0.096	0.40			100
NCS HC 53913	Aluminum Alloy	0.11	0.16	0.055	0.0061		0.080	0.49		0.012	5.55			100
NCS HC 53914	Aluminum Alloy	0.015	0.096	0.010	0.0048		0.20	0.48		0.11	11.75			100
NCS HC 53916	Aluminum Alloy	1.52	6.17	2.44		0.17	0.39	0.23			0.29			100
NCS HC 53917	Aluminum Alloy	0.21	0.053	4.98	0.011		0.16	0.51		0.0098	0.40			100

Section 7 Nonferrous Metal(Chip) 2)Copper & Copper Alloy

Number	Name	Chemical Composition(Percent)								Unit Size (in g)			
		Cu	Al	Sn	Zn	P	Fe	Si					
NCS HC 28901	H68	68.55			31.33	0.023	0.0105				100		
NCS HC 28907	Q Sn4-0.3			4.02		0.322					100		
NCS HC 28910	Q Sn7-0.2	92.62		7.11		0.185					100		
NCS HC 28911	Q Sn6.5-0.1			6.25		0.21					100		
NCS HC 28912	Q Sn6.5-0.1			6.44		0.137					100		
NCS HC 28913	Q Sn6.5-0.4			6.35		0.137					100		
NCS HC 28920	ZQ Al9-2		8.29				0.14	2.09			100		
NCS HC 28922	ZQ Al10-3-1.5		9.17				2.98	1.64			100		
NCS HC 28927	H68	68.52			31.4	0.0023	0.0105				100		
NCS HC 28931	Tin Bronze			6.54		0.136					100		
Number	Name	Chemical Composition(Percent)											Unit Size (in g)
		Cu	Sn	Pb	Zn	S	P	Ni	Fe	Sb	Bi	Si	
NCS HC 41904	ZQ Sn3-7-5-1	81.45	4.08	6.16	6.96		1.07						100
NCS HC 41905	ZQ Sn17-4-4	72.25	4.24	17.62	5.37								100
NCS HC 41909	Tin-Phosphor Bronze	93.72	5.79				0.423						150
NCS HC 41910	Tin-Phosphor Bronze	92.85	6.82				0.238						100
NCS HC 41911	Tin-Phosphor Bronze	91.73	7.93				0.106						100
NCS HC 41912	Tin-Phosphor Bronze	93.70	5.79	0.021			0.372		0.011	0.006		0.001	100
NCS HC 41924	Phosphor Bronze	92.85	6.82				0.238						150
NCS HC 41925	Phosphor Bronze	91.73	7.92				0.106						150
NCS HC 41926	Phosphor Bronze	93.70	5.79	0.021			0.372		0.011	0.0058		0.0012	150
Number	Name	Chemical Composition(Percent)											Unit Size (in g)
		Cu	Al	Sn	Pb	Zn	P	Mn	Fe	As	Sb	Bi	
NCS HC 43909	Q Al9-2		9.80					2.46					80
NCS HC 43914	H Sn62-1	61.67		0.89	0.089		0.0070		0.090		0.0048	0.0018	60
NCS HC 43918	H Sn70-1A	70.04		0.91						0.039			100
NCS HC 43919	H Al177-2A	77.39	2.04							0.044			100
NCS HC 43925	Q Sn6-6-2			5.94	2.90	6.06							50
Number	Name	Chemical Composition(Percent)											Unit Size (in g)
		Cu	Al	Sn	Pb	Zn	Mg	P	Mn	Fe	Sb	Bi	
NCS HC 45913	H Pb59-1	58.87			1.30					0.022			100
NCS HC 45914	H Te59-1	59.22	0.46	0.54					0.73	0.88			100
NCS HC 45915	Tin Bronze			3.55	1.97	3.92							100
NCS HC 45916	Iron Bronze	58.00	0.26	0.54	0.19			0.0076	0.73	0.89	0.0091	0.0024	50
NCS HC 45918	Aluminum Bronze				0.019	20.81	0.033	0.0048	0.32	0.47	0.0020	0.0019	100
NCS HC 45918	Aluminum Bronze		Si	As	Ni								
		0.146	0.0098	14.87									
Number	Name	Chemical Composition(Percent)								Unit Size (in g)			
		Cu	Al	Sn	Pb	P	Fe	Sb	Bi				
NCS HC 50902	Copper Alloy	77.05	2.35		0.054		0.046	0.0043	0.0020				100
NCS HC 50904	Copper Alloy	57.54			0.78	0.012	0.78	0.0082	0.0020				100
NCS HC 50907	Copper Alloy	90.31		0.50	0.035	0.0064	0.044	0.0043	0.0020				100
NCS HC 50911	74-3	74.54			2.82	0.0069	0.11	0.0070	0.0018				100
Number	Name	Chemical Composition(Percent)					Unit Size (in g)						
		Cu	Sn	Sb									
NCS HC 28979	Ch Pb Sb 14-5	0.38	5.14	14.20			100						
Number	Name	Chemical Composition(Percent)								Unit Size (in g)			
		Al	Fe	Mn	Ni	Pb	Si	Zn	C				
NCS HC93901	High Manganese Aluminum Bronze	10.97	5.41	10.16	3.02	0.034	0.183	0.114	0.034				100
NCS HC93902	High Manganese Aluminum Bronze	9.6	4.21	11.53	2.72	0.018	0.107	0.224	0.029				100
NCS HC93903	High Manganese Aluminum Bronze	8.16	3.22	13.52	2.42	0.014	0.147	0.312	0.025				100
NCS HC93904	High Manganese Aluminum Bronze	7.84	3.16	14.53	2.14	0.025	0.062	0.464	0.03				100
NCS HC93905	High Manganese Aluminum Bronze	6.51	2.46	16.69	1.81	0.011	0.047	0.517	0.027				100
NCS HC93906	High Manganese Aluminum Bronze	4.73	1.85	18.62	1.53	0.0012	0.013	0.628	0.011				100

Section 7 Nonferrous Metal(Chip)

3)Lead Base Alloy

Number	Name	Chemical Composition(Percent)					Unit Size			
		Cu	Sn	Pb	Sb	Bi	(in g)			
NCS HC 28986	Pb60 Sn40	0.027	40.54	59.02	0.354	0.056	100			
NCS HC 28987	Pb90 Sn10		10.12	89.84			100			
Number	Name	Chemical Composition(Percent)								Unit Size
		Cu	Al	Sn	Zn	Fe	As	Sb	Bi	(in g)
NCS HC 39901	Lead Base Alloy	1.63		15.69	0.105	0.041	0.065	16.01	0.028	100
NCS HC 39902	Lead Base Alloy	1.25		19.57	0.104	0.030	0.041	13.81	0.038	100
NCS HC 39903	Lead Base Alloy	2.62	0.0021	11.01	0.035	0.037	0.052	13.86	0.054	100
NCS HC 39904	Lead Base Alloy	0.5		7.44	0.0052		0.095	12.02	0.069	100
NCS HC 39905	Lead Base Alloy	0.31		4.81	0.0068		0.115	10.04	0.103	100
Number	Name	Chemical Composition(Percent)						Unit Size		
		Cu	Sn	Pb	As	Sb	Bi	(in g)		
NCS HC 41919	Lead Base Bearing Alloy	1.98	15.97	65.73	0.014	16.09	0.024	100		
NCS HC 41920	Lead Base Bearing Alloy	2.88	5.69	76.22	0.012	15.02	0.0075	100		
Number	Name	Chemical Composition(Percent)				Unit Size				
		Cu	Sn	As	Sb	(in g)				
NCS HC 50956	Lead Base Bearing Alloy	0.38	5.16	0.15	15.94	100				

Section 7 Nonferrous Metal(Chip)

4)Tin Base Alloy

Number	Name	Chemical Composition(Percent)						Unit Size (in g)				
		Cu	Sn	Pb	As	Sb	Bi					
NCS HC 28988	Ch Sn Sb4-4	4.54			0.020	4.93	0.006	100				
NCS HC 28989	Ch Sn Sb8-4	4.9			0.016	8.07	0.085	100				
NCS HC 28990	Ch Sn Sb9-7	8.00			0.027	9.00	0.008	100				
NCS HC 28994	Pb50 Sn50		51.15	48.80				100				
Number	Name	Chemical Composition(Percent)								Unit Size (in g)		
		Cu	Sn	Pb	Zn	Fe	As	Sb	Bi		Ag	
NCS HC 35902	Tin-Lead Solder	0.030	50.12					0.232	0.046		100	
NCS HC 35903	Tin-Lead Solder	0.00090	30.12		(0.000083)		0.0034	1.73	0.127	0.047	100	
NCS HC 35904	Tin-Lead Solder	0.0024	39.84		(0.000086)		0.0019	0.809	0.024	1.08	100	
NCS HC 35905	Tin-Lead Solder	0.0019	49.72		(0.000086)		0.0032	0.409	0.021	3.61	100	
NCS HC 35907	Tin-Lead Solder	0.0062	89.81		(0.000040)		0.013	0.036	0.0200	0.0024	100	
NCS HC 35908	Tin-Lead Solder	0.029	3.66		0.000080		0.011	6.59	0.0045	0.0032	100	
NCS HC 35910	Tin	0.029	99.79	0.076		0.0092	0.018	0.052	0.021		stick200	
Number	Name	Chemical Composition(Percent)										Unit Size (in g)
		Ag	Cu	Bi	Sb	Pb	Fe	As	Cd	Ni	Al	
NCS HC 35912	Tin-Silver-Copper Solder	0.284	0.590	0.048	0.096	0.043	0.0037	0.0002	0.0020	0.0008	(0.0004)	50
NCS HC 35913	Tin-Copper Solder	0.087	0.557	0.047	0.086	0.042	0.0085	0.0019	0.0020	0.071	(0.0004)	50
Number	Name	Chemical Composition(Percent)							Unit Size (in g)			
		Cu	Al	Zn	Mn	Fe	As	Sb		Bi		
NCS HC 39906	Tin Base Alloy	2.07		0.0028	18.36	0.049	0.036	13.54	0.029		100	
NCS HC 39907	Tin Base Alloy	3.55	0.0036		9.30	0.038	0.070	12.03	0.064		100	
NCS HC 39908	Tin Base Alloy	6.36	0.0029	0.0021	12.17	0.063	0.100	9.62	0.089		100	
NCS HC 39909	Tin Base Alloy	6.97		0.0035	0.20	0.064	0.102	7.95	0.079		100	
NCS HC 39910	Tin Base Alloy	4.64		0.0087	0.41	0.120		5.94	0.099		100	
Number	Name	Chemical Composition(Percent)						Unit Size (in g)				
		Cu	Sn	Pb	As	Sb	Bi					
NCS HC 41921	Tin Base Alloy	4.06	86.61	1.32	0.018	7.87	0.014	100				
NCS HC 41922	Tin Base Alloy	6.72	80.27	1.20	0.020	11.81	0.012	100				
Number	Name	Chemical Composition(Percent)							Unit Size (in g)			
		Cu	Pb	Zn	Fe	As	Sb	Bi				
NCS HC 50945	Z Ch Sn Sb D12-3-10	0.409	9.90		0.069			90				
NCS HC 50947	Tin Alloy	7.11	0.323	0.0046	0.073	0.065	9.14	0.073	100			
NCS HC 50949	Tin Alloy	4.09	9.90	0.0021	0.069	0.069	12.10	0.064	100			

Section 7 Nonferrous Metal(Chip)

5)Zinc Alloy

Number	Name	Chemical Composition(Percent)						Unit Size (in g)	
NCSHC28974	Z Zn Al4	Cu	Al	Mg				100	
NCSHC28975	Z Zn Al4-1	1.56	4.48	0.074				100	
Number	Name	Chemical Composition(Percent)					Unit Size (in g)		
NCSHC35911	Zinc oxit	Zn	PbO	Mn	CdO	L.O.I	0.387	30	
Number	Name	Chemical Composition(Percent)							Unit Size (in g)
NCSHC50955	Zinc Alloy	Cu	Al	Sn	Pb	Mg	Fe	Cd	100
		3.93	7.49	0.0049	0.0092	0.048	0.058	0.0056	
Number	Name	Chemical Composition(Percent)							Unit Size (in g)
NCSHC52904	Zinc	Cu	Sn	Pb	Fe	As	Sb	Cd	200
		0.00012		0.0029	0.0011			0.011	

Section 7 Nonferrous Metal(Chip)

6)Titanium Alloy & Other

Number	Name	Chemical Composition($\mu\text{g/g}$)										Unit Size (in g)			
		CeO ₂	Pr ₆ O ₁₁	Tb ₄ O ₇	Dy ₂ O ₃	SiO ₂ (Base)	CaO	Fe ₂ O ₃	NiO	CuO	PbO				
NCSHC44901	Yttrium Oxide	4.80	10.4	10.50	21.6	34.0	8.15	6.19	9.8	1.51	2.81				10
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		C	Si	Cr	Mo	Al	Zr	Ni	Cu	Mn	RE	Zn	V	Fe	
NCSHC57901	Rare-Earth Magnesium						0.57	0.00093	0.00089	0.028	0.85	5.76			50
NCSHC57905	Titanium Alloy	0.0093				5.60								0.24	50
NCSHC57906	Titanium Alloy	0.00060			1.71	6.79	2.18						2.25	0.040	50
NCSHC57907	Titanium Alloy	0.015		2.95		3.13							14.99	0.077	50
NCSHC57908	Titanium Alloy	0.0063				1.82				1.20				0.041	50
NCSHC57909	Titanium Alloy	0.013				6.20							4.02	0.17	50
NCSHC57910	Titanium Alloy	0.018	0.30	1.49	2.66	6.33								0.46	50
NCSHC57911	Titanium Alloy	0.0084	0.29		3.41	6.66	1.80							0.048	50
Number	Name	Chemical Composition($\mu\text{g/g}$)													Unit Size (in g)
		La ₂ O ₃	CeO ₂	Pr ₆ O ₁₁	Nd ₂ O ₃	Sm ₂ O ₃	Gd ₂ O ₃	Tb ₄ O ₇	Dy ₂ O ₃	Ho ₂ O ₃	Er ₂ O ₃	Tm ₂ O ₃	Yb ₂ O ₃	Lu ₂ O ₃	
NCSHC63901	Europia	12.8	3.4	15.2	11.8	15.3	16.8	12.2	11.3	15.0	12.6	10.2	16.3	11.6	5
Number	Name	Chemical Composition(Percent)													Unit Size (in g)
		Y ₂ O ₃	Na ₂ O	SiO ₂ (Acid)	SiO ₂ (Base)	CaO	Fe ₂ O ₃	NiO	CuO	ZnO	PbO ₂				
NCSHC63901	Europia	17.2	31.1	30.0	(40.5)	13.0	7.2	9.6	6.7	15.6	8.0				
Number	Name	Chemical Composition(Percent)										Unit Size (in g)			
		C	Si	Al	Fe	Mo	V	Zr	Cd	Pb	Cu		Sn		
NCSHC11901	Titanium Alloy	0.012	0.261	6.74	0.097	3.37		1.52							20
NCSHC11902	Titanium Alloy	0.0093	0.018	6.24	0.191		4.19								20
NCSHC11903a	Zinc Alloy			0.111	0.032				0.005	0.0041	0.0046	0.0047			100
NCSHC11903b	Zinc Alloy			0.112	0.033				0.0045	0.0042	0.0043	0.0042			100

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Ni	Zn	Ti	Pb	Sn	Sr	
NCS HS 49701c-1	Aluminium Alloy	10.38	1.02	0.413	0.309	0.178	0.137	0.387	0.055	0.226	0.096	0.129	Φ62×30
NCS HS 49701c-2	Aluminium Alloy	6.91	0.840	1.41	0.452	0.888	0.099	0.711	0.078	0.098	0.047	0.086	Φ62×30
NCS HS 49701c-3	Aluminium Alloy	12.64	0.212	2.07	0.540	0.753	0.066	0.216	0.042	0.074	0.021	0.062	Φ62×30
NCS HS 49701c-4	Aluminium Alloy	3.49	0.324	3.56	0.970	1.21	0.054	0.977	0.112	0.033	0.0079	0.039	Φ62×30
NCS HS 49701c-5	Aluminium Alloy	7.9	0.486	0.076	0.800	0.041	0.174	0.049	0.022	0.014	0.0027	0.023	Φ62×30
NCS HS 49701c-6	Aluminium Alloy	0.894	1.37	5.08	0.078	1.53	0.025	1.33	0.182	0.174	0.107	0.0057	Φ62×30
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Zr		
NCS HS 49702a-1	Aluminium Alloy	0.352	0.136	0.191	0.153	0.78	0.087	0.137	6.66	0.070	0.087		Φ62×30
NCS HS 49702a-2	Aluminium Alloy	0.455	0.261	0.684	0.501	2.95	0.186	0.076	4.53	0.104	0.059		Φ62×30
NCS HS 49702a-3	Aluminium Alloy	0.275	0.358	1.37	0.329	2.19	0.143	0.037	5.15	0.037	0.106		Φ62×30
NCS HS 49702a-4	Aluminium Alloy	0.168	0.584	2.09	0.664	1.40	0.262	0.128	2.83	0.156	0.154		Φ62×30
NCS HS 49702a-5	Aluminium Alloy	0.078	0.430	1.54	0.819	0.274	0.367	0.205	8.3	0.0061	0.0085		Φ62×30
NCS HS 49702a-6	Aluminium Alloy	0.756	0.770	2.88	0.066	4.07	0.129	0.015	1.27	0.260	0.203		Φ62×30
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti			
NCS HS 49703b-1	Aluminium Alloy	0.526	0.212	0.035	0.864	1.16	0.085	0.059	0.294	0.108			Φ62×30
NCS HS 49703b-2	Aluminium Alloy	1	0.344	0.237	0.507	0.658	0.144	0.042	0.217	0.049			Φ62×30
NCS HS 49703b-3	Aluminium Alloy	1.28	0.432	0.522	0.234	0.911	0.340	0.030	0.091	0.028			Φ62×30
NCS HS 49703b-4	Aluminium Alloy	0.224	0.652	0.730	1.17	0.442	0.232	0.094	0.162	0.072			Φ62×30
NCS HS 49703b-5	Aluminium Alloy	1.59	0.822	0.011	1.48	0.081	0.311	0.120	0.040	0.0094			Φ62×30
NCS HS 49703b-6	Aluminium Alloy	0.048	0.099	0.990	0.043	1.50	0.043	0.016	0.367	0.160			Φ62×30
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Ni	Zn	Ti	Pb			
NCS HS 49704b-1	Aluminium Alloy	0.588	0.671	0.184	0.851	0.0097	0.024	0.028	0.018	0.0043			Φ62×30
NCS HS 49704b-2	Aluminium Alloy	0.423	0.537	0.097	1.20	0.032	0.049	0.114	0.032	0.0027*			Φ62×30
NCS HS 49704b-3	Aluminium Alloy	0.287	0.313	0.129	1.52	0.052	0.075	0.047	0.06	0.0067			Φ62×30
NCS HS 49704b-4	Aluminium Alloy	0.145	0.242	0.057	1.93	0.073	0.109	0.081	0.088	0.017			Φ62×30
NCS HS 49704b-5	Aluminium Alloy	0.695	0.803	0.228	0.544	0.101	0.152	0.165	0.123	0.019			Φ62×30
NCS HS 49704b-6	Aluminium Alloy	0.05	0.149	0.0063	2.38	0.006	0.0046	0.017	0.01	0.0011			Φ62×30
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Fe	Si	Mn	Mg	Ni	Cu	Ti	Zn				
NCS HS 49705-1	LD7	0.454	0.904	0.095	0.428	1.55	4.51	0.021	0.140				Φ62×30
NCS HS 49705-2	LD7	1.21	0.657	0.138	1.37	1.12	2.51	0.088	0.238				Φ62×30
NCS HS 49705-3	LD7	0.900	1.22	0.239	0.897	2.02	1.51	0.120	0.334				Φ62×30
NCS HS 49705-4	LD7	1.61	0.371	0.184	1.80	0.624	3.33	0.055	0.166				Φ62×30
NCS HS 49705-5	LD7	1.87	1.53	0.287	2.26	0.153	0.927	0.161	0.367				Φ62×30
NCS HS 49705-6	LD7	0.115	0.090	0.054	0.074	2.25	5.55	0.00095	0.084				Φ62×30
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Na		
NCS HS 49706a-1	Aluminium Alloy	0.238	0.202	0.045	0.168	3.95	0.252	0.038	0.098	0.300*	0.0028*		Φ62×30
NCS HS 49706a-2	Aluminium Alloy	0.462	0.340	0.101	0.327	2.24	0.219	0.233	0.052	0.046	0.00011		Φ62×30
NCS HS 49706a-3	Aluminium Alloy	0.702	0.444	0.153	0.495	2.90	0.123	0.071	0.143	0.149	0.0011		Φ62×30
NCS HS 49706a-4	Aluminium Alloy	0.788	0.624	0.184	0.677	1.39	0.314	0.097	0.235	0.188	0.00014		Φ62×30
NCS HS 49706a-5	Aluminium Alloy	0.102	0.093	0.0085	0.051	5.09	0.042	0.011	0.030	0.019			Φ62×30
NCS HS 49706a-6	Aluminium Alloy	0.898	0.684	0.21	0.826	0.611	0.359	0.122	0.306	0.215			Φ62×30

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)										Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Be	
NCS HS 49707a-1	Aluminium Alloy	0.195	0.301	0.167	0.137	8.46	0.106	0.164	0.118	0.142	0.0033	Φ62×30
NCS HS 49707a-2	Aluminium Alloy	0.304	0.364	0.090	0.366	5.33	0.192	0.060	0.225	0.044	0.0028	Φ62×30
NCS HS 49707a-3	Aluminium Alloy	0.377	0.458	0.128	0.526	6.38	0.140	0.089	0.156	0.116	0.0068	Φ62×30
NCS HS 49707a-4	Aluminium Alloy	0.459	0.584	0.229	0.677	7.04	0.246	0.169	0.586	0.087	0.0011	Φ62×30
NCS HS 49707a-5	Aluminium Alloy	0.078	0.134	0.0074	0.065	10.14	0.0123	0.146	0.038	0.0070	0.0087	Φ62×30
NCS HS 49707a-6	Aluminium Alloy	0.600	0.696	0.243	0.865	3.76	0.273	0.035	0.285	0.192	0.00056	Φ62×30
Number	Name	Chemical Composition(Percent)								Unit Size (mm)		
		Si	Fe	Cu	Mn	Mg	Ni	Zn	Ti			
NCS HS 49708a-1	Aluminium Alloy	0.448	0.690	2.14	0.341	2.15	0.111	0.054	0.088			Φ62×30
NCS HS 49708a-2	Aluminium Alloy	0.525	0.453	3.25	1.00	0.737	0.021	0.134	0.017			Φ62×30
NCS HS 49708a-3	Aluminium Alloy	0.127	0.350	4.11	0.532	1.51	0.037	0.147	0.039			Φ62×30
NCS HS 49708a-4	Aluminium Alloy	0.230	0.213	5.82	0.240	0.950	0.057	0.320	0.181			Φ62×30
NCS HS 49708a-5	Aluminium Alloy	0.103	0.772	1.21	0.084	2.64	0.210	0.712	0.013			Φ62×30
Number	Name	Chemical Composition(Percent)										Unit Size (mm)
		Fe	Si	Mn	Mg	Ni	Cu	Ti	Zn	Sn	Pb	
NCS HS 49709-1	XZL	0.504	10.89	0.252	1.35	1.33	0.624	0.080	0.209	0.020	0.016	Φ62×30
NCS HS 49709-2	XZL	0.216	11.35	0.614	0.843	0.827	0.930	0.115	0.165	0.120	0.136	Φ62×30
NCS HS 49709-3	XZL		7.08		1.14	1.00	1.13	0.056	0.098	0.0085	0.039	Φ62×30
NCS HS 49709-4	XZL	0.310	12.48	0.790	0.801	0.623	1.27	0.139	0.133	0.012	0.031	Φ62×30
NCS HS 49709-5	XZL	0.082	8.69	0.094	1.55	1.59	0.410	0.021	0.251	0.018	0.0025	Φ62×30
NCS HS 49709-6	XZL		14.56		0.513	0.353	1.46	0.179	0.049	0.013	0.043	Φ62×30
Number	Name	Chemical Composition(Percent)									Unit Size (mm)	
		Si	Fe	Cu	Mn	Mg	Ni	Zn	Ti	Ga		
NCS HS 49710d-1	Pure Aluminum	0.168	0.137	0.010	0.010	0.0074	0.0051	0.017	0.011	0.012		Φ62×30
NCS HS 49710d-2	Pure Aluminum	0.052	0.058	0.0052	0.0030	0.0027	0.0036	0.0044	0.0010	0.0034		Φ62×30
NCS HS 49710d-3	Pure Aluminum	1.18	1.20	0.093	0.054	0.068	0.033	0.083	0.037	0.020		Φ62×30
NCS HS 49710d-4	Pure Aluminum	0.363	0.334	0.035	0.025	0.025	0.052	0.045	0.018	0.029		Φ62×30
NCS HS 49710d-5	Pure Aluminum	0.577	0.709	0.051	0.091	0.043	0.089	0.136	0.086	0.040		Φ62×30
NCS HS 49710d-6	Pure Aluminum	0.913	0.920	0.028	0.205	0.143	0.114	0.188	0.064	0.050		Φ62×30
Number	Name	Chemical Composition(Percent)										Unit Size (mm)
		Fe	Si	Mn	Mg	Cr	Ni	Cu	Ti	Zn	Zr	
NCS HS 49711-1	LY11	0.825	1.25	1.24	0.692	0.092	0.161	1.88	(0.121)	0.401	(0.191)	Φ62×30
NCS HS 49711-2	LY11	0.657	0.893	0.932	0.298	0.223	0.113	2.89	(0.169)	0.343	(0.250)	Φ62×30
NCS HS 49711-3	LY11	0.427	0.552	0.561	0.481	0.157	0.045	4.03	0.047	0.236	0.137	Φ62×30
NCS HS 49711-4	LY11	0.188	0.236	0.241	(0.108)	0.193	0.089	5.47	0.078	0.125	0.048	Φ62×30
NCS HS 49711-5	LY11	(1.08)	1.59	(1.54)	(0.922)	(0.311)	(0.220)	0.658	(0.225)	0.051	0.0064	Φ62×30
NCS HS 49711-6	LY11	0.122	0.101	(0.071)	0.035	0.011	0.0095	6.61	(0.108)	(0.566)	(0.319)	Φ62×30

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Si	Mg	Mn	Fe	Cu	Zn	Ni	Cr	Ti	Zr	Ga		
NCS HS 49715a-1	Aluminum Concentrate	0.00098	0.0025	0.00007	0.00083	0.00088	0.00040	0.00025	0.00053	0.00011	(0.00026)		Φ40×35	
NCS HS 49715a-2	Aluminum Concentrate	0.0015	0.00039	0.0019	0.0016	0.00017	0.0025	0.0026	0.00097	0.00084	0.0025	0.0032	Φ40×35	
NCS HS 49715a-3	Aluminum Concentrate	0.010	0.0079	0.0066	0.012	0.0061	0.0073	0.0063	0.0040	0.0030	0.0053	0.0082	Φ40×35	
NCS HS 49715a-4	Aluminum Concentrate	0.031	0.0092	0.010	0.033	0.012	0.011	0.011	0.0069	0.012	0.014	0.011	Φ40×35	
NCS HS 49715a-5	Aluminum Concentrate	0.0073	0.0052	0.0041	0.0091	0.0033	0.0047	0.0059	0.0018	0.0021	0.0057	0.0012	Φ40×35	
NCS HS 49715a-6	Aluminum Concentrate	0.044	0.014	0.012	0.063	0.014	0.016	0.042	0.015	0.017	0.019	0.015	Φ40×35	
NCS HS 49715a-7	Aluminum Concentrate	0.111	0.0022	0.0030	0.397	0.0020				0.012			Φ40×35	
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Si	Mg	Mn	Fe	Cu	Zn	Sn	Pb	Ni	Ti	Sr		
NCS HS 49716b-1	ADC12	7.53	0.478	0.702	0.665	0.505	3.04	0.096	0.011	0.152	0.018	0.0021	Φ62×30	
NCS HS 49716b-2	ADC12	8.87	0.145	0.558	1.33	3.35	0.794	0.129	0.028	0.266	0.0093	0.0053	Φ62×30	
NCS HS 49716b-3	ADC12	10.79	0.211	0.363	1.01	2.58	1.25	0.197	0.056	0.318	0.045	0.111	Φ62×30	
NCS HS 49716b-4	ADC12	11.98	0.294	0.265	0.855	1.95	1.89	0.242	0.076	0.473	0.013	0.038	Φ62×30	
NCS HS 49716b-5	ADC12	13.82	0.392	0.108	0.289	1.19	2.42	0.310	0.129	0.647	0.020	0.029	Φ62×30	
NCS HS 49716b-6	ADC12	6.27	0.064	0.052	1.92	4.21	0.330	0.054	0.0041	0.079	0.0060	0.0002	Φ62×30	
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Cu	Mg	Mn	Fe	Si	Zn	Ti	Ni	V	Pb	Sn		
NCS HS 49717-1	DL18	0.0026	0.0032	0.0006	0.062	0.051	0.0016	0.0095	0.0026	0.0002	0.0046	(0.0001)	Φ62×30	
NCS HS 49717-2	DL18	0.015	0.011	0.017	0.193	0.194	0.030	0.036	0.014	0.237		0.171	Φ62×30	
NCS HS 49717-3	DL18	0.031	0.031	0.034	0.371	0.344	0.067	0.013	0.030		0.123		Φ62×30	
NCS HS 49717-4	DL18	0.104	0.093	0.046	0.940	0.933	0.096	0.054	0.050	0.121		0.119	Φ62×30	
NCS HS 49717-5	DL18	0.076	(0.056)	0.108	0.612	0.634	1.05	0.081	0.075		0.066		Φ62×30	
NCS HS 49717-6	DL18	0.134	0.127	0.142	0.748	0.789	0.522	0.114	0.104	0.027		0.071	Φ62×30	
NCS HS 49717-7	DL18	0.048	0.021	0.070	0.505	0.491	1.50	(0.138)	0.133		0.0052		Φ62×30	
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Sb	Ga	Cd	Ca	B	Ce	Nd						
NCS HS 49717-1	DL18	(0.0004)	(0.00024)	(0.0008)	(0.00005)	(0.0014)	0.00031	0.0002						
NCS HS 49717-2	DL18	0.040		0.105										
NCS HS 49717-4	DL18	0.043		0.048										
NCS HS 49717-5	DL18		0.0085		(0.0047)	0.0080								
NCS HS 49717-6	DL18	0.097		0.011										
NCS HS 49717-7	DL18		0.032											
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Si	Fe	Cu	Mn	Mg	Zn	Ti	Pb	Sn	Be	Zr		
NCS HS 49718-1	Aluminium Alloy	6.03	0.194	0.303	0.411	0.095	0.375	0.008	0.020	0.011	0.0086	0.047	Φ62×30	
NCS HS 49718-2	Aluminium Alloy	6.36	0.413	0.254	0.317	0.207	0.257	0.188	0.031	0.021	0.013	0.085	Φ62×30	
NCS HS 49718-3	Aluminium Alloy	7.15	0.654	0.412	0.248	0.301	0.225	0.132	0.063	0.031	0.017	0.162	Φ62×30	
NCS HS 49718-4	Aluminium Alloy	7.55	0.911	0.158	0.165	0.401	0.061	0.088	0.088	0.048	0.024	0.191	Φ62×30	
NCS HS 49718-5	Aluminium Alloy	8.19	1012	0.065	0.070	0.501	0.0068	0.043	0.123	0.061	0.055	0.174	Φ62×30	
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Ni				
NCS HS 49719-1	Aluminium Alloy	0.352	0.098	0.099	0.094	0.745	0.374	0.088	0.046	0.011			Φ62×30	
NCS HS 49719-2	Aluminium Alloy	0.547	0.215	0.200	0.198	0.580	0.275	0.126	0.092	0.042			Φ62×30	
NCS HS 49719-3	Aluminium Alloy	0.654	0.294	0.328	0.289	0.647	0.236	0.181	0.109	0.062			Φ62×30	
NCS HS 49719-4	Aluminium Alloy	0.794	0.411	0.435	0.410	0.395	0.145	0.223	0.142	0.100			Φ62×30	
NCS HS 49719-5	Aluminium Alloy	0.972	0.517	0.540	0.539	0.277	0.072	0.277	0.173	0.138			Φ62×30	

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)										Unit Size (mm)	
		Si	Fe	Cu	Mn	Mg	Zn	Ti	Ni	Cr	Zr		
NCS HS 49720-1	Aluminium Alkly	0.044	0.122	0.015	0.095	0.842	5.78	0.010	0.011	0.021	0.067		Φ62×30
NCS HS 49720-2	Aluminium Alkly	0.115	0.206	0.041	0.243	1.16	5.20	0.019	0.039	0.077	0.104		Φ62×30
NCS HS 49720-3	Aluminium Alkly	0.177	0.312	0.086	0.397	1.35	4.41	0.035	0.067	0.119	0.138		Φ62×30
NCS HS 49720-4	Aluminium Alkly	0.284	0.396	0.116	0.556	1.94	3.50	0.059	0.099	0.179	0.204		Φ62×30
NCS HS 49720-5	Aluminium Alkly	0.401	0.481	0.119	0.719	1.76	2.78	0.073	0.145	0.222	0.235		Φ62×30
Number	Name	Chemical Composition(Percent)										Unit Size (mm)	
		Si	Fe	Cu	Mn	Mg	Zn	Ti	Ni	Cr	Zr		
NCS HS 49726-1	Aluminium Alloy	0.027	0.034	0.0025	0.0017	1.20	0.0072	0.0090	0.0093				Φ62×30
NCS HS 49726-2	Aluminium Alloy	0.0033	0.0097	0.0065	0.0017	1.88	0.013	0.00084	0.00088				Φ62×30
NCS HS 49726-3	Aluminium Alloy	0.0073	0.012	0.0038	0.0042	1.63	0.0047	0.0042	0.0036				Φ62×30
NCS HS 49726-4	Aluminium Alloy	0.013	0.027	0.011	0.011	2.10	0.0012	0.011	0.0098				Φ62×30
NCS HS 49726-5	Aluminium Alloy	0.015	0.0040	0.012	0.0013	2.13	0.0024	0.00060	0.00028				Φ62×30
Number	Name	Chemical Composition(Percent)					Unit Size (mm)						
		Pb	Cd	As	Cu								
NCS HS 49727-1	Aluminium Alloy	0.0022	0.0038	0.017	0.082**		Φ62×30						
NCS HS 49727-2	Aluminium Alloy	0.011	0.019	---	0.469**		Φ62×30						
NCS HS 49727-3	Aluminium Alloy	0.029	0.010	0.038	0.284**		Φ62×30						
NCS HS 49727-4	Aluminium Alloy	0.019	0.027	0.011	0.080**		Φ62×30						
NCS HS 49727-5	Aluminium Alloy			0.0057			Φ62×30						
NCS HS 49727-6	Aluminium Alloy			0.024			Φ62×30						
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si%	Fe%	Cu%	Mn%	Mg%	Ni%	Zn%	Ti%	Be ppm	Li ppm	Cd ppm	
NCS HS 49728-1	Aluminium Alloy	0.044	0.108	0.066	0.017	0.0030	0.0082	0.012	0.0054	0.79	0.53	8.4	Φ62×30
NCS HS 49728-2	Aluminium Alloy	0.104	0.359	0.042	0.020	0.0016	0.046	0.029	0.018	3.0	1.6	45	Φ62×30
NCS HS 49728-3	Aluminium Alloy	0.375	0.480	0.0080	0.080	0.011	0.070	0.087	0.038	3.2	2.0	80	Φ62×30
NCS HS 49728-4	Aluminium Alloy	0.594	0.665	0.072	0.032	0.036	0.095	0.027	0.031	20	8.8	67	Φ62×30
NCS HS 49728-5	Aluminium Alloy	0.772	0.828	0.072	0.0066	0.029	0.110	0.050	0.011	12	55	97	Φ62×30
NCS HS 49728-6	Aluminium Alloy	0.650	0.478	0.100	0.033	0.0086	0.098	0.030	0.028	7.8	4.2	42	Φ62×30
NCS HS 49728-7	Aluminium Alloy	1.03	0.932	0.111	0.096	0.046	0.118	0.079	0.075	26	48	223	Φ62×30
Number	Name	Chemical Composition(Percent)										Unit Size (mm)	
		Si	Fe	Cu	Mn	Mg	Cr	Zn	Li	Ti	Zr		
NCS HS 49729-1	Aluminium Alloy	0.069	0.076	0.0025**		6.00			1.23		0.091		Φ45×40
NCS HS 49729-2	Aluminium Alloy	0.086	0.129	0.0019**		5.49			2.25		0.073		Φ45×40
NCS HS 49729-3	Aluminium Alloy	0.222	0.227	0.042		4.29			1.98		0.109		Φ45×40
NCS HS 49729-4	Aluminium Alloy	0.056	0.163	0.040	0.015	4.95	0.023	0.022	1.35	0.026	0.057		Φ45×40
NCS HS 49729-5	Aluminium Alloy	0.129	0.075	0.012	0.053	3.84	0.047	0.094	1.50	0.079	0.140		Φ45×40
NCS HS 49729-6	Aluminium Alloy	0.132	0.055	0.100	0.045	3.81	0.046	0.093	1.54	0.091	0.168*		Φ45×40
NCS HS 49729-7	Aluminium Alloy	0.098	0.089	0.420	0.030	2.18	0.126*	0.058	1.03	0.128*	0.143		Φ45×40
NCS HS 49729-8	Aluminium Alloy	0.025	0.043	0.824	0.097	0.680	0.103	0.041	2.52	0.134	0.042		Φ45×40
NCS HS 49729-9	Aluminium Alloy	0.150	0.148	1.11	0.081	1.33	0.073	0.146	1.99	0.092	0.077		Φ45×40
NCS HS 49729-10	Aluminium Alloy	0.214	0.264	1.60	0.138	1.62	0.058	0.204*	1.63	0.070	0.061		Φ45×40
NCS HS 49729-11	Aluminium Alloy	0.118	0.112	1.22	0.032	0.193	0.021	0.107	2.12	0.010	0.082		Φ45×40
NCS HS 49729-12	Aluminium Alloy	0.136	0.094	1.46	0.082	0.291	0.029	0.118	2.48	0.0026	0.088		Φ45×40

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)						Unit Size (mm)							
		Ag	Cu	Mg	Li	Ti	Zr								
NCS HS 49730-1	Aluminium Alloy	0.224	2.45	0.584	1.76	0.104	0.045	Φ45×25							
NCS HS 49730-2	Aluminium Alloy	0.234	3.12	0.473	1.28	0.092	0.061	Φ45×25							
NCS HS 49730-3	Aluminium Alloy	0.425	3.83	0.417	0.387	0.025	0.097	Φ45×25							
NCS HS 49730-4	Aluminium Alloy	0.455	4.57	0.274	1.23	0.052	0.126	Φ45×25							
NCS HS 49730-5	Aluminium Alloy	0.59	5.43	0.190	0.954	0.027	0.142	Φ45×25							
Number	Name	Chemical Composition(Percent)						Unit Size (mm)							
		Ga	Li	Cd	B	Co	Mg								
NCS HS 49732-1	Aluminium Alloy	0.018	0.0054	0.0045	0.0058	0.0052	1.04	Φ62×30							
NCS HS 49732-2	Aluminium Alloy	—	0.00012	0.00022*	0.0010	—	1.09	Φ62×30							
NCS HS 49732-3	Aluminium Alloy	0.0093	0.00058	0.00023	0.0011	0.00025	0.092	Φ62×30							
NCS HS 49732-4	Aluminium Alloy	0.0097	0.039	0.019	0.0032	0.0037	0.106	Φ62×30							
NCS HS 49732-5	Aluminium Alloy	0.411	0.00010	0.00012	0.0015	0.00013*	2.67	Φ62×30							
NCS HS 49732-6	Aluminium Alloy	0.069	0.0042	0.052	0.00067	0.0098	0.629	Φ62×30							
NCS HS 49732-7	Aluminium Alloy	0.040	0.0023	0.0015	0.0040	0.0111	2.01	Φ62×30							
Number	Name	Chemical Composition(Percent)										Unit Size (mm)			
		Si	Fe	Cu	Mn	Mg	Zn	Ti	Ni	Zr	V				
NCS HS 49733-1	Aluminium Alloy	0.358	0.455	4.76	0.476	0.0020	0.007*	0.0037	0.0038	0.038	0.027	Φ62×30			
NCS HS 49733-2	Aluminium Alloy	0.257	0.380	5.53	0.387	0.021	0.049	0.071	0.017	0.103	0.061	Φ62×30			
NCS HS 49733-3	Aluminium Alloy	0.198	0.302	6.21	0.318	0.040	0.105	0.160	0.041	0.157	0.175	Φ62×30			
NCS HS 49733-4	Aluminium Alloy	0.159	0.199	6.64	0.161	0.062	0.157	0.123	0.069	0.236	0.116	Φ62×30			
NCS HS 49733-5	Aluminium Alloy	0.106	0.105	6.97	0.090	0.126	0.189	0.154*	0.090	0.197	0.170	Φ62×30			
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Ni	Zn	Cr	Ti	Zr	B	Sc	Be	
NCS HS 49734-1	Aluminium Alloy	0.246	0.361	0.013	1.11	4.85	0.013	0.101	0.214	0.0094	0.035	0.0010	0.031	0.00011	Φ45×30
NCS HS 49734-2	Aluminium Alloy	0.206	0.273	0.051	0.849	6.28	0.014	0.029	0.127	0.062	0.162	0.0020	0.103	0.0012	Φ45×30
NCS HS 49734-3	Aluminium Alloy	0.131	0.197	0.029	0.413	5.61	0.0097	0.044	0.023	0.029	0.092	0.0027	0.181	0.0034	Φ45×30
NCS HS 49734-4	Aluminium Alloy	0.050	0.155	0.072	0.140	7.11	0.035	0.135	0.134	0.178	0.220	0.0084	0.236	0.0051	Φ45×30
NCS HS 49734-5	Aluminium Alloy	0.100	0.299	0.097	0.783	7.30	0.108	0.076	0.066	0.079	0.055	0.0060	0.257	0.00051	Φ45×30
NCS HS 49734-6	Aluminium Alloy	0.049	0.089	0.012	0.341	5.19	0.0066	0.0080	0.014*	0.040	0.097*	—	0.349	0.0013	Φ45×30
NCS HS 49734-7	Aluminium Alloy	0.046	0.089	0.011	0.306	4.52	0.0058	0.0074	0.013*	0.039	0.088	—	0.535	0.0011	Φ45×30
Number	Name	Chemical Composition(Percent)			Unit Size (mm)										
		Hg	Pb	Cd											
NCS HS49735-1	Aluminium Alloy	0.0038	0.0023	0.0017	Φ62×30										
NCS HS49735-2	Aluminium Alloy	0.039	0.0060	0.0047	Φ62×30										
NCS HS49735-3	Aluminium Alloy	0.059	0.011	0.0088	Φ62×30										
NCS HS49735-4	Aluminium Alloy	0.0027	0.010	0.0085	Φ62×30										
NCS HS49735-5	Aluminium Alloy	0.0039	0.019	0.017	Φ62×30										
NCS HS49735-6	Aluminium Alloy	0.0062	0.035	0.037	Φ62×30										
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Zn	Ti	Ni	Cd	V	Na	Ga	Pb	
NCS HS 49736-1	Aluminium Alloy	0.658	0.847	0.030	0.687	1.39	0.052	0.039	0.0041	0.00017	0.102	0.0012*	0.020	0.0085	Φ62×30
NCS HS 49736-2	Aluminium Alloy	0.488	0.664	0.111	0.795	1.19	0.109	0.105	0.018	0.0028	0.068	0.00025	0.034	0.016	Φ62×30
NCS HS 49736-3	Aluminium Alloy	0.194	0.497	0.203	0.957	1.16	0.206	0.091	0.055	0.0042	0.056	0.00055	0.059	0.011	Φ62×30
NCS HS 49736-4	Aluminium Alloy	0.342	0.332	0.380	1.05	0.869	0.271	0.156	0.071	0.0044	0.033	0.0013	0.086	0.0051	Φ62×30
NCS HS 49736-5	Aluminium Alloy	0.056	0.209	0.298	1.18	0.712	0.330	0.201	0.086	0.0058	0.018	0.0016*	0.096	0.0016	Φ62×30

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Pb	Ti	Cd	Na	
NCS HS 49737-1	Aluminium Alloy	0.039	0.091	0.019	0.092	5.94	0.010	0.0070	0.327	0.0011	0.011	0.00011	0.00020	Φ62X30
NCS HS 49737-2	Aluminium Alloy	0.086	0.238	0.168	0.478	5.16	0.110	0.022	0.258	0.0075	0.129	0.0068	0.00076	Φ62X30
NCS HS 49737-3	Aluminium Alloy	0.138	0.314	0.072	0.370	4.56	0.067	0.044	0.197	0.0068	0.074	0.0053	0.0014	Φ62X30
NCS HS 49737-4	Aluminium Alloy	0.214	0.397	0.105	0.221	3.76	0.173	0.067	0.105	0.015	0.175	0.0087	0.0010*	Φ62X30
NCS HS 49737-5	Aluminium Alloy	0.296	0.471	0.209	0.601	2.94	0.220	0.107	0.050	0.023	0.235	0.019	0.00039*	Φ62X30
NCS HS 49737-6	Aluminium Alloy	0.116	0.284	0.056	0.342	4.25	0.041	0.022	0.055	0.0034	0.041	0.0011	0.00013	Φ62X30
Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Zr	Ca	Na	
NCS HS 49738-1	Aluminium Alloy	0.147	0.283	1.83	0.043	3.17	0.0026	0.0043	7.24	0.014	0.019	0.00048	0.00070	Φ62×30
NCS HS 49738-2	Aluminium Alloy	0.130	0.239	2.17	0.110	2.75	0.036	0.037	6.42	0.050	0.092	0.0023	0.0027	Φ62×30
NCS HS 49738-3	Aluminium Alloy	0.082	0.184	2.95	0.147	2.11	0.059	0.062	5.35	0.086	0.162	0.00023	0.00077*	Φ62×30
NCS HS 49738-4	Aluminium Alloy	0.019	0.041	3.48	0.207	1.88	0.101	0.104	4.60	0.134	0.198	0.0010	0.00014	Φ62×30
NCS HS 49738-5	Aluminium Alloy	0.055	0.113	2.43	0.254	1.40	0.130	0.133	3.95	0.164	0.207	0.0012	0.0011	Φ62×30
Number	Name	Chemical Composition(Percent)							Unit Size (mm)					
		Si	Fe	Cu	Mn	Mg	Zn	Ti						
NCS HS49739-1	Aluminium Alloy	8.90	0.655	0.041	0.348	0.043	0.021	0.032						Φ62X30
NCS HS49739-2	Aluminium Alloy	10.32	0.490	0.543	0.456	0.079	0.129	0.078						Φ62X30
NCS HS49739-3	Aluminium Alloy	10.71	0.417	0.233	0.541	0.093	0.067	0.092						Φ62X30
NCS HS49739-4	Aluminium Alloy	12.33	0.342	0.314	0.237	0.130	0.092	0.196						Φ62X30
NCS HS49739-5	Aluminium Alloy	14.28	0.247	0.468	0.150	0.163	0.157	0.195						Φ62X30
Number	Name	Chemical Composition(Percent)										Unit Size (mm)		
		Si	Fe	Cu	Mn	Mg	Zn	Pb	Sn	Ti	Zr			
NCS HS 49740-1	Aluminium Alloy	6.92	0.090	0.017*	0.101	0.538	0.295	0.010*	0.0096*	0.027	0.028			Φ62X30
NCS HS 49740-2	Aluminium Alloy	8.24	0.165	0.049	0.395	0.371	0.136	0.105	0.018*	0.069	0.207			Φ62X30
NCS HS 49740-3	Aluminium Alloy	9.21	0.435	0.079	0.608	0.303	0.234	0.046	0.0068	0.175	0.111			Φ62X30
NCS HS 49740-4	Aluminium Alloy	10.02	0.392	0.081	0.240	0.183	0.215	0.085	0.013	0.135	0.078			Φ62X30
NCS HS 49740-5	Aluminium Alloy	11.30	0.269	0.132	0.512	0.089	0.079	0.129	0.018	0.275	0.150			Φ62X30
Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Zn	Pb	Sn	Ti	Zr	Be		
NCS HS 49741-1	Aluminium Alloy	4.36	0.475	2.52	0.0187	0.163	0.010	0.0090	0.0063*	0.041	0.181	0.0047		Φ62X30
NCS HS 49741-2	Aluminium Alloy	3.69	0.364	2.01	0.134	0.317	0.067	0.029	0.017	0.118	0.172	0.021		Φ62X30
NCS HS 49741-3	Aluminium Alloy	4.89	0.294	1.45	0.245	0.421	0.151	0.051	0.019	0.154	0.107	0.011		Φ62X30
NCS HS 49741-4	Aluminium Alloy	5.05	0.186	1.02	0.347	0.600	0.201	0.088	0.014*	0.175	0.137	0.014		Φ62X30
NCS HS 49741-5	Aluminium Alloy	5.67	0.110	0.514	0.497	0.686	0.305	0.142	0.022	0.234	0.040	0.014		Φ62X30
Number	Name	Chemical Composition(Percent)							Unit Size (mm)					
		Si	Fe	Cu	Mn	Mg	Zn	Ti						
NCS HS 49742-1	Aluminium Alloy	6.03	0.076	0.080	0.040	0.140	0.038	0.083						Φ62X30
NCS HS 49742-2	Aluminium Alloy	6.53	0.238	0.131	0.130	0.211	0.121	0.127						Φ62X30
NCS HS 49742-3	Aluminium Alloy	7.17	0.396	0.179	0.211	0.290	0.206	0.136						Φ62X30
NCS HS 49742-4	Aluminium Alloy	7.79	0.571	0.243	0.313	0.381	0.304	0.219						Φ62X30
NCS HS 49742-5	Aluminium Alloy	8.00	0.758	0.295	0.404	0.494	0.422	0.223						Φ62X30
NCS HS 49742-6	Aluminium Alloy	5.57	0.076	0.065	0.011	0.584	0.013	0.0070						Φ62X30

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)										Unit Size (mm)				
		Si	Fe	Cu	Mn	Mg	Zn	Ni	Pb	Sn						
NCS HS 49744-1	Aluminium Alloy	6.78	0.166	4.64	0.531	0.063	0.097	0.024							Φ62×30	
NCS HS 49744-2	Aluminium Alloy	7.55	0.443	4.00	0.451	0.124	0.374	0.024	0.0059	0.043					Φ62×30	
NCS HS 49744-3	Aluminium Alloy	8.54	0.706	3.31	0.326	0.172	0.736	0.244	0.019	0.072					Φ62×30	
NCS HS 49744-4	Aluminium Alloy	9.10	0.998	2.92	0.204	0.239	0.977	0.414	0.065	0.113					Φ62×30	
NCS HS 49744-5	Aluminium Alloy	9.99	1.32	2.49	0.099	0.292	1.08	0.515	0.112	0.146					Φ62×30	
Number	Name	Chemical Composition(Percent)														Unit Size (mm)
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Pb	Sn	Sr	Ca		
NCS HS 49745-1	Aluminium Alloy	5.45	0.064	0.063	0.010	0.617	0.012	0.0014	0.146	0.0083	0.012	0.097	0.016	0.065	Φ62×30	
NCS HS 49745-2	Aluminium Alloy	5.94	0.214	0.0074	0.056	0.500	0.070	0.0053	0.069	0.049	0.073	0.014	0.144*	0.036	Φ62×30	
NCS HS 49745-3	Aluminium Alloy	7.63	0.049	0.098	0.160	0.426	0.0081	0.016	0.0091	0.018	0.0060	0.0058	0.031	0.0083	Φ62×30	
NCS HS 49745-4	Aluminium Alloy	6.93	0.108	0.015	0.075	0.096	0.051	0.0065	0.098	0.148	0.100	0.088	0.101	0.017	Φ62×30	
NCS HS 49745-5	Aluminium Alloy	6.62	0.220	0.042	0.117	0.198	0.030	0.029	0.039	0.179	0.027	0.046	0.067	0.0077	Φ62×30	
NCS HS 49745-6	Aluminium Alloy	8.62	0.278	0.027	0.109	0.313	0.040	0.020	0.034	0.105	0.045	0.033	0.0033*	0.0021	Φ62×30	
Number	Name	Chemical Composition(Percent)								Unit Size (mm)						
		Fe	Si	Mn	Ni	Cu	Al	Zn								
NCS HS 50704-1	ZLD202	0.15	0.37	1.21	1.27	10.00	margin	0.49						50×40×30		
NCS HS 50704-2	ZLD202	0.49	0.26	0.51	0.38	10.00	margin	1.70						50×40×30		
NCS HS 50704-3	ZLD202	0.99	1.00	0.21	0.78	10.00	margin	0.17						50×40×30		
NCS HS 50704-4	ZLD202	0.29	1.70	0.77	0.15	10.00	margin	0.28						50×40×30		
NCS HS 50704-5	ZLD202	1.38	0.67	0.33	0.24	10.00	margin	0.91						50×40×30		
Number	Name	Chemical Composition(Percent)											Unit Size (mm)			
		Fe	Si	Mn	Mg	Ni	Cu	Al	Zn	Sn	Pb					
NCS HS 50705-1	ZLD110	1.16	3.25	0.12	0.13	0.068	8.48	margin	0.124	0.0080	0.099			30×35×50		
NCS HS 50705-2	ZLD110	0.81	4.13	0.15	0.25	0.48	7.19	margin	0.18	0.0052	0.018			30×35×50		
NCS HS 50705-3	ZLD110	1.30	5.13	0.73	0.39	0.176	5.89	margin	0.69	0.017	0.071			30×35×50		
NCS HS 50705-4	ZLD110	0.50	6.21	0.46	0.58	0.30	4.81	margin	0.44	0.011	0.042			30×35×50		
NCS HS 50705-5	ZLD110	0.21	7.84	0.26	0.89	0.125	3.97	margin	0.26	0.028	0.028			30×35×50		
Number	Name	Chemical Composition(Percent)													Unit Size (mm)	
		Fe	Si	Mn	Mg	Ni	Cu	Al	Ti	Zn	Sn	Pb				
NCS HS 50707-1	ZLD109	0.17	14.06	0.078	0.64	0.62	0.34	margin	0.11	0.12	0.044	0.037		30×35×50		
NCS HS 50707-2	ZLD109	0.24	12.35	0.43	0.83	0.86	0.57	margin	0.14	0.43	0.0064	0.089		30×35×50		
NCS HS 50707-3	ZLD109	0.39	11.61	0.21	1.19	1.00	0.82	margin	0.19	0.19	0.016	0.058		30×35×50		
NCS HS 50707-4	ZLD109	0.58	10.64	0.28	1.28	1.58	1.18	margin	0.26	0.37	0.0074	0.14		30×35×50		
NCS HS 50707-5	ZLD109	0.91	9.25	0.12	1.95	2.04	1.91	margin	0.049	0.050	0.031	0.21		30×35×50		
Number	Name	Chemical Composition(Percent)											Unit Size (mm)			
		Fe	Si	Mn	Mg	Ni	Cu	Al	Ti	Zn	Sn	Pb				
NCS HS 50708-1	ZLD108	0.28	14.18	0.24	0.315	0.099	0.70	margin	0.145	0.084	0.0056	0.022		30×35×50		
NCS HS 50708-2	ZLD108	0.324	12.61	0.36	1.17	0.19	1.015	margin	0.156	0.235	0.0173	0.034		30×35×50		
NCS HS 50708-3	ZLD108	0.406	11.49	0.48	0.86	0.317	1.42	margin	0.18	0.106	0.011	0.052		30×35×50		
NCS HS 50708-4	ZLD108	0.90	9.97	0.644	0.655	0.42	1.77	margin	0.105	0.133	0.021	0.071		30×35×50		
NCS HS 50708-5	ZLD108	0.62	8.88	0.98	0.43	0.607	2.40	margin		0.487	0.038	0.12		30×35×50		

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)							Unit Size (mm)		
		Cu	Mg	Mn	Fe	Si	Zn	Sn			
NCS HS 50709a-1	ZLD101	0.086	0.090	0.091	0.29	11.93	0.14		35×35×40		
NCS HS 50709a-2	ZLD101	0.18	0.17	0.44	0.78	9.01	0.17	0.0075	35×35×40		
NCS HS 50709a-3	ZLD101	0.48	0.074		0.17	9.99	0.30	0.012	35×35×40		
NCS HS 50709a-4	ZLD101	0.29	0.31	0.24	1.12	6.28	0.10	0.0041	35×35×40		
NCS HS 50709a-5	ZLD101	0.82	0.48	0.7	0.42	5.32	0.50	0.019	35×35×40		
Number	Name	Chemical Composition(Percent)									Unit Size (mm)
		Fe	Si	Mn	Mg	Cu	Al	Zn	Sn	Pb	
NCS HS 50710-1	ZLD203		2.05	0.052	0.017	4.47	margin	0.070	0.006	0.020	30×35×50
NCS HS 50710-2	ZLD203	0.37	1.44	0.15	0.096	4.47	margin	0.091	0.022	0.025	30×35×50
NCS HS 50710-3	ZLD203	0.31	0.86	0.084	0.018	4.50	margin	0.30	0.014	0.043	30×35×50
NCS HS 50710-4	ZLD203	0.56	0.49	0.25	0.035	4.48	margin	0.16	0.012	0.072	30×35×50
NCS HS 50710-5	ZLD203	0.81	0.34	0.13	0.068	4.45	margin	0.30		0.13	30×35×50
NCS HS 50710-6	ZLD203	0.27	1.32	0.19	0.062	4.56	margin	0.14	0.0095	0.028	30×35×50
Number	Name	Chemical Composition(Percent)							Unit Size (mm)		
		Fe	Si	Mn	Mg	Cu	Al	Zn			
NCS HS 50711-1	ZLD401	0.43	7.00	0.38	0.10	0.68	margin	11.00		30×35×50	
NCS HS 50711-2	ZLD401	0.67	7.00	0.19	0.17	0.89	margin	11.00		30×35×50	
NCS HS 50711-3	ZLD401	1.01	7.00	0.28	0.20	0.24	margin	11.00		30×35×50	
NCS HS 50711-4	ZLD401	0.24	7.00	0.56	0.40	0.42	margin	11.00		30×35×50	
NCS HS 50711-5	ZLD401	0.15	7.00	0.95	0.65	0.15	margin	11.00		30×35×50	
Number	Name	Chemical Composition(Percent)						Unit Size (mm)			
		Cu	Mg	Mn	Fe	Si	Zn				
NCS HS 50712-1	ZLD203	0.28	3.78	0.48	1.00	1.73	0.41	30×35×50			
NCS HS 50712-2	ZLD203	0.17	4.34	0.32	0.70	0.85	0.22	30×35×50			
NCS HS 50712-3	ZLD203	1.10	5.30	0.172	0.46	1.13	0.164	30×35×50			
NCS HS 50712-4	ZLD203	0.055	6.57	0.11	0.29	0.65	0.11	30×35×50			
NCS HS 50712-5	ZLD203	0.036	7.68	0.063	0.17	0.48	0.071	30×35×50			
Number	Name	Chemical Composition(Percent)							Unit Size (mm)		
		Si	Mg	Mn	Fe	Cu	Zn	Ni			
NCS HS 50713-1	ZL3	6.50	0.30	0.14	0.12	5.42	0.18	0.088	30×35×40		
NCS HS 50713-2	ZL3	5.31	0.52	0.090	0.22	7.30	0.12	0.42	30×35×40		
NCS HS 50713-3	ZL3	4.27	0.19	0.23	0.26	9.01	0.59	0.61	30×35×40		
NCS HS 50713-4	ZL3	8.27		0.68	0.44	4.30	0.90	0.052	30×35×40		
NCS HS 50713-5	ZL3	6.40	0.67	0.42	0.68	6.18	0.37		30×35×40		

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Fe	Si	Mn	Mg	Ni	Cu	Ti	Zn	Sn	Pb	RE	
NCS HS 53703-1	Pure Aluminum	0.071	0.067	0.0077	0.0044	0.0092	0.015	0.012	0.0088				Φ38×32
NCS HS 53703-2	Pure Aluminum	0.166	0.133	0.029	0.017	0.019	0.0093	0.026	0.013				Φ38×32
NCS HS 53703-3	Pure Aluminum	0.59	0.58	0.014	0.022	0.032	0.291	0.041	0.122				Φ38×32
NCS HS 53703-4	Pure Aluminum	0.35	0.29	0.055	0.040	0.054	0.033	0.062	0.035	0.047	0.035	0.029	Φ38×32
NCS HS 53703-5	Pure Aluminum	1.31	1.28	0.112	0.103	0.100	0.079	0.093	0.073				Φ38×32
Number	Name	Chemical Composition(Percent)										Unit Size (mm)	
		Fe	Si	Mn	Mg	Ni	Cu	Ti	Zn	Cr	Be		
NCS HS53704-1	Al Alloy	1.17	0.907	1.04	1.71	0.153	0.222	0.218	0.293	0.130	0.000498		Φ38×32
NCS HS53704-2	Al Alloy	0.392	0.587	0.417	3.41	0.076	0.083	0.100	0.031	0.066	0.000158		Φ38×32
NCS HS53704-3	Al Alloy	0.654	0.379	0.215	4.72	0.102	0.117	0.168	0.178	0.391	0.00528		Φ38×32
NCS HS53704-4	Al Alloy	0.248	0.187	0.742	6.62	0.034	0.033	0.021	0.111	0.022	0.00146		Φ38×32
NCS HS53704-5	Al Alloy	0.122	0.082	0.102	7.81	0.023	0.012	0.060	0.047	0.183	0.00315		Φ38×32
Number	Name	Chemical Composition(Percent)						Unit Size (mm)					
		Si	Mg	Mn	Fe	Cu	Zn						
NCS HS 57701-1	AlSi6 Cu4	4.71	0.19	0.57	0.41	5.28	0.59	45×33×28					
NCS HS 57701-2	AlSi6 Cu4	8.61	0.18	0.40	0.63	1.45	0.79	45×33×28					
NCS HS 57701-3	AlSi6 Cu4	5.63	0.40	0.79	0.50	3.54	1.25	45×33×28					
NCS HS 57701-4	AlSi6 Cu4	6.17	0.21	0.46	0.56	3.98	0.30	45×33×28					
NCS HS 57701-5	AlSi6 Cu4	9.49	0.23	0.21	1.01	0.99	0.77	45×33×28					
NCS HS 57701-6	AlSi6 Cu4	10.40	0.53	0.30	0.79	2.27	1.16	45×33×28					
Number	Name	Chemical Composition(Percent)										Unit Size (mm)	
		Fe	Si	Zn	Cu	Mg	Mn	Ti	Ga	V	Cr		B
NCS HS 91701-1	Pure Aluminum	0.055	0.047	0.0081	0.0056	0.0024	0.0019	0.0018	0.0042	0.0012	0.0005	0.0005	Φ60×33
NCS HS 91701-2	Pure Aluminum	0.14	0.11	0.031	0.01	0.022	0.0084	0.0063	0.03	0.0052	0.0015	0.0006	Φ60×33
NCS HS 91701-3	Pure Aluminum	0.773	0.634	0.035	0.03	0.0096	0.017	0.015	0.026	0.0028	0.0048	0.0022	Φ60×33
NCS HS 91701-4	Pure Aluminum	0.325	0.203	0.126	0.058	0.067	0.026	0.029	0.012	0.0047	0.0099	0.0039	Φ60×33
NCS HS 91701-5	Pure Aluminum	0.435	0.347	0.074	0.097	0.038	0.042	0.048	0.05	0.0086	0.015	0.0097	Φ60×33
NCS HS 91701-6	Pure Aluminum	0.744	0.537	0.106	0.147	0.069	0.065	0.079	0.076	0.029	0.025	0.016	Φ60×33
Number	Name	Chemical Composition(Percent)								Unit Size (mm)			
		Fe	Si	Zn	Cu	Mg	Mn	Ti	Cr				
NCS HS 91702-1	Aluminum Alloy	0.587	0.109	0.004	0.306	0.189	0.414	0.002	0.176				Φ60×33
NCS HS 91702-2	Aluminum Alloy	0.457	0.199	0.012	0.202	0.396	0.314	0.0065	0.107				Φ60×33
NCS HS 91702-3	Aluminum Alloy	0.358	0.39	0.158	0.05	0.589	0.053	0.085	0.054				Φ60×33
NCS HS 91702-4	Aluminum Alloy	0.365	0.586	0.048	0.101	0.871	0.207	0.034	0.031				Φ60×33
NCS HS 91702-5	Aluminum Alloy	0.155	0.785	0.071	0.02	1.23	0.105	0.053	0.011				Φ60×33
NCS HS 91702-6	Aluminum Alloy	0.09	1.05	0.022	0.0092	1.51	0.021	0.011	0.0052				Φ60×33
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mg	Zn	Mn	Ti	Sn	Pb	Zr	Ni	
NCS HS 11901	Aluminum Alloy	7.18	0.459	0.210	0.43	0.179	0.335	0.123	0.011	0.056	0.117		Φ50×30
NCS HS 11902	Aluminum Alloy	8.24	0.464	1.50	0.52	0.178	0.485	0.225	0.010	0.048		0.012	Φ50×30
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mg	Zn	Mn	Ti	Ni	Zr	Sb	Ca	
NCS HS11723-1	Aluminum Alloy	11	0.23	0.0028	0.0025	0.0088	0.005	0.0085	0.004			0.014	D50×35 mm
NCS HS11723-2	Aluminum Alloy	8.52	0.219	0.0016	0.289	0.0074	0.41	0.038	0.0026	0.0023		0.03	D50×35 mm
NCS HS11723-3	Aluminum Alloy	11.82	0.168	1.51	0.76	0.008	0.63	0.0085	0.0043				D50×35 mm
NCS HS11723-4	Aluminum Alloy	7.27	0.124	0.0051	0.6	0.0048	0.0025	0.139	0.0028	0.0013		0.015	D50×35 mm
NCS HS11723-5	Aluminum Alloy	5.15	0.112	0.021	0.64	1.52	0.011	0.088	0.0034		0.14		D50×35 mm
Number	Name	Chemical Composition(Percent)							Unit Size (mm)				
		Ga	Sr	V	Pb	Sn	Be						
NCS HS11723-1	Aluminum Alloy	0.0142	0.04	0.012									
NCS HS11723-2	Aluminum Alloy	0.014	0.034		(0.0008)	<0.001#							
NCS HS11723-3	Aluminum Alloy		0.03	0.012	(0.0008)	<0.001#							
NCS HS11723-4	Aluminum Alloy	0.011		0.0106	(0.0007)	<0.001#	<0.00002#						
NCS HS11723-5	Aluminum Alloy			0.013	(0.0009)	<0.001#							

Section 8 Nonferrous Metal(Disk)

1)Aluminum & Aluminum Alloy

Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Mg	Fe	Cu	Mn	Zn	Ni	Ti	Cr	Ga	V	
NCS HS11724-1	Aluminum Alloy	0.62	0.512	0.108	0.0023	0.002	0.0018	0.0026	0.014	0.0019	0.013	0.024	D60×20 mm
NCS HS11724-2	Aluminum Alloy	0.61	0.98	0.125	0.266	0.0032	0.0024	0.0033	0.0088	0.058	0.012	0.022	D60×20 mm
NCS HS11724-3	Aluminum Alloy	0.45	0.568	0.117	0.0037	0.0024	0.0027	0.0035	0.0088	0.0021	0.013	0.018	D60×20 mm
NCS HS11724-4	Aluminum Alloy	0.94	0.881	0.126	0.046	0.479	0.0018	0.005	0.0086	0.126	0.012	0.023	D60×20 mm
NCS HS11794	Aluminum Alloy	0.099	0.0044	0.494	0.071	1.11	0.0022	0.0046	0.026				D50×20 mm
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Cu	Mg	Mn	Zn	Sn	Pb	Ni	Ti	Cr	
NCS HS28707-1	Aluminum Alloy	5.56	0.026	0.01	0.196	0.085	0.0064	0.0058	0.0053	0.0053	0.024	0.0051	Φ60×30mm
NCS HS28707-2	Aluminum Alloy	7.22	0.214	0.051	0.288	0.121	0.09	0.084	0.044	0.045	0.043	0.019	Φ60×30mm
NCS HS28707-3	Aluminum Alloy	6.83	0.068	0.093	0.357	0.049	0.032	0.017	0.014	0.011	0.088	0.01	Φ60×30mm
NCS HS28707-4	Aluminum Alloy	6.9	0.09	0.139	0.416	0.022	0.098	0.025	0.06	0.029	0.146	0.031	Φ60×30mm
NCS HS28707-5	Aluminum Alloy	6.26	0.373	0.191	0.497	0.207	0.148	0.036	0.101	0.067	0.153	0.096	Φ60×30mm
NCS HS28707-6	Aluminum Alloy	7.82	0.483	0.275	0.578	0.307	0.338	0.057	0.138	0.091	0.184	0.108	Φ60×30mm
Number	Name	Sr	Ca	V	Ga	Zr	Cd	Be	B	P			
NCS HS28707-1	Aluminum Alloy	0.0064	0.0027	0.0049	0.0054	0.0047	0.0013	0.0061		0.0018			
NCS HS28707-2	Aluminum Alloy	0.016	0.0006	0.032	0.059	0.006	0.0061	0.01	0.0006	0.0062			
NCS HS28707-3	Aluminum Alloy	0.043	0.034	0.085	0.011	0.044	0.012	0.022	0.0021	0.0035			
NCS HS28707-4	Aluminum Alloy	0.025	0.0067	0.12	0.021	0.021	0.035	0.034	0.0005	0.0023			
NCS HS28707-5	Aluminum Alloy	0.034	0.017	0.175	0.096	0.072	0.058	0.12		0.0033			
NCS HS28707-6	Aluminum Alloy	0.013	0.0053	0.157	0.2	0.065	0.12	0.21		0.0035			
Number	Name	Chemical Composition(Percent)											Unit Size (mm)
		Si	Fe	Mn	Cr	Ni	Cu	Mg	Zn	V	Ti	Zr	
NCS HS41762	Aluminium Alloy	0.12	0.15	0.006	0.18	0.004	0.003	2.56	0.008				Φ42×38mm
NCS HS41763	Aluminium Alloy	0.84	0.2	0.51	0.015	0.01	0.081	0.95	0.066	0.014	0.011		Φ42×32mm
NCS HS41764	Aluminium Alloy	0.05	0.18	0.04	0.2	0.004	1.57	2.38	5.62		0.024		Φ42×38mm
NCS HS53721	Aluminium Alloy	0.269	0.271	0.356	0.154	0.051	0.154	1.51	4.89	0.085	0.123	0.191	Φ55×40mm
NCS HS53722	Aluminium Alloy	0.274	0.397	0.308	0.198	0.042	1.62	2.45	6.24		0.08		Φ55×40mm
NCS HS93749	Aluminium Alloy	11.82	0.168	0.627		0.0043	1.51	0.76	0.008	0.012	0.0085	0.03	Φ50×35mm
Number	Name	Sn	Pb										
NCS HS93749	Aluminium Alloy	<0.001#	(0.0006)										

Section 8 Nonferrous Metal(Disk)

2)Copper & Copper Alloy

Number	Name	Chemical Composition(Percent)												Unit Size (mm)
		Fe	P	Zn	Sn	Sb	Pb	Bi	Cu	Ni	Si	Mn	Al	
NCS HS 28703-1	Pb brass	0.028	0.0043	23.99	0.019	0.0036	2.77	0.0009	73	0.003		0.0048		Φ35×28
NCS HS 28703-2	Pb brass	0.036	0.012	33.45	0.32	0.0034	1.87	0.0015	64.43	0.0023	0.0012	0.174	0.015	Φ35×28
NCS HS 28703-3	Pb brass	0.047	0.0042	38.79	0.108	0.0061	0.766	0.0015	60.28	0.0019		0.0046		Φ35×28
NCS HS 28703-4	Pb brass	0.167	0.011	38.85	0.102	0.0077	1.5	0.0024	59.14	0.0027	0.0016	0.031	0.064	Φ35×28
NCS HS 28703-5	Pb brass	0.11	0.02	39.59	0.269	0.013	1.81	0.0025	58.07	0.0025		0.029	0.034	Φ35×28
NCS HS 28703-6	Pb brass	0.037	0.044	41.76	0.478	0.022	0.581	0.001	59.62	0.0023		0.05	0.271	Φ35×28
NCS HS 28703-7	Pb brass	0.502	0.02	34.92	0.75	0.029	3.06	0.0083	59.55	0.0035	0.0077	0.464	0.364	Φ35×28
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Fe	P	Zn	Sn	Sb	Pb	Bi	Cu	Ni	Si	As		
NCS HS 28704-1	Copper alloy	0.288	0.084	39.01	0.0047	0.023	0.318	0.0016	59.89	0.015		0.043		Φ35×28
NCS HS 28704-2	Copper alloy	0.116	0.039	37.53	0.0051	0.0046	0.108	0.0028	61.88	0.0032	0.0029	0.0038		Φ35×28
NCS HS 28704-3	Copper alloy	0.052	0.011	30.44	0.0081	0.0072	0.018	0.0043	69.08	0.006		0.0094		Φ35×28
NCS HS 28704-4	Copper alloy	0.11	0.013	18.75	0.01	0.01	0.017	0.0084	80.9	0.013		0.027		Φ35×28
NCS HS 28704-5	Copper alloy	0.028	0.0052	14.79	0.011	0.0091	0.029	0.0066	85.06	0.0045	0.0019	0.0079		Φ35×28
NCS HS 28704-6	Copper alloy	0.024	0.0071	9.76	0.0010	0.0031	0.0084	0.0054	90.02	0.0045		0.0019		Φ35×28
NCS HS 28704-7	Copper alloy	0.012	0.0046	4.02	0.0010	0.0013	0.0028	0.0019	95.9	0.0047	0.0024	0.0021		Φ35×28
Number	Name	Chemical Composition(Percent)										Unit Size (mm)		
		Fe	Si	Mn	P	Mg	Cu	As	Sb	Pb	Bi			
NCS HS 43708-1	Monel Metal	(2.33)	0.035	1.12	0.011	0.012	(28.64)	0.030	0.0014	0.0021	0.0011			23×28×70
NCS HS 43708-2	Monel Metal	(2.67)	0.0225	1.16	0.0048	0.096	(28.06)	0.0076	0.0018	0.0026	0.0016			23×28×70
NCS HS 43708-3	Monel Metal	(2.48)	0.21	1.53	0.014	0.40	(27.69)	0.049	0.0063		0.0028			23×28×70
NCS HS 43708-4	Monel Metal	(2.42)	0.035	1.31	0.0054	0.042	(27.85)	0.015	0.0040	0.0056	0.0047			23×28×70
NCS HS 43708-5	Monel Metal	(2.42)	0.078	1.58	0.020	0.19	(28.11)	0.0063	0.0026	0.010	0.0079			23×28×70
NCS HS 43708-6	Monel Metal	(2.36)		1.40			(28.29)			0.0013				23×28×70
Number	Name	Chemical Composition(Percent)										Unit Size (mm)		
		Fe	Si	Mn	P	Ni	Zn	Sn	As	Sb	Pb			
NCS HS 43709-1	Silicon Bronze	0.089	(2.83)	(1.21)	0.015	0.075	0.90	0.50	0.0010	0.00104	0.0102			Φ30×57
NCS HS 43709-2	Silicon Bronze	0.16	(3.03)	(1.21)	0.026	0.13	0.55	0.30	0.0017	0.0017	0.017			Φ30×57
NCS HS 43709-3	Silicon Bronze	0.21	(3.04)	(1.24)	0.036	0.18	0.36	0.19	0.0026	0.0025	0.024			Φ30×57
NCS HS 43709-4	Silicon Bronze	0.34	(3.04)	(1.25)	0.56	0.26	0.23	0.12	0.0042	0.0042	0.036			Φ30×57
NCS HS 43709-5	Silicon Bronze	0.56	(2.93)	(1.17)	0.088	0.41	0.16	0.070	0.0068	0.0066	0.059			Φ30×57

Section 8 Nonferrous Metal(Disk)

2)Copper & Copper Alloy

Number	Name	Chemical Composition(Percent)							Unit Size (mm)					
		Fe	Mn	Al										
NCS HS 43712-1	Aluminum Bronze	4.94	2.63	7.76					Φ32×45					
NCS HS 43712-2	Aluminum Bronze	4.17	2.92	8.78					Φ32×45					
NCS HS 43712-3	Aluminum Bronze	3.51	2.01	9.75					Φ32×45					
NCS HS 43712-4	Aluminum Bronze	2.45	1.37	11.75					Φ32×45					
NCS HS 43712-5	Aluminum Bronze	1.63	0.61	10.85					Φ32×45					
Number	Name	Chemical Composition(Percent)							Unit Size (mm)					
		Fe	P	Cu	As	Sb	Pb	Bi						
NCS HS 43714-1	H68,Brass	0.251	0.041	(65.73)	0.016	0.025	0.013	0.0084	Φ32×40					
NCS HS 43714-2	H68,Brass	0.138	0.024	(68.37)	0.046	0.0046	0.028	0.0016	Φ32×40					
NCS HS 43714-3	H68,Brass	0.078	0.012	(67.24)	0.126	0.0084	0.042	0.0030	Φ32×40					
NCS HS 43714-4	H68,Brass	0.041	0.0087	(65.66)	0.078	0.014	0.079	0.0048	Φ32×40					
NCS HS 43714-5	H68,Brass	0.024	0.0054	(68.60)	0.027	0.0025	0.139	0.00073	Φ32×40					
Number	Name	Chemical Composition(Percent)							Unit Size (mm)					
		Fe	P	Cu	As	Sb	Pb	Bi						
NCS HS 43715-1	Brass	0.046	0.0092	60.03		0.016	0.074	0.0049	Φ35×23					
NCS HS 43715-2	Brass	0.018	0.0046	62.40		0.0026	0.132	0.00075	Φ35×23					
NCS HS 43715-3	Brass	0.251	0.041	65.73	0.016	0.025	0.013	0.0088	Φ35×23					
NCS HS 43715-4	Brass	0.153	0.022	68.73	0.048	0.0051	0.028	0.0016	Φ35×23					
NCS HS 43715-5	Brass	0.338	0.013	58.96	0.088	0.011	0.391	0.0030	Φ35×23					
NCS HS 43715-6	Brass	0.473	0.038	71.88	0.129	0.020	0.251	0.0061	Φ35×23					
NCS HS 43715-7	Brass		0.062	55.39			0.563		Φ35×23					
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Pb	Fe	Bi	Sb	As	Sn	Ni	Zn	P	S	Se		Te
NCS HS 43716a-1	Pure Copper		0.0022						0.0015	0.02	0.0013	0.0013	0.0016	Φ40×40
NCS HS 43716a-2	Pure Copper	0.0016	0.007	0.0006	0.0021	0.0013	0.00097	0.0025	0.0024	0.0017	0.0021	0.0013	0.0016	Φ40×40
NCS HS 43716a-4	Pure Copper	0.00097	0.0032	0.00095	0.00098	0.0032	0.0037	0.0011	0.0087	0.0088	0.0019			Φ40×40
NCS HS 43716a-5	Pure Copper	0.0079		0.0017	0.0052	0.0052	0.007	0.0118	0.0182	0.0103	0.0050	0.0051	0.0052	Φ40×40
NCS HS 43716a-6	Pure Copper	0.0154	0.0475	0.0059	0.0077	0.0083	0.0142	0.009		0.0222	0.0047	0.0071	0.0082	Φ40×40
NCS HS 43716a-7	Pure Copper	0.0445	0.0652	0.019	0.021	0.025	0.0489	0.0423	0.0443	0.0414	0.0044	0.0109	0.012	Φ40×40
NCS HS 43716a-8	Pure Copper	0.0312	0.0198	0.0093	0.0108	0.0136	0.0183	0.0242	0.0331	0.0299	0.0063	0.007	0.0054	Φ40×40
NCS HS 43716a-9	Pure Copper	0.0558		0.0062	0.0078	0.0139	0.0689	0.0687	0.0247	0.0587	0.0091	0.0104	0.0087	Φ40×40
NCS HS 43716a-10	Pure Copper	0.0057	0.142	0.0019		0.0201	0.0592	0.0527	0.0512	0.0336	0.0077			Φ40×40
Number	Name	Chemical Composition(Percent)							Unit Size (mm)					
		Cu	Fe	Pb	Sb	P	Bi							
NCS HS 43717-1	H62,Brass	(61.96)	0.242	0.022	0.025	0.061	0.0081							Φ35×40
NCS HS 43717-2	H62,Brass	(61.71)	0.131	0.042	0.0046	0.035	0.0015							Φ35×40
NCS HS 43717-3	H62,Brass	(61.33)	0.076	0.255	0.0083	0.018	0.0029							Φ35×40
NCS HS 43717-4	H62,Brass	(60.63)	0.046	0.074	0.016	0.092	0.0049							Φ35×40
NCS HS 43717-5	H62,Brass	62.40	0.018	0.132	0.0026	0.0046	0.00075							Φ35×40
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Cu	Ag	Sn	Ni	Fe	Si	Zn	C	S	Cd	Cr		
NCS HS 43720-1	Copper alloy	99.995	0.0011	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	0.001		Φ35×25
NCS HS 43720-2	Copper alloy	98.5	0.092	0.059	0.039	0.11	0.034	0.12		0.04		0.075		Φ35×25
NCS HS 43720-3	Copper alloy	98.77	0.003	0.002	0.053	0.1	0.042					0.81		Φ35×25
NCS HS 43720-4	Copper alloy	59.79		0.42	0.39		1.04	35.49						Φ35×25
NCS HS 43720-5	Copper alloy	78.22		0.26	4.46	3.34	0.3	0.73						Φ35×25
NCS HS 43720-6	Copper alloy	66.53		0.1	29.45	1.08	0.25	0.58	0.1					Φ35×25
NCS HS 43720-7	Copper alloy	85.43		0.059	11.07	1.18	0.1	0.42	0.008					Φ35×25

Section 8 Nonferrous Metal(Disk) 2)Copper & Copper Alloy

Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Zr	Mg	Co	Mn	Sb	Al	As	P	Se	Te	Bi		
NCS HS 43720-1	Copper alloy	0.0003	0.0003	<0.0002	<0.0001	<0.0002	<0.0002	0.0003	0.0006	<0.0002	<0.0002	<0.0002		
NCS HS 43720-2	Copper alloy		0.005	0.095	0.059	0.061	0.12	0.29	0.071	0.006	0.059	0.035		
NCS HS 43720-3	Copper alloy	0.13	0.081			0.006	0.019	0.015	0.001			0.001		
NCS HS 43720-4	Copper alloy				0.57		1.16	0.023	0.025			0.005		
NCS HS 43720-5	Copper alloy				2.97	0.006	9.44		0.018					
NCS HS 43720-6	Copper alloy		0.07	0.49	1.06	0.021	0.19		0.012					
NCS HS 43720-7	Copper alloy			0.59	1.09	0.006		0.024	0.01			0.006		
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Sn	Zn	Pb	Fe	Ni	Bi	Sb	P	As	Mg	S		Co
NCS HS 43722-1	Copper alloy	0.1	0.294	0.098	0.536	0.05	0.0005	0.006	0.195	0.028	0.073	0.0056	0.024	Φ40×45
NCS HS 43722-2	Copper alloy	0.048	0.047	0.05	1.37	0.03	0.005	0.0021	0.051	0.0094	0.2	0.0028	0.048	Φ40×45
NCS HS 43722-3	Copper alloy	0.03	0.122	0.031	2.25	0.009	0.0022	0.0022	0.027	0.0043	0.015	0.0009	0.1	Φ40×45
NCS HS 43722-4	Copper alloy	0.015	0.0031	0.01	2.61	0.0024	0.011	0.021	0.111	0.002	0.084	0.0009	0.14	Φ40×45
NCS HS 43722-5	Copper alloy	0.0054	0.027	0.0063	2.37	0.001	0.022	0.011	0.0054	0.02	0.011	0.0019	0.01	Φ40×45
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Sn	Pb	Fe	Ni	Bi	Sb	P	Cu	As	S			
NCS HS 43723-1	Copper alloy	1.038	0.0054	0.448	0.98	3.002	0.0022	0.015	59.387	0.029	0.0011			Φ40×45
NCS HS 43723-2	Copper alloy	0.306	0.105	0.093	0.32	0.414	0.03	0.0088	60.903	0.015	0.0015			Φ40×45
NCS HS 43723-3	Copper alloy	0.518	0.0161	0.137	2.13	1.561	0.014	0.087	60.088	0.0054	0.012			Φ40×45
NCS HS 43723-4	Copper alloy	2.007	0.0209	0.645	2.94	0.826	0.1	0.0039	60.14	0.0097	0.015			Φ40×45
NCS HS 43723-5	Copper alloy	3.02	0.0059	0.0113	0.11	0.108	0.0047	0.0016	61.642	0.002	0.0018			Φ40×45
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Cu	Pb	Fe	Ni	Mn	Al	Si	Sn	Bi	Sb	P		S
NCS HS 43724-1	Lead Brass	59.984	0.414	0.205	0.474	0.119	0.0749	0.0049	0.0099	(0.0110)	(0.0056)	(0.00077)	(0.00077)	Φ40×20
NCS HS 43724-2	Lead Brass	57.767	0.760	0.0426	0.795	0.184	0.0116	0.0093	0.0979	(0.0050)	(0.0021)	(0.0015)	(0.0015)	Φ40×20
NCS HS 43724-3	Lead Brass	57.089	1.421	0.0104	0.347		0.177	0.0520	0.192	(0.0030)	(0.0116)	(0.00099)	(0.00099)	Φ40×20
NCS HS 43724-4	Lead Brass	58.641	1.810	(0.703)	0.104	0.0188	0.452	(0.0070)	0.293	(0.0049)	(0.0102)	(0.00060)	(0.00060)	Φ40×20
NCS HS 43724-5	Lead Brass	58.761	2.396	0.107	0.0286	0.0517	0.761	0.209	0.689	(0.0010)	(0.0048)	(0.0010)	(0.0010)	Φ40×20
NCS HS 43724-6	Lead Brass	59.597	1.393	0.613	0.386	0.0345	0.262	0.0424	0.206	(0.0030)	(0.0291)	(0.00094)	(0.00094)	Φ40×20
Number	Name	Chemical Composition(Percent)											Unit Size (mm)	
		Cu	Sn	Ni	Al	Fe	Pb	P	Zn					
NCS HS 45721-1	Sn Bronze	remain	4.06	0.31	0.00096	0.116	0.072	0.33	0.22					Φ39×30
NCS HS 45721-2	Sn Bronze	remain	5.39	0.24	0.00096	0.014	0.091	0.062	0.47					Φ39×30
NCS HS 43715-3	Sn Bronze	remain	6.34	0.178	0.00085	0.034	0.031	0.154	0.43					Φ39×30
NCS HS 45721-4	Sn Bronze	remain	7.16	0.118	0.00098	0.063	0.013	0.218	0.33					Φ39×30
NCS HS 45721-5	Sn Bronze	remain	8.27	0.053	0.004	0.089	0.049	0.289	0.24					Φ39×30
NCS HS 45721-6	Sn Bronze	remain	6.52	0.18	0.0013	0.019	0.02	0.31	34					Φ39×30

Section 8 Nonferrous Metal(Disk)

3)Magnesium & Other Metal

Number	Name	Chemical Composition(Percent)					Unit Size (mm)								
		Fe	Si	Al	C	V									
NCS HS 44701-1	Titanium alloy	0.39	0.277	3.9	0.158	5.65	Φ36×25								
NCS HS 44701-2	Titanium alloy	0.314	0.196	4.67	0.119	5.01	Φ36×25								
NCS HS 44701-3	Titanium alloy	0.239	0.115	5.38	0.095	3.41	Φ36×25								
NCS HS 44701-4	Titanium alloy	0.143	0.052	6.48	0.051	4.46	Φ36×25								
NCS HS 44701-5	Titanium alloy	0.131	0.085	6.78	0.023	3.85	Φ36×25								
NCS HS 44701-6	Titanium alloy	0.073	0.031	7.03	0.0193	2.75	Φ36×25								
Number	Name	Chemical Composition(Percent)								Unit Size (mm)					
		Si	Fe	Cu	Mn	Ni	Zn	Al	Be						
NCS HS 49722-1	Magnesium Alloy	0.026	0.0025	(0.0024)	0.016	0.0006	(0.0069)	5.81	0.00007	Φ45×25					
NCS HS 49722-2	Magnesium Alloy	0.024	0.0042	0.0036	0.077	0.0010	3.76	4.68	0.00009	Φ45×25					
NCS HS 49722-3	Magnesium Alloy	0.097	0.013	0.087	0.339	0.0045	2.99	7.18	0.00044	Φ45×25					
NCS HS 49722-4	Magnesium Alloy	0.28	0.023	0.164	0.231	(0.013)	1.94	6.96	0.0010	Φ45×25					
NCS HS 49722-5	Magnesium Alloy	0.176	(0.020)	0.295	(0.68)	0.018	0.217	11.52	(0.0023)	Φ45×25					
NCS HS 49722-6	Magnesium Alloy	0.43	0.039	0.0098	0.61	0.0036	0.98	9.07	0.0029	Φ45×25					
Number	Name	Chemical Composition(Percent)								Unit Size (mm)					
		Si	Fe	Cu	Mn	Ni	Zn	Al	Be						
NCS HS 49723-1	Magnesium Alloy	0.034	(0.039)	0.0029	0.92	0.0012	0.057	6.10	(0.0020)	Φ45×25					
NCS HS 49723-2	Magnesium Alloy	0.173	0.0089	0.0081	0.338	0.0008	0.237	2.55	0.0009	Φ45×25					
NCS HS 49723-3	Magnesium Alloy	0.27	0.015	0.020	0.182	(0.0015)	0.171	7.33	0.00015	Φ45×25					
NCS HS 49723-4	Magnesium Alloy	0.286	(0.016)	0.020	0.428	(0.0068)	0.271	6.29	(0.0010)	Φ45×25					
NCS HS 49723-5	Magnesium Alloy	0.239	0.025	0.013	(0.65)	0.0025	0.105	4.57	0.0009	Φ45×25					
NCS HS 49723-6	Magnesium Alloy	0.065	0.0049	0.010	0.130	0.010	0.492	1.36	0.0033	Φ45×25					
Number	Name	Chemical Composition(Percent)									Unit Size (mm)				
		Si	Fe	Cu	Mn	Zn	Ti	Ni	Al	Pb					
NCS HS 49725-1	Pure Magnesium	0.011	0.0028	0.0012	0.017	0.011	0.00027	0.00035	0.011	0.0052	Φ45×25				
NCS HS 49725-2	Pure Magnesium	0.062	0.027	0.0077	0.085	0.047	0.00018	0.011	0.531	0.037	Φ45×25				
NCS HS 49725-3	Pure Magnesium	0.023	0.0083	0.0087	0.019	0.012	0.000062	0.0021	0.017	0.0067	Φ45×25				
NCS HS 49725-4	Pure Magnesium	0.034	0.0069	0.014	0.023	0.019	0.0012	0.0044	0.262	0.012	Φ45×25				
NCS HS 49725-5	Pure Magnesium	0.0063	0.0022	0.00063	0.0060	0.0076	0.000072	0.00033	0.0059	0.0020	Φ45×25				
NCS HS 49725-6	Pure Magnesium	0.020	0.020	0.025	0.148	0.025	0.0025	0.0052	1.06	0.018	Φ45×25				
NCS HS 49725-7	Pure Magnesium	0.030	0.0055	0.0039	0.017	0.013	0.00010	0.0013	0.0082	0.0067	Φ45×25				
Number	Name	Chemical Composition(Percent)											Unit Size (mm)		
		Al	Mo	Nb	Sn	Zr	Cr	Si	Fe	C	O*	N*		H*	V
NCS HS 93741	Titanium Alloy	6.24						0.024	0.047	0.013				4.08	Φ36×25
NCS HS 93742	Titanium Alloy	5.99	2.89	1.97	2.24	1.99	1.22	0.067	0.05	0.01	0.13	0.01	0.001		Φ36×25
Number	Name	Chemical Composition(Percent)							Unit Size (mm)						
		C	Si	Al	Fe	Mo	V	Zr							
NCS HS11903	Titanium Alloy	0.012	0.261	6.74	0.097	3.37		1.52						Φ40×30	
NCS HS11904	Titanium Alloy	0.0093	0.018	6.24	0.191			4.19						Φ40×30	

Section 8 Nonferrous Metal(Disk)

3)Magnesium & Other Metal

Number	Name	Chemical Composition(Percent)							Unit Size (mm)			
		As	Bi	Sn	Ag	Sb	Cd	Pb				
NCS HS 45723-1	Pb-Sn Alloy	0.0032	0.0053	0.884	0.0022	0.02	0.0038	remain	D45×25			
NCS HS 45723-2	Pb-Sn Alloy	0.0087	0.0191	2.02	0.0068	0.056	0.0042	remain	D45×25			
NCS HS 45723-3	Pb-Sn Alloy	0.013	0.034	3.05	0.0112	0.093	0.0091	remain	D45×25			
NCS HS 45723-4	Pb-Sn Alloy	0.02	0.0491	4.16	0.0156	0.137	0.0126	remain	D45×25			
Number	Name	Chemical Composition(Percent)										Unit Size (mm)
		Cu	Ag	Bi	As	Sb	Sn	Zn	Ni	Cd	Fe*	
NCS HS 52702-1	Pure Lead	0.0004	0.0002	0.00055	0.00012	0.00025	0.00015	0.00015	0.00015	0.0001	0.00025	Φ40×25
NCS HS 52702-2	Pure Lead	0.0011	0.0011	0.0047	0.00043	0.0017	0.0002	0.00032	0.00063	0.00055	0.0003	Φ40×25
NCS HS 52702-3	Pure Lead	0.0029	0.0025	0.021	0.00092	0.0056	0.00025	0.0004	0.0015	0.001	0.0003	Φ40×25
NCS HS 52702-4	Pure Lead	0.0056	0.0051	0.041	0.0053	0.023	0.00075	0.001	0.0019	0.0019	0.00027	Φ40×25
NCS HS 52702-5	Pure Lead	0.0142	0.0102	0.069	0.0145	0.058	0.0012	0.0012	0.0033	0.0029	0.0005	Φ40×25
Number	Name	Chemical Composition(Percent)					Unit Size (mm)					
		Ca	Sn	Al	Bi	Ag						
NCS HS 52703-1	Lead-Tin-Calcium alloy	0.021	0.125	0.0037	0.0034	0.0087	Φ48×30					
NCS HS 52703-2	Lead-Tin-Calcium alloy	0.067	0.626	0.0093	0.013	0.0065	Φ48×30					
NCS HS 52703-3	Lead-Tin-Calcium alloy	0.111	0.95	0.014	0.022	0.0087	Φ48×30					
NCS HS 52703-4	Lead-Tin-Calcium alloy	0.168	1.35	0.027	0.033	0.012	Φ48×30					
NCS HS 52703-5	Lead-Tin-Calcium alloy	0.302	1.63	0.036	0.048	0.017	Φ48×30					
Number	Name	Chemical Composition(Percent)							Unit Size (mm)			
		Al	Zn	Mn	Be	Si	Fe	Cu		Ni		
NCS HS 91711-1	Magnesium Alloy	3.04	1.21	0.082	0.0032	0.037	0.035	0.0096	0.0006	Φ40×25		
NCS HS 91711-2	Magnesium Alloy	5.06	0.954	0.256	0.0022	0.100	0.028	0.085	0.0047	Φ40×25		
NCS HS 91711-3	Magnesium Alloy	6.97	0.709	0.374	0.0017	0.183	0.018	0.151	0.0096	Φ40×25		
NCS HS 91711-4	Magnesium Alloy	9.00	0.463	0.567	0.0013	0.285	0.010	0.222	0.015	Φ40×25		
NCS HS 91711-5	Magnesium Alloy	10.39	0.201	(0.71)	0.0007	0.411	0.0081	0.307	0.019	Φ40×25		
Number	Name	Chemical Composition(Percent)										Unit Size (mm)
		Cd	Se	Te	Sb	As	Sn	Cu	Bi	Zn	Ag	
NCS HS 45722-1	Pb-Sb Alloy	0.00055	0.0065	0.0056	0.315	0.0023	0.0022	0.012	0.0036	0.0004	0.0051	Φ45×25
NCS HS 45722-2	Pb-Sb Alloy	0.004	0.012	0.012	1.46	0.011	0.0014	0.057	0.012	0.0011	0.011	Φ45×25
NCS HS 45722-3	Pb-Sb Alloy	0.0061	0.015	0.045	3.02	0.022	0.033	0.085	0.035	0.00075	0.051	Φ45×25
NCS HS 45722-4	Pb-Sb Alloy	0.0082	0.0036	0.055	5.02	0.04	0.057	0.12	0.056	0.0058	0.21	Φ45×25
NCS HS 45722-5	Pb-Sb Alloy	0.02	0.0032	0.065	7.05	0.175	0.362	0.253	0.088	0.015	0.43	Φ45×25

Section 9 Coal(Powder)

Number	Name	Total Sulfur (%)	Ash (%)	Volatile Matter (%)	Calorific Value (MJ/kg)	Carbon (%)	Hydrogen (%)	Nitrogen (%)	True Specific Gravity (20°C)	Coal Type	Unit Size (g)
NCSFC11001	Coal	0.25	10.21	30.31	28.38	72.34	3.99	1.01	1.48	bitumite	50
NCSFC11002	Coal	0.41	6.44	30.82	28.51	74	3.83	0.84	1.51	bitumite	50
NCSFC11003	Coal	0.47	20.25	26.57	22.43	61.32	2.7	0.62	1.73	bitumite	50
NCSFC11004	Coal	0.78	9.23	32.28	26.57	70.18	3.56	0.83	1.56	bitumite	50
NCSFC11005	Coal	0.97	10.28	30.54	26.25	69.75	3.31	0.75	1.6	bitumite	50
NCSFC11006	Coal	1.56	16.26	18.85	27.39	71.06	3.21	0.99	1.57	bitumite	50
NCSFC11007	Coal	1.72	12.56	31.55	25.31	67.09	3.29	0.76	1.63	bitumite	50
NCSFC11008	Coal	1.59	25.64	28.81	22.12	57.2	3.28	0.82	1.68	bitumite	50
NCSFC11009	Coal	1.81	15.63	23.29	26.61	69.09	3.32	0.92	1.57	bitumite	50
NCSFC11010	Coal	0.44	13.47	10.67	30.4	78.36	3.23	1.13	1.54	anthracite	50
NCSFC11011	Coal	1.08	9.2	10.49	32.2	82.11	3.41	1.21	1.45	anthracite	50
NCSFC11012	Coal	1.55	10.84	9.28	31.45	80.98	3.23	0.95	1.47	anthracite	50
NCSFC11013	Coal	0.63	6.96	32.63	27.78	72.03	3.77	0.85	1.52	bitumite	50
NCSFC11014	Coal	0.41	6.19	34.14	30.54	76.38	4.46	0.97	1.41	bitumite	50
Number	Name	Deformation temperature		Softening Temperature		Hemisphering Temperature		Fluid temperature		Unit Size (g)	
NCSFS82002	Fusibility of Coal Ash	1171		1198		1217		1265		50	
NCSFS82003	Fusibility of Coal Ash	1148		1178		1196		1251		50	
NCSFS82004	Fusibility of Coal Ash	1198		1236		1256		1291		50	
NCSFS82005	Fusibility of Coal Ash	1164		1201		1245		1298		50	
NCSFS82006	Fusibility of Coal Ash	1348		1392		1402		1430		50	
Number	Name	Hg	As	F	P*	Cl*	Unit Size (g)				
NCSFC82023	Hg, As, P, F, Cl in Coal	0.576	16	148	0.021	0.03	50				
NCSFC82024	Hg, As, P, F, Cl in Coal	0.794	13	153	0.022	0.01	50				
NCSFC82025	Hg, As, P, F, Cl in Coal	0.975	21	179	0.026	0.047	50				

Section 9 Coal(Powder)

Number	Name	Chemical Composition(Percent)									Unit Size (in g)			
		Total Sulfur	Ash	Volatile matter	Calorific Value	Carbon	Hydrogen	Nitrogen	True Specific Gravity	Coal Type				
NCS FC 28001L	Coal	0.52	9.80	24.10	31.70	78.77	4.33	1.32	1.32	bitumite	50			
NCS FC 28001m	Coal	0.56	9.60	24.03	32.09	79.24	4.35	1.31	1.31	bitumite	50			
NCS FC 28002j	Coal	1.61	23.69	30.22	23.75	60.00	3.67	1.07	1.07	bitumite	50			
NCS FC 28003f	Coal	0.28	16.27	6.51	26.38	78.10	0.93	0.23	0.23	anthracite	50			
NCS FC 28003g	Coal	0.39	24.38	5.39	23.93	70.95	0.76	0.30	0.30	anthracite	50			
NCS FC 28004e	Coal	1.00	28.07	4.97	23.78	66.70	1.43	0.72	0.72	anthracite	50			
NCS FC 28004f	Coal	1.13	13.80	7.02	29.43	79.13	2.23	1.13	1.13	anthracite	50			
NCS FC 28005e	Coal	1.76	14.28	8.69	29.61	77.83	2.73	0.85	0.85	anthracite	50			
NCS FC 28006j	Coal	0.88	17.44	30.99	26.88	66.99	4.07	1.19	1.19	bitumite	50			
NCS FC 28007g	Coal	1.83	14.70	34.51	27.51	68.05	4.20	1.20	1.20	bitumite	50			
NCS FC 28008e	Coal	2.78	15.54	35.09	28.13	68.22	4.44	1.22	1.22	bitumite	50			
NCS FC 28009f	Coal	4.34	25.42	21.68	24.71	61.46	3.34	1.06	1.06	bitumite	50			
NCS FC 28010e	Coal	1.36	15.75	33.22	26.80	66.92	4.09	1.17	1.17	bitumite	50			
NCS FC 28011d	Coal	2.23	20.40	6.39	26.35	72.11	1.84	0.85	0.85	anthracite	50			
NCS FC 28012c	Coal	3.07	19.70	10.77	27.37	70.39	2.90	1.10	1.10	anthracite	50			
NCS FC 28017a	Coal	0.26	14.56	5.77	27.12	80.19	0.98	0.23	0.23	anthracite	50			
Number	Name	Chemical Composition(Percent)			Unit Size (in g)									
NCS FC 59001	Coke	T _s	Ash	Volatile	60									
NCS FC 59002	Coke	0.63	7.22	1.39	60									
NCS FC 59002	Coke	0.47	12.62	1.50	60									
Number	Name	M _{ad} (%)	A _{ad} (%)	A _d (%)	V _{ad} (%)	V _d (%)	S _{ad} (%)	S _d (%)	O _{grad} (MJ/kg)	Q _{grd} (MJ/kg)	Unit Size (in g)			
NCS FC 62001	Bituminous Coal for Cement	3.76	21.58	22.42	22.90	23.79	1.43	1.49	24.37	25.32	20			
NCS FC 62002	Anthracite Coal for Cement	3.70	25.18	26.15	5.81	6.03	0.21	0.22	22.36	23.22	20			
Number	Name	Chemical Composition(Percent)				Unit Size (mm)								
NCS FC 82001	Coal	As*	P	Cl	F*	50								
NCS FC 82002	Coal	15	0.03	1		50								
NCS FC 82003	Coal	34	0.007			50								
NCS FC 82004	Coal	51	0.092			50								
NCS FC 82004	Coal			0.010		50								
NCS FC 82005	Coal			0.057		50								
NCS FC 82006	Coal			0.110		50								
NCS FC 82007	Fluorine in coal				248.00	50								
NCS FC 82008	Fluorine in coal				864.00	50								
NCS FC 82009	Fluorine in coal				1496.00	50								
*Mass Fraction Substance(10 ⁶)														
Number	Name	Chemical Composition(Percent)										Unit Size (in g)		
NCS FC 82012a	Coal Ash	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	SO ₃	TiO ₂	K ₂ O	Na ₂ O	P ₂ O ₅	30		
NCS FC 82013a	Coal Ash	46.99	29.45	7.95	8.73	1.03	0.69	1.28	1.16	0.79	0.28	30		
NCS FC 82014a	Coal Ash	41.11	28.54	13.43	5.30	0.71	5.10	2.62	1.61	0.25	0.11	30		
NCS FC 82015a	Coal Ash	54.68	28.09	6.04	5.15	1.05	0.49	1.14	1.44	0.52	0.38	30		
NCS FC 82017a	Coal Ash	59.66	22.90	6.55	4.01	1.31	0.40	1.13	1.53	0.78	0.55	30		
NCS FC 82017a	Coal Ash	25.60	10.40	7.17	39.62	3.71	9.04	0.48	0.78	0.83	0.04	30		
Number	Name	Chemical Composition(Percent)											Unit Size (in g)	
NCS FC 28019	coke	Q _{grd} (MJ/kg)	St.d	Ad	Vd	SiO ₂	Al ₂ O ₃	CaO	MgO	F ₂ O ₃	TiO ₂	Na ₂ O	K ₂ O	50
NCS FC 28020	coke	29.08	0.67	11.64	1.31	5.52	4.17	0.45	0.094	0.55	0.18	0.08	0.058	50
NCS FC 28022	coke	28.26	0.76	14.42	1.78	6.52	4.95	0.52	0.15	1.22	0.22	0.05	0.079	50
NCS FC 28023	coke	29.10	0.81	11.90	1.68	5.63	3.98	0.55	0.16	0.63	0.18	0.084	0.069	50
NCS FC 28023	coke	27.56	1.44	16.20	1.80	8.17	5.28	0.57	0.097	0.96	0.20	0.067	0.11	50
NCS FC 28019	coke	MnO	SrO	P	Cr	Ni	Cu	V	Pb	As	Cl			
NCS FC 28020	coke	0.0049	0.01	0.027	0.0015	0.001	0.0018	0.0027	0.0009	0.0001	0.024			
NCS FC 28022	coke	0.0052	0.017	0.037	0.0022	0.0008	0.0027	0.0038	0.0011	0.00014	0.02			
NCS FC 28023	coke	0.013	0.011	0.018	0.0022	0.0008	0.002	0.0032	0.0008	0.0002	0.049			
NCS FC 28023	coke	0.0044	0.0084	0.018	0.0021	0.001	0.0018	0.0037	0.0008	0.00024	0.022			

Section 9 Coal(Powder)

Number	Name	St, d	Ad	Vd	Chemical Composition(Percent)						Unit Size (mm)	
NCS FC 28024	coke	0.41	15.43	1.98	Qgr,d(MJ/kg)	P					50	
NCS FC 28025	coke	0.62	11.5	1.31	29.32	0.021					50	
NCS FC 28026	coke	0.79	12.18	1.36	28.95	0.031					50	
NCS FC 28027	coke	0.89	14.83	1.65	28.12	0.026					50	
Number	Name	Ts	Ash	Volatile	Chemical Composition(Percent)						Unit Size (in g)	
NCS FC 93001	Coke	0.60	12.88	1.75							50	
NCS FC 93002	Coke	0.78	13.70	2.00							50	
NCS FC 93005	Coke	1.31	16.55	3.10							50	
NCS FC 93006	Coke	2.15	21.53	4.92							50	
Number	Name	Certified Value(HGI)		Chemical Composition								Unit Size (in g)
NCS AG 82001	Hadgrove Grindability Index of Coal	34										250
NCS AG 82002	Hadgrove Grindability Index of Coal	59										250
NCS AG 82003	Hadgrove Grindability Index of Coal	88										250
NCS AG 82004	Hadgrove Grindability Index of Coal	121										250
Number	Name	Total Sulfur (%)	Ash (%)	Volatile (%)	Calorific (MJ/kg)	Carbon (%)	Hydrogen (%)	Nitrogen (%)	True specific Gravity(20°C)	Coal Type	Unit Size (in g)	
NCS FC 28101	Coal	0.2	3.95	6.64	34.34	90.27	3.01	0.6	1.47	anthracite	50	
NCS FC 28102	Coal	0.19	6.46	7.9	33.1	87.47	2.86	0.6	1.5	anthracite	50	
NCS FC 28103	Coal	0.36	10.51	9.45	31.8	81.55	3.33	1.3	1.47	anthracite	50	
NCS FC 28104	Coal	0.41	10.09	11	32.04	81.6	3.52	1.34	1.45	anthracite	50	
NCS FC 28105	Coal	1.06	9.61	12.21	32.31	81.54	3.7	1.16	1.43	anthracite	50	
NCS FC 28106	Coal	1.72	8.56	31.92	32.98	79.09	4.95	1.38	1.35	bitumite	50	
NCS FC 28107	Coal	0.67	10.41	15.3	31.64	79.89	3.8	1.12	1.43	bitumite	50	
NCS FC 28108	Coal	0.57	13.68	30.84	29.9	72.94	4.46	1.26	1.42	bitumite	50	
NCS FC 28109	Coal	0.58	11.98	11.3	30.66	79.42	3.28	1.09	1.49	anthracite	50	
NCS FC 28110	Coal	0.87	8.42	32.94	30.92	75.96	4.56	1.33	1.41	bitumite	50	
NCS FC 28111	Coal	1.28	25.19	28.39	24.35	60.24	3.37	1.04	1.57	bitumite	50	
NCS FC 28112	Coal	2.1	8.08	33.7	33.04	78.75	5.01	1.31	1.33	bitumite	50	
NCS FC 28113	Coal	0.27	7.06	33.4	30.03	74.8	4.47	1.02	1.41	bitumite	50	
NCS FC 28114	Coal	0.2	4.66	33.07	30.73	76.36	4.54	1.08	1.4	bitumite	50	
NCS FC 28115	Coal	0.42	6.38	32.22	31.05	77.44	4.42	1.21	1.41	bitumite	50	
NCS FC 28116	Coal	0.54	6.08	32.34	31.82	78.68	4.59	1.34	1.39	bitumite	50	
NCS FC 28117	Coke	0.63	14.83	1.3	28.28						50	
NCS FC 28118	Coke	0.87	12.08	1.66	29.25						50	
NCS FC 28119	Coke	0.81	14.43	1.34	28.3						50	
NCS FC 28120	Coke	0.68	14.05	1.43	28.55						50	
NCS FC 28121	Coke	0.75	13.29	1.14	28.76						50	
Number	Name	Si	Al	Fe	Chemical Composition(Percent)						Unit Size (in g)	
NCS FC 28122	Inorganic elements in Coal	0.47	0.25	1.79	Ca	Mg	P	K	Na	Ti	50	
NCS FC 28123	Inorganic elements in Coal	1.86	1.88	0.35	0.74	0.081	0.066	0.026	0.11	0.096	50	
NCS FC 28124	Inorganic elements in Coal	1.77	1.75	0.34	0.79	0.071	0.044	0.02	0.13	0.079	50	
NCS FC 28125	Inorganic elements in Coal	2.69	2.27	0.24	0.28	0.05	0.013	0.09	0.048	0.09	50	
NCS FC 28126	Inorganic elements in Coal	1.01	0.83	0.32	0.65	0.06	0.019	0.01	0.034	0.046	50	
NCS FC 28127	Inorganic elements in Coal	5.61	3.47	1.02	1.88	0.28	0.01	0.29	0.052	0.018	50	
NCS FC 28128	Inorganic elements in Coal	1.64	1.22	0.86	0.19	0.059	0.0044	0.043	0.026	0.059	50	

Section 9 Coal(Powder)

Number	Name	Chemical Composition(Percent)									Unit Size (in g)		
		V	Mn	Cu	Co	Ni	Zn	Cr	Cd	Pb			
NCS FC 28122	Inorganic elements in Coal	0.0001	0.022	0.0002	0.0008	0.0008		0.0002	<0.0001	0.0002		50	
NCS FC 28123	Inorganic elements in Coal	0.0012	0.003	0.0012	0.0004	0.0008	(0.001)	0.001	<0.0001	0.0016		50	
NCS FC 28124	Inorganic elements in Coal	0.0011	0.0016	0.0012	0.0004	0.0008		0.0007	<0.0001	0.0016		50	
NCS FC 28125	Inorganic elements in Coal	0.0033	0.0009	0.0017	0.0011	0.0018		0.0005	<0.0001	0.0016		50	
NCS FC 28126	Inorganic elements in Coal	0.0011	0.008	0.0008	0.0003	0.0005		0.0005	0.0002			50	
NCS FC 28127	Inorganic elements in Coal	0.006	0.019	0.0023	0.0009	0.0016	0.004	0.0023				50	
NCS FC 28128	Inorganic elements in Coal	0.0028	0.0026	0.0012	0.0004	0.0008	<0.001	0.0008				50	
Number	Name	Chemical Composition(Percent)									Unit Size (in g)		
		Si	Al	Fe	Ca	Mg	P	K	Na	Ti			
NCS FC 28129	Element in coke	2.97	2.35	0.75	0.6	0.11	0.02	0.093	0.13	0.12		50	
NCS FC 28130	Element in coke	2.35	1.96	0.63	0.52	0.11	0.022	0.061	0.063	0.099		50	
NCS FC 28131	Element in coke	3.22	2.72	0.51	0.29	0.046	0.015	0.094	0.05	0.12		50	
Number	Name	Chemical Composition(Percent)									Unit Size (in g)		
		V	Mn	Cu	Co	Ni	Zn	Cr	Cd	Pb			
NCS FC 28129	Element in coke	0.0041	0.021	0.0021	0.0007	0.0015	0.0011	0.0015		0.0014		50	
NCS FC 28130	Element in coke	0.0034	0.015	0.0017	0.0006	0.0012	0.0011	0.0012	<0.0001			50	
NCS FC 28131	Element in coke	0.0027	0.008	0.0016	0.0007	0.0013	0.0018	0.0011	<0.0001			50	
Number	Name	Total Sulfur	Ash	Volatile	Calorific	P						Unit Size (in g)	
		(%)	(%)	(%)	(MJ/kg)	(%)							
NCS FC 28132	coke	0.50	11.39	2.80	30.23	0.016						50	
NCS FC 28133	coke	1.00	12.30	1.79	29.18	0.024						50	
NCS FC 28134	coke	1.19	12.70	1.95	29.04	0.024						50	
Number	Name	Chemical Composition(Percent)											Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	P ₂ O ₅	K ₂ O	Na ₂ O	TiO ₂	V ₂ O ₅	MnO	
NCS FC 28135	Ash of Coke	42.87	29.95	7.23	5.67	1.25	0.31	1.51	2.36	1.44	0.049	0.18	5
NCS FC 28136	Ash of Coke	41.61	30.666	7.51	6	1.5	0.41	1.22	1.36	1.41	0.05	0.16	5
NCS FC 28137	Ash of Coke	47.81	35.62	5.02	2.82	0.53	0.24	1.57	0.94	1.41	0.033	0.07	5
Number	Name	Total Sulfur	Ash	Volatile	Calorific	Carbon	Hydrogen	Nitrogen	TRUE Specific	Coal Type	Unit Size (in g)		
		(%)	(%)	(%)	(MJ/kg)	(%)	(%)	(%)	Gravity(20°C)"				
NCS FC 28138	Coal	1.42	44.23	11.11	18.59	47.12	2.48	0.75	1.79	anthracite	50		
NCS FC 28139	Coal	1.34	22.8	18.09	27.27	67.41	3.68	1.05	1.51	bitumite	50		
NCS FC 28140	Coal	1.29	25.88	30.31	22.71	58.12	3.4	1.04	1.62	bitumite	50		
NCS FC 28141	Coal	3.04	29.13	9.99	23.72	60.53	2.73	0.86	1.68	anthracite	50		
NCS FC 28142	Coal	4.54	34.45	12.38	22.18	55.14	2.79	0.85	1.71	bitumite	50		
NCS FC 28143	Coal	6.62	33.01	11.1	21.92	54.74	2.53	0.76	1.78	anthracite	50		
NCS FC 28144	Coal	1.56	73.37	9.44	6.77	18.01	1.45	0.28	2.29	coal waste rock	50		
Number	Name	Chemical Composition(Percent)											Unit Size (in g)
		SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	P ₂ O ₅	K ₂ O	Na ₂ O	TiO ₂	V ₂ O ₅	MnO	
NCS FC 28145	Coal ash	15.66	7.34	39.61	18.37	6.05	0.1	0.6	3.37	0.26	0.0042	0.44	5
NCS FC 28146	Coal ash	37.86	33.71	4.74	9.9	1.27	1.44	0.6	2.9	1.56	0.02	0.037	5
NCS FC 28147	Coal ash	37.52	32.78	4.81	10.97	1.17	1	0.48	3.5	1.34	0.019	0.02	5
NCS FC 28148	Coal ash	48.03	35.8	2.81	3.27	0.69	0.25	1.81	1.08	1.29	0.049	0.0073	5
NCS FC 28149	Coal ash	35.54	25.92	7.56	14.92	1.63	0.72	0.39	1.51	1.3	0.032	0.017	5
NCS FC 28150	Coal ash	47.64	26.03	5.79	10.44	1.87	0.091	2.81	0.56	1.24	0.042	0.097	5
NCS FC 28151	Coal ash	43.42	28.53	15.18	3.33	1.21	0.12	1.29	0.87	1.25	0.062	0.042	5
Number	Name	Chemical Composition(Percent)										Unit Size (in g)	
		SiO ₂	CaO	MgO	Al ₂ O ₃	Fe ₂ O ₃	SO ₃	TiO ₂	K ₂ O	Na ₂ O	P ₂ O ₅		
NCS FC28038	Coal Ash	21.22	15.69	5.09	10.72	35.34	7.46	0.44	0.22	1.84	0.16	20	
NCS FC28039	Coal Ash	52.6	8.04	1.16	27.37	7.43	0.46	0.76	0.83	0.28	0.32	20	
NCS FC28040	Coal Ash	56.22	8.6	1.4	20.88	8.7	0.51	0.66	1.25	0.52	0.36	20	
NCS FC28041	Coal Ash	45.42	7.2	1.15	35.96	5.15	0.08*	1.32	0.7	0.82	0.89	20	

Section 9 Coal(Powder)

Number	Name	Si	Al	Fe	Ca	Chemical Composition(Percent)							Unit Size (in g)	
NCS FC 28152	Element of Coal waste rock	20.59	10.76	2.57	0.34	0.53	0.026	1.27	0.15	0.012	0.023	0.44	50	
Number	Name	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	P ₂ O ₅	K ₂ O	Na ₂ O	TiO ₂	V ₂ O ₅	MnO	Unit Size (in g)	
NCS FC 28153	Ash of Coal waste rock	60.03	27.71	5.01	0.65	1.2	0.082	4.18	0.53	1.04	0.028	0.041	5	
Number	Name	St.d	Ad	Vd	Qgr,d(MJ/kg)	Coal Type		Chemical Composition(Percent)					Unit Size (in g)	
NCS FC 28201	Coal	0.47	10.45	17.7	31.57	bitumite							50	
NCS FC 28202	Coal	1.05	8.65	33.36	30.77	bitumite							50	
NCS FC 28203	Coal	0.71	10.36	20.69	31.66	bitumite							50	
NCS FC 28204	Coal	0.96	8.09	34.25	31.34	bitumite							50	
NCS FC 28205	Coal	0.31	14.49	11.39	29.98	anthracite							50	
NCS FC 28206	Coal	0.86	14.42	28.56	26.73	bitumite							50	
NCS FC 28207	Coal	0.43	16.26	7.26	26.1	anthracite							50	
NCS FC 28208	Coal	1.03	15.48	20.57	29.19	bitumite							50	
NCS FC 28209	Coal	1.76	27.33	8.21	23.96	anthracite							50	
NCS FC 28210	Coal	3.17	25.9	8.40	24.47	anthracite							50	
NCS FC 28211	Coal	0.88	13.41	9.08	30.23	anthracite							50	
NCS FC 28212	Coal	0.53	8.52	25.65	30.94	bitumite							50	
NCS FC 28213	Coal	1.49	9.88	36.2	30.76	bitumite							50	
NCS FC 28214	Coal	1.66	27.85	29.21	23.63	bitumite							50	
NCS FC 28215	Coal	2.17	25.2	28.79	24.83	bitumite							50	
NCS FC 28216	Coal	2.79	8.7	10.78	32.34	anthracite							50	
NCS FC 28217	Coal	1.79	8.68	36.06	31.33	bitumite							50	
NCS FC 28218	Coal	1.35	14.58	6.16	29.26	anthracite							50	
NCS FC 28219	Coal	0.28	6.1	31.24	30.09	bitumite							50	
NCS FC 28220	Coal	4.03	16.52	11.15	28.67	anthracite							50	
NCS FC 28221	Coal	4.04	18.98	32	27.79	bitumite							50	
Number	Name	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO	P ₂ O ₅	K ₂ O	Na ₂ O	TiO ₂	V ₂ O ₅	MnO	SO ₃	Unit Size (in g)
NCS FC 28154	Ash of Coal	53.17	32.02	6.47	2.28	0.9	0.19	1.37	0.41	1.34	0.027	0.035	0.78	5
Number	Name	Fusibility(°C)		Deformation temperature	Softening temperature	Hemisphering temperature	Fluid temperature	Unit size						
NCS FS28001	Fusibility of Coal Ash	Mildly reducing atmosphere	Certified Value	1161	1190	1198	1204	5g						
		Oxidizing atmosphere	Certified Value	1211	1230	1239	1252							
NCS FS28002	Fusibility of Coal Ash	Mildly reducing atmosphere	Certified Value	1217	1340	1357	1369							
		Oxidizing atmosphere	Certified Value	1356	1408	1420	1445							
NCS FS28003	Fusibility of Coal Ash	Mildly reducing atmosphere	Certified Value	1285	1314	1322	1340							
		Oxidizing atmosphere	Certified Value	1314	1345	1360	1381							
Number	Name	Fusibility(°C)		Deformation temperature	Softening temperature	Hemisphering temperature	Fluid temperature	Unit size						
NCS FS 91001c	Fusibility of coal ash	Mildly reducing atmosphere	Certified Value	1147	1219	1251	1305	30g						
		Oxidizing atmosphere	Certified Value	1321	1345	1358	1376							
		Strong reducing atmosphere	Certified Value	1376	1407	1427	1464							

Section 10 Environmental

Number	Name	Chemical Composition									Unit Size (in g)						
		Al(10 ⁻²)	As(10 ⁻⁶)	B(10 ⁻⁶)	Ba(10 ⁻⁶)	Be(10 ⁻⁹)	Bi(10 ⁻⁹)	Br(10 ⁻⁶)	Ca(10 ⁻²)	Cd(10 ⁻⁹)		Ce(10 ⁻⁶)	Cl(10 ⁻²)	Co(10 ⁻⁶)	Cr(10 ⁻⁶)	Cs(10 ⁻⁶)	Cu(10 ⁻⁶)
NCS ZC 73016	Chicken	0.016	0.109	0.76	1.5	(1.3)	1.3	1.6									35
NCS ZC 73017	Apple	0.007	0.02	19	2.5	(1.0)	(2.5)	(0.2)									35
NCS ZC 73016	Chicken	0.022	(5)	0.06	0.153	(0.010)	0.59	0.07	1.46	1.1							
NCS ZC 73017	Apple	0.049	5.8	0.025	(0.0080)	0.026	0.3	(0.02)	2.5	(1.1)							
NCS ZC 73016	Chicken	(0.8)	(0.7)	31	(1.4)	(2)		3.6	(0.26)	(0.08)							
NCS ZC 73017	Apple	(0.65)	(0.7)	16	0.95			(2)	(0.25)	0.12							
NCS ZC 73016	Chicken	1.46	0.024	0.034	(0.10)	0.128	1.65	0.11	14.8	0.144							
NCS ZC 73017	Apple	0.77	0.014	0.115		0.039	2.7	0.08	0.31	0.116							
NCS ZC 73016	Chicken	(0.006)	0.0095	0.15	0.96	0.11	2.8	33	0.86								
NCS ZC 73017	Apple		(0.006)	0.14	0.066	0.084	1.8	5	0.063	(0.006)							
NCS ZC 73016	Chicken	(4.5)	0.49	(0.013)	1.3	0.64	(0.23)	(4.5)		(14)							
NCS ZC 73017	Apple		(0.018)	0.005	1.5	6.9		4		(1.8)							
NCS ZC 73016	Chicken	(0.11)	(3)	(0.06)	0.007	(0.7)	26	(5.0)									
NCS ZC 73017	Apple	(0.12)	8.2	(0.028)	0.008	(0.66)	2.1	(2.4)									
Number	Name	Content(10 ⁻⁶)									Unit Size (in g)						
NCS ZC73008a	Rice	0.004±0.001	0.015±0.001	0.08±0.01	0.7±0.2	0.15±0.03	(0.7)	(1.4)		0.007±0.001	30						
NCS ZC73009a	Wheat	0.002±0.001	0.013±0.003	0.04±0.01	-0.6	2.3±0.2		1.7±0.6		0.030±0.002	30						
NCS ZC73012a	Cabbage	0.003±0.001	0.018±0.004	0.05±0.01	26±3	6.3±0.6	1.2±0.4	(2)	(4)	0.55±0.02	25						
NCS ZC73013a	Spinage	0.018±0.002	0.16±0.03	0.54±0.06	30.6±4.2	10.9±1.7	40±7	16±3	9.6±2.7	0.88±0.09	20						
NCS ZC73014a	Tea	0.010±0.002	0.25±0.02	0.10±0.02	12.6±0.8	32±3	50±8	13±2	(3)	0.47±0.02	25						
NCS ZC73015a	Milk Powder		(0.01)	0.03±0.01	2.7±0.4	0.59±0.06	(0.5)	(10)	(6)	0.94±0.03	30						
NCS ZC73029a	Rice	0.003±0.001	(0.02)	0.12±0.02	0.72±0.13	0.31±0.07	(0.6)	(1.30)	(0.50)	0.007±0.002	30						
NCS ZC73036a	Green tea	0.008±0.002	0.12±0.02	0.16±0.02	11±2	32±3	12±2	31±5	3.1±0.8	0.34#(0.32-0.37)	25						
NCS ZC73008a	Rice	53±4	0.004±0.002		0.006±0.002	-0.08	0.003±0.001	3.0±0.2	0.32±0.08	0.19±0.05	(0.2)						
NCS ZC73009a	Wheat	21±3	(0.01)	(0.08)	0.006±0.001	0.09±0.03	0.007±0.001	3.0±0.3	0.7±0.1	0.32±0.06							
NCS ZC73012a	Cabbage	21±3	0.02±0.01	(0.4)	0.06±0.01	0.49±0.08	0.14±0.01	3.1±0.2	1.1±0.3	0.53±0.12	(2)						
NCS ZC73013a	Spinage	190±20	1.5±0.2		0.49±0.03	9.0±1.3	0.23±0.04	10.4±0.8	85±10	42±6	26±3						
NCS ZC73014a	Tea	46±5	1.3±0.2	0.050±0.004	0.28±0.02	0.79±0.11	0.19±0.02	8.3±0.5	130±20	80±10	27#(25-29)						
NCS ZC73015a	Milk Powder	(2)	(5)**		(0.04)	(0.2)	0.035±0.003	0.50±0.11	(0.20)	(0.1)	(0.3)						
NCS ZC73029a	Rice	320±40	(3)**		0.010±0.002	(0.08)	0.023±0.003	2.4±0.2	0.25#(0.20-0.37)	0.18±0.05	0.14±0.05						
NCS ZC73036a	Green tea	200±20	0.51±0.07	0.05±0.01	0.23±0.02	0.6±0.1	0.42±0.05	13.2±0.9	54±8	33±5	20±4						
NCS ZC73008a	Rice		4.0±0.8	(0.3)	(1.8)	4.2±0.6	(0.1)		0.090±0.005	(2.6)**	0.016±0.004						
NCS ZC73009a	Wheat		25±2	1.0±0.3	(1.4)	(1.6)	(0.2)		0.22±0.01	0.013±0.003	0.03±0.01						
NCS ZC73012a	Cabbage		56±5	1.1±0.2	(3)	2.1±0.7	0.22±0.05	0.7±0.2	1.49±0.04	0.02±0.01	0.33±0.04						
NCS ZC73013a	Spinage	(13)	0.093±0.007*	120±10	21±8	21±5	16±3	0.6±0.2	4.0±0.2	0.8±0.1	3.8±0.5						
NCS ZC73014a	Tea		149±7	140±20	13±5	8±1	28±4	(0.2)	1.45±0.05	1.01±0.08	0.25±0.02						
NCS ZC73015a	Milk Powder		5.1±1.9	(0.2)		(1.5)	(0.06)	2.6±0.9	1.16±0.05	4.6±1.4**	0.077±0.012						
NCS ZC73029a	Rice		4.5±1.1	(0.3)	(2)	3.5±0.8	(0.07)	(0.1)	0.083±0.008	(1.7)**	0.019±0.005						
NCS ZC73036a	Green tea	(155)	161±18	58±7	7.5±1.6	7.3±0.7	11±2	0.16±0.06	1.31±0.05	0.34±0.04	0.20±0.03						

Section 10 Environmental

		Lu**	Mg*	Mn	Mo	N*	Na	Nb	Nd	Ni	P*
NCS ZC73008a	Rice	(0.04)	0.013±0.001	11.1±0.7	0.42±0.04	1.30±0.05	11.8±1.6	(1.3)**	1.0±0.3**	0.21±0.02	0.078±0.003
NCS ZC73009a	Wheat	(0.07)	0.062±0.004	10.0±0.4	0.31±0.02	2.1±0.1	37±5		0.005±0.001	(0.08)	0.18±0.01
NCS ZC73012a	Cabbage	0.11±0.04	0.22±0.01	21±1	0.58±0.05	2.4±0.2	0.75±0.07*	(0.01)	0.007±0.002	0.5±0.2	0.34±0.02
NCS ZC73013a	Spinage	5.4±1.2	0.99±0.07	80±4	0.65±0.08	3.9±0.3	1.8±0.07*		0.65±0.09	1.9±0.2	0.41±0.02
NCS ZC73014a	Tea	16±3	0.18±0.01	0.125±0.004*	0.04±0.01	3.4±0.3	22.6±6.7		0.66±0.08		0.24±0.01
NCS ZC73015a	Milk Powder	(0.04)	0.094±0.005	0.36±0.11	0.32±0.02	(4)	0.32±0.02*		0.9±0.2**		0.77±0.06
NCS ZC73029a	Rice		0.017±0.001	9.6±0.4	0.56±0.04	1.3±0.1	(14)		1.0±0.2**	0.27±0.03	0.087±0.006
NCS ZC73036a	Green tea	6±1	0.150±0.005	0.117±0.004*	0.053±0.012	3.7±0.3	15±4	(0.15)	0.25±0.04	4.4±0.3	0.27±0.02
		Pb	Pr**	Rb	S*	Sb	Sc**	Se	Si	Sm**	Sn
NCS ZC73008a	Rice	0.10±0.02	0.5±0.2	1.8±0.2	0.10±0.01	0.009±0.003	(6)	0.036±0.008	48±15	0.3±0.1	
NCS ZC73009a	Wheat	0.09±0.03	1.2±0.3	3.2±0.3	0.15±0.01	(6)**	(11)	(0.03)	(75)	0.9±0.2	
NCS ZC73012a	Cabbage	0.13±0.05	1.6±0.3	15.7±1.1	0.62±0.03	(0.01)	14.7±5.3	0.05±0.02		1.4±0.4	
NCS ZC73013a	Spinage	1.07±0.09	170±30	31±2	0.44±0.03	0.038±0.007	180±40	(0.09)	0.49±0.15*	130±20	0.062±0.007
NCS ZC73014a	Tea	1.09±0.13	160#(150-180)	45.9±3.3	0.26±0.02	0.05±0.01	89±17	0.09±0.04	0.04±0.01*	120±20	0.06±0.01
NCS ZC73015a	Milk Powder	(0.05)	(0.50)	10.6±0.6	0.25±0.01	(0.004)	(28)	0.24±0.03		(0.3)	(0.010)
NCS ZC73029a	Rice	0.08±0.02	0.40±0.13	4.0±0.3	0.11±0.01	0.007±0.003	(60)	0.06±0.01		0.32±0.12	
NCS ZC73036a	Green tea	1.6±0.2	64±7	81±6	0.23±0.03	0.055±0.007	54±10	0.09±0.03	0.08±0.01*	54±6	0.11±0.02
		Sr	Tb**	Th**	Ti	Tl**	Tm**	U**	V	Y	Yb**
NCS ZC73008a	Rice	0.15±0.03	0.07±0.03	(1)		0.23±0.05	(0.05)	(0.8)	(0.02)	0.21±0.05	0.19±0.05
NCS ZC73009a	Wheat	2.6±0.2	(0.2)	(1.5)		(0.3)	(0.07)		(0.04)	0.19±0.04	0.28±0.04
NCS ZC73012a	Cabbage	57±2	0.3±0.1	2.8±0.8		4.8±1.1	0.08±0.02	100±20	(0.1)	0.28±0.05	0.48±0.13
NCS ZC73013a	Spinage	120±7	17±3	220±70	(37)	44±10	5.5±1.4	47±12	(20)	0.7±0.1	36±5
NCS ZC73014a	Tea	13.7±0.7	21±2	33.4±7.2	(11)	47±8	14±2	13±2	0.3±0.1	2.0±0.2	100±20
NCS ZC73015a	Milk Powder	6.2±0.8	(0.06)	(2)	(3.5)	(0.3)		1.6±0.6	(0.04)	0.12±0.02	0.07±0.03
NCS ZC73029a	Rice	0.17±0.04	0.07±0.02	(0.8)		(0.2)	(0.04)	(0.6)	(0.02)	0.17±0.03	0.13±0.03
NCS ZC73036a	Green tea	14.0±1.3	9±1	25±8	(11)	57±11	5.4±0.9	8.2±1.5	0.26±0.03	0.51±0.05	36±5
		Zn									
NCS ZC73008a	Rice	13.3±1.2									
NCS ZC73009a	Wheat	12.3±1.5									
NCS ZC73012a	Cabbage	12.3±1.1									
NCS ZC73013a	Spinage	42±4									
NCS ZC73014a	Tea	27±3									
NCS ZC73015a	Milk Powder	32±3									
NCS ZC73029a	Rice	12.4±1.2									
NCS ZC73036a	Green tea	26±3									

Section 10 Environmental

Number	Name	Chemical Composition								Unit Size (in g)
		Ag(10^{-9})	Al(10^{-2})	As(10^{-6})	B(10^{-6})	Ba(10^{-6})	Be(10^{-9})	Bi(10^{-9})		
NCS ZC 73019	Fresh Kidney beans	(5)	0.043	0.15	21	11.4	14	4.8		35
NCS ZC 73020	Garlic	(5)	0.021	0.31	7.5	4.1	4.4	13		35
NCS ZC 73022	Scallop	(8)	0.0156	3.6	12	0.62	3.2	3.8		12
		Br(10^{-6})	Ca(10^{-2})	Cd(10^{-6})	Ce(10^{-6})	Cl(10^{-2})	Co(10^{-6})	Cr(10^{-6})	Cs(10^{-6})	Cu(10^{-6})
NCS ZC 73019	Fresh Kidney beans	0.62	0.67	(0.020)	0.35	0.14	0.29	0.66	0.036	8.7
NCS ZC 73020	Garlic	1.9	0.081	0.062	0.16	0.075	0.056	0.3	0.025	4.6
NCS ZC 73022	Scallop	32	0.075	1.06	0.053	0.81	0.047	0.28	0.014	1.34
		Dy(10^{-9})	Er(10^{-9})	Eu(10^{-9})	F(10^{-6})	Fe(10^{-6})	Gd(10^{-9})	Ge(10^{-9})	Hf(10^{-6})	Hg(10^{-9})
NCS ZC 73019	Fresh Kidney beans	23	12	7.2	(15)	330	28	14		3.8
NCS ZC 73020	Garlic	8.9	4.2	3.2	(35)	205	11.4	(12)	(0.04)	4
NCS ZC 73022	Scallop	5.3	3.3	0.9	(13)	41	5.2	(8)		40
		Ho(10^{-9})	I(10^{-6})	K(10^{-2})	La(10^{-6})	Li(10^{-6})	Lu(10^{-9})	Mg(10^{-2})	Mn(10^{-6})	Mo(10^{-6})
NCS ZC 73019	Fresh Kidney beans	4.5	(0.14)	2.26	0.17	0.31	1.77	0.336	29.5	4.9
NCS ZC 73020	Garlic	1.6	0.57	1.14	0.092	0.13	0.58	0.105	13.4	0.21
NCS ZC 73022	Scallop	1.2	1.83	1.15	0.037	0.13	0.49	0.174	19.2	0.066
		N(10^{-2})	Na(10^{-2})	Nd(10^{-6})	Ni(10^{-6})	P(10^{-2})	Pb(10^{-6})	Pr(10^{-9})	Rb(10^{-6})	S(10^{-2})
NCS ZC 73019	Fresh Kidney beans	2.79	0.081	0.14	4.4	0.38	0.66	38	9.5	0.195
NCS ZC 73020	Garlic	3.22	0.095	0.066	0.92	0.466	0.72	17	6.5	1.01
NCS ZC 73022	Scallop	12.8	0.46	0.025	0.29	0.88	(0.12)	6	5.1	1.5
		Sb(10^{-6})	Sc(10^{-6})	Se(10^{-6})	Si(10^{-2})	Sm(10^{-9})	Sn(10^{-6})	Sr(10^{-6})	Tb(10^{-9})	Th(10^{-6})
NCS ZC 73019	Fresh Kidney beans	0.028	0.067	0.043	(0.27)	29	(0.2)	55	4.1	0.055
NCS ZC 73020	Garlic	0.023	0.021	0.39	(0.08)	13	(0.07)	12.3	1.66	0.024
NCS ZC 73022	Scallop	(0.014)	(0.012)	1.5	(0.013)	4.8	(0.13)	6.5	0.84	(0.012)
		Ti(10^{-6})	Tl(10^{-6})	Tm(10^{-9})	U(10^{-9})	V(10^{-6})	Y(10^{-6})	Yb(10^{-9})	Zn(10^{-6})	Ash(%)
NCS ZC 73019	Fresh Kidney beans	21	4.2	1.8	90	0.51	0.155	11	32	(6.9)
NCS ZC 73020	Garlic	10	20	(0.65)	75	0.2	0.057	(4.2)	21.7	(3.4)
NCS ZC 73022	Scallop	(6)	2.5	0.52	7.3	0.36	0.107	3.2	75	(4.5)

Section 10 Environmental

Number	Name	Chemical Composition								Unit Size (in g)	
		Ag(10 ⁻³)	Al(10 ⁻²)	As(10 ⁻⁶)	B(10 ⁻⁶)	Ba(10 ⁻⁶)	Be(10 ⁻³)	Bi(10 ⁻³)			
NCS ZC 73023	Spirulina	42	0.033	0.22	(2.8)	11	21	81		12	
NCS ZC 73024	Pollen	(5.8)	(0.045)	0.095	85	2.9	10	4.4		12	
NCS ZC 73025	Ginseng	(4)	(0.036)	(0.03)	10.5	35	5.3	(2.4)		12	
NCS ZC 73026	Huang-qi	(8)	0.18	0.57	16.8	20.5	50	14		35	
		Br(10 ⁻⁶)	Ca(10 ⁻²)	Cd(10 ⁻⁶)	Ce(10 ⁻⁶)	Cl(10 ⁻²)	Co(10 ⁻⁶)	Cr(10 ⁻⁶)	Cs(10 ⁻⁶)	Cu(10 ⁻⁶)	
NCS ZC 73023	Spirulina	4.8	0.158	0.37	7.2	0.49	0.41	1.5	0.034	7.7	
NCS ZC 73024	pollen	1.1	0.308	0.037	0.35	0.033	0.1	0.51	0.061	8.2	
NCS ZC 73025	Gineseng	(0.27)	0.406	0.033	0.06	0.023	0.072	0.13	0.017	5.9	
NCS ZC 73026	Huang-qi	2.6	0.456	0.042	2.03	0.042	0.44	2.2	0.235	8.5	
		Dy(10 ⁻³)	Er(10 ⁻³)	Eu(10 ⁻³)	F(10 ⁻⁶)	Fe(10 ⁻⁶)	Gd(10 ⁻³)	Ge(10 ⁻³)	Hf(10 ⁻⁶)	Hg(10 ⁻³)	
NCS ZC 73023	Spirulina	186	78	87	(37)	0.11	355	(36)	(0.03)	(15)	
NCS ZC 73024	pollen	20	10.8	6.2	(12)	212	27	(8)		3.2	
NCS ZC 73025	Gineseng	3.2	1.7	(8)	(9)	55	5.5			4	
NCS ZC 73026	Huang-qi	122	60	32	(20)	0.113	160	(26)		(12)	
		Ho(10 ⁻³)	I(10 ⁻⁶)	K(10 ⁻²)	La(10 ⁻⁶)	Li(10 ⁻⁶)	Lu(10 ⁻³)	Mg(10 ⁻²)	Mn(10 ⁻⁶)	Mo(10 ⁻⁶)	
NCS ZC 73023	Spirulina	33	0.54	1.41	4.8	0.24	9.5	0.287	31.7	0.3	
NCS ZC 73024	pollen	3.8	(0.16)	0.585	0.17	0.21	1.22	0.163	22.7	0.42	
NCS ZC 73025	Gineseng	0.67	(0.1)	0.96	0.045	0.087	(0.3)	0.137	21	0.18	
NCS ZC 73026	Huang-qi	23	0.3	0.7	1.07	1.25	9	0.228	33	5.7	
		N(10 ⁻²)	Na(10 ⁻²)	Nd(10 ⁻⁶)	Ni(10 ⁻⁶)	P(10 ⁻²)	Pb(10 ⁻⁶)	Pr(10 ⁻³)	Rb(10 ⁻⁶)	S(10 ⁻²)	
NCS ZC 73023	Spirulina	10.6	1.9	2.4	1.44	1.17	2.8	705	1.5	0.78	
NCS ZC 73024	pollen	4.3	(0.009)	0.14	0.5	0.65	0.25	38	6.4	0.38	
NCS ZC 73025	Gineseng	1.9	0.0077	0.024	1.11	0.263	0.12	6.5	4.1	0.11	
NCS ZC 73026	Huang-qi	2.35	0.145	0.9	2.26	0.225	1.44	231	10.5	0.193	
		Sb(10 ⁻⁶)	Sc(10 ⁻⁶)	Se(10 ⁻⁶)	Si(10 ⁻²)	Sm(10 ⁻³)	Sn(10 ⁻⁶)	Sr(10 ⁻⁶)	Tb(10 ⁻³)	Th(10 ⁻⁶)	
NCS ZC 73024	pollen	0.083	0.25	0.24	(0.23)	354	(0.2)	36	41	0.17	
NCS ZC 73025	Gineseng	0.014	0.068	0.03	(0.15)	30		13.2	3.7	0.53	
NCS ZC 73026	Huang-qi	(0.008)	(0.017)	0.012	(0.034)	4.5	(0.02)	33	0.65	(0.008)	
		0.063	(0.30)	0.071	(0.71)	172	(0.10)	51	22	0.3	
		Ti(10 ⁻⁶)	Tl(10 ⁻⁶)	Tm(10 ⁻³)	U(10 ⁻³)	V(10 ⁻⁶)	Y(10 ⁻⁶)	Yb(10 ⁻³)	Zn(10 ⁻⁶)	Ash(%)	
NCS ZC 73023	Spirulina	34	51	10	31	0.7	0.9	62	42	(8.8)	
NCS ZC 73024	pollen	20	11	1.4	12	0.46	0.12	9.8	31	(3.2)	
NCS ZC 73025	Gineseng	5.8	8.2	(0.3)	3.5	0.073	0.16	1.8	11.1	(3.0)	
NCS ZC 73026	Huang-qi	102	51	8.8	122	2.56	0.6	62	22.3	(5.16)	
Number	Name	Chemical Composition(ug/g)								Unit Size (in g)	
NCS ZC 71001	Beef Liver	K*	Na*	P*	Cl*	Ca	Mg	Cu	Zn	Mn	25
		1.05	0.22	1.30	0.29	189	668	91.6	192	8.92	
		Fe	Se	Mo	Sr	Co	S*	Ni	Al	Br	
NCS ZC 71001	Beef Liver	346	0.56	3.76	0.53	0.254	(1.27)	(0.28)	(12)	(5.6)	
		Ba	Cd	Hg	Rb	Pb	F	Ti			
NCS ZC 71001	Beef Liver	(3.4)	(0.388)	(0.18)	(26)	(0.54)	(17)	(0.63)			

Section 10 Environmental

Number	Name	Chemical Composition									Unit Size (in g)
		Ag(10 ⁻⁹)	Al(10 ⁻²)	As(10 ⁻⁶)	B(10 ⁻⁹)	Ba(10 ⁻⁶)	Be(10 ⁻⁹)	Bi(10 ⁻⁹)			
NCS ZC 73031	Carrot	(0.006)	(0.046)	0.11±0.02	18.1±1.1	24±3	6.5±1.5	(2.5)			35
NCS ZC 73031	Carrot	Br(10 ⁻⁶) (2.4)	Ca(10 ⁻²) 0.255±0.010	Cd(10 ⁻⁶) 0.034±0.004	Ce(10 ⁻⁶) 177±38	Cl(10 ⁻²) (0.23)	Co(10 ⁻⁹) 66±7	Cr(10 ⁻⁶) 1.04±0.13	Cs(10 ⁻⁹) 42±4	Cu(10 ⁻⁶) 4.1±0.3	
NCS ZC 73031	Carrot	Dy(10 ⁻⁹) 11.0±1.4	Er(10 ⁻⁹) 5.6±0.6	Eu(10 ⁻⁹) 7.6±2.3	Fe(10 ⁻⁶) 148±15	Gd(10 ⁻⁹) 14.5±2.8	Ge(10 ⁻⁹) 6.6±1.5	Hg(10 ⁻⁹) 3.2±0.8	Ho(10 ⁻⁹) 2.0±0.2	I(10 ⁻⁶) (0.08)	
NCS ZC 73031	Carrot	K(10 ⁻²) 1.08±0.04	La(10 ⁻⁹) 114±24	Li(10 ⁻⁶) 0.16±0.02	Lu(10 ⁻⁹) (0.8)	Mg(10 ⁻²) 0.091±0.003	Mn(10 ⁻⁶) 12.1±0.5	Mo(10 ⁻⁶) 0.10±0.01	N(10 ⁻²) (1.06)	Na(10 ⁻²) 0.65±0.03*	
NCS ZC 73031	Carrot	Nb(10 ⁻⁹) 24±4	Nd(10 ⁻⁹) 79±9	Ni(10 ⁻⁶) 0.67±0.10	P(10 ⁻²) 0.23±0.02	Pb(10 ⁻⁶) 0.43±0.07	Pr(10 ⁻⁹) 21±3	Rb(10 ⁻⁶) 6.9±0.5	S(10 ⁻²) (0.1)	Sb(10 ⁻⁹) (15)	
NCS ZC 73031	Carrot	Sc(10 ⁻⁹) (32)	Se(10 ⁻⁶) 0.031±0.010	Si(10 ⁻²) (0.156)	Sm(10 ⁻⁹) 14.3±2.3	Sn(10 ⁻⁹) (22)	Sr(10 ⁻⁶) 22±2	Tb(10 ⁻⁹) 2.1±0.5	Th(10 ⁻⁹) 28±6	Ti(10 ⁻⁶) (12)	
NCS ZC 73031	Carrot	Tl(10 ⁻⁹) 10.7±2.1	Tm(10 ⁻⁹) 0.83±0.14	U(10 ⁻⁹) 9.8±1.7	V(10 ⁻⁶) (0.21)	Y(10 ⁻⁶) 0.09±0.02	Yb(10 ⁻⁹) 5.5±0.8	Zn(10 ⁻⁶) 11.2±0.5			
Number	Name	Chemical Composition(ug/g)									Unit Size (in g)
NCS ZC71002	Organochlorine	α-666	β-666	γ-666	δ-666	PCB28	PCB52*	P,P'-DDE	P,P'-DDD	O,P'-DDT	
NCS ZC71003	Pesticides and	175	395	33.2	42.1	74	13.2	108	114	160	20
NCS ZC71004	Polychlorinated	650	907	161	104	16.2	382	228	493		20
NCS ZC71005	Biphenyls	229	561	51.8	49	11.8 x 10 ²		369	107	146	20
NCS ZC71005	Congeners in soil	8.4	15.5	6.5	3.9*	400		342	36	24	20
NCS ZC71006	Organochlorine	23.1 x 10 ²	684	176	20.6			360	295	52	20
NCS ZC71007	Polychlorinated					9.1 x 10 ²					20
NCS ZC71007	Biphenyls										
NCS ZC71007	Congeners in soil										
NCS ZC71002	Organochlorine	P,P'-DDT	PCB52	PCB101	PCB118	PCB153	PCB138	PCB180	PCB138*		
NCS ZC71003	Pesticides and	609									
NCS ZC71003	Polychlorinated	21.2 x 10 ²									
NCS ZC71004	Biphenyls	511	291	109	126	16.5	18.6	7			
NCS ZC71005	Congeners in soil	225	253	230	192	118	151	41.3			
NCS ZC71006	Organochlorine	232									
NCS ZC71007	Polychlorinated		6.2 x 10 ²	5.6 x 10 ²	396	276		102	384		
NCS ZC71007	Biphenyls										
NCS ZC71007	Congeners in soil										

Section 10 Environmental

Number	Name	Chemical Composition(ug/g)										Unit Size (in g)
		Ag	As	B	Ba	Be	Bi	Br	Cd	Ce		
NCS ZC71008	Agricultural Soils	0.56±0.06	22.5±0.5	41±4	448±12	2.15±0.11	1.68±0.07	4.5±0.3	2.02±0.10	67±4	50	
NCS ZC71009	Agricultural Soils	0.44±0.04	83.4±2.4	60±4	502±16	2.62±0.12	47.8±2.4	6.0±0.5	14.2±0.7	83±4	50	
NCS ZC71010	Agricultural Soils	0.91±0.11	12.5±0.4	66±4	480±20	2.32±0.09	0.58±0.08	5.2±0.5	0.276±0.029	79±5	50	
NCS ZC71011	Agricultural Soils	0.259±0.020	41.9±1.3	92±4	351±9	1.55±0.06	1.99±0.09	1.8±0.5	0.276±0.012	87±5	50	
NCS ZC71012	Agricultural Soils	7.5±0.9	222±7	50±3	713±21	1.75±0.08	6.0±0.5	1.8±0.6	0.62±0.04	70.2±2.9	50	
NCS ZC71013	Agricultural Soils	0.128±0.019	19.3±1.1	70±4	386±12	2.79±0.14	0.62±0.05	4.55±0.29	0.398±0.020	87±4	50	
		Cl	Co	Cr	Cu	Dy	Er	Eu	F	Ga	Gd	
NCS ZC71008	Agricultural Soils	94±6	13.4±0.6	70±5	76±5	4.13±0.23	2.36±0.10	1.14±0.03	532±26	13.2±0.6	4.55±0.23	
NCS ZC71009	Agricultural Soils	69±6	14.4±0.5	92±4	69.8±2.1	5.63±0.18	3.15±0.05	1.48±0.06	566±10	19.5±0.6	6.15±0.26	
NCS ZC71010	Agricultural Soils	119±7	13.7±0.5	78.2±2.9	104±5	5.53±0.14	3.10±0.12	1.44±0.04	520±21	16.7±0.6	6.03±0.28	
NCS ZC71011	Agricultural Soils	45±4	13.4±0.5	59.0±2.6	69±3	5.04±0.21	2.99±0.11	1.16±0.04	353±17	12.6±0.8	5.27±0.28	
NCS ZC71012	Agricultural Soils	52±5	9.17±0.29	27.5±0.9	301±11	3.23±0.16	1.79±0.07	1.44±0.05	762±45	21.5±1.0	4.20±0.27	
NCS ZC71013	Agricultural Soils	34±5	23.9±1.0	87.0±1.5	53.1±1.3	5.41±0.25	3.16±0.15	1.40±0.06	0.128*±0.009*	21.8±1.0	5.8±0.4	
		Ge	Hg	Ho	I	La	Li	Lu	Mn	Mo	N (%)	
NCS ZC71008	Agricultural Soils	1.33±0.10	0.205±0.013	0.83±0.07	2.77±0.13	36.7±1.1	38.4±2.1	0.361±0.023	648±13	4.28±0.19	0.281±0.010	
NCS ZC71009	Agricultural Soils	1.61±0.14	0.62±0.04	1.12±0.07	2.19±0.10	45.5±2.3	46.7±1.8	0.459±0.021	438±12	1.1±0.4	0.276±0.009	
NCS ZC71010	Agricultural Soils	1.48±0.07	3.44±0.25	1.09±0.07	1.58±0.11	42.7±2.4	41.1±1.9	0.456±0.026	517±14	0.63±0.06	0.218±0.008	
NCS ZC71011	Agricultural Soils	1.35±0.12	0.074±0.006	1.02±0.04	1.11±0.10	42.3±2.2	29.9±1.0	0.45±0.03	424±13	1.40±0.09	0.120±0.004	
NCS ZC71012	Agricultural Soils	1.35±0.07	0.087±0.010	0.63±0.04	1.37±0.15	40.3±1.5	18.7±1.0	0.272±0.015	725±23	26.4±1.7	613**±19**	
NCS ZC71013	Agricultural Soils	1.72±0.07	0.133±0.014	1.12±0.07	3.54±0.28	43.0±2.6	49.0±2.4	0.49±0.04	0.117*±0.004*	1.42±0.09	0.154±0.005	
		Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	
NCS ZC71008	Agricultural Soils	11.5±0.3	28.7±1.2	28.7±1.3	887±23	92±5	7.7±0.4	78±5	0.111*±0.004*	3.4±0.4	10.0±0.5	
NCS ZC71009	Agricultural Soils	17.0±0.9	37.8±1.5	40.9±1.6	660±22	372±19	10.0±0.4	114±4	502±12	22.1±1.9	15.4±1.2	
NCS ZC71010	Agricultural Soils	16.4±0.8	36.9±1.5	34.7±1.2	833±13	153±6	9.9±0.3	101±4	447±16	2.03±0.25	12.6±0.5	
NCS ZC71011	Agricultural Soils	19.5±1.4	34.2±1.6	19.2±0.7	420±14	42.4±2.1	9.3±0.5	72±4	364±28	1.62±0.08	9.3±0.6	
NCS ZC71012	Agricultural Soils	14.8±0.6	29.1±1.5	9.9±0.4	0.106*±0.004*	340±11	8.0±0.4	109±5	0.301*±0.021*	27.3±2.2	7.3±0.3	
NCS ZC71013	Agricultural Soils	18.1±1.0	37.1±1.8	43.9±1.2	863±25	40.9±2.0	9.9±0.5	129±8	222±21	2.08±0.22	16.2±0.7	
		Se	Sm	Sn	Sr	Tb	Th	Tl	Tm	U	V	
NCS ZC71008	Agricultural Soils	1.96±0.18	5.40±0.20	7.6±0.5	236±4	0.74±0.05	11.0±0.7	1.26±0.05	0.363±0.023	3.19±0.22	86.6±2.9	
NCS ZC71009	Agricultural Soils	1.86±0.18	7.03±0.25	27.9±2.3	99.3±2.2	0.99±0.07	15.0±0.7	1.28±0.06	0.479±0.022	2.93±0.09	112±4	
NCS ZC71010	Agricultural Soils	0.44±0.04	6.95±0.20	54±5	103±3	0.97±0.07	13.5±0.6	0.65±0.04	0.47±0.03	2.64±0.14	95.1±2.6	
NCS ZC71011	Agricultural Soils	0.412±0.028	6.20±0.29	5.1±0.5	72.1±1.8	0.85±0.04	13.5±0.7	0.536±0.023	0.461±0.025	2.86±0.12	81.4±2.9	
NCS ZC71012	Agricultural Soils	2.82±0.21	5.08±0.26	10.0±0.6	260±5	0.606±0.024	9.9±0.4	0.977±0.023	0.274±0.018	3.19±0.12	91±5	
NCS ZC71013	Agricultural Soils	0.52±0.07	6.7±0.4	11.0±1.3	120±3	0.93±0.04	14.6±0.7	0.94±0.04	0.49±0.04	3.73±0.13	132±4	
		W	Y	Yb	Zn	Zr	F (watersoluble)	SiO ₂ (%)	Al ₂ O ₃ (%)	TFe ₂ O ₃ (%)	MgO (%)	
NCS ZC71008	Agricultural Soils	4.6±0.5	23.7±1.4	2.30±0.07	201±6	169±5	8.3±1.2	43.85±0.27	10.31±0.11	4.83±0.07	1.24±0.04	
NCS ZC71009	Agricultural Soils	2.56±0.10	30.0±1.2	3.01±0.08	221±7	232±7	8.7±1.1	62.54±0.22	15.41±0.09	5.24±0.11	0.932±0.023	
NCS ZC71010	Agricultural Soils	2.31±0.12	29.1±1.4	2.95±0.15	230±7	270±7	6.8±0.8	66.9±0.4	13.17±0.12	4.97±0.14	0.973±0.020	
NCS ZC71011	Agricultural Soils	3.13±0.19	28.1±1.1	2.92±0.12	89.7±2.5	377±17	1.89±0.28	77.1±0.4	9.45±0.10	3.89±0.08	0.512±0.011	
NCS ZC71012	Agricultural Soils	4.63±0.25	16.7±1.0	1.76±0.10	260±7	222±11	1.53±0.23	61.5±0.5	15.30±0.14	9.06±0.20	0.783±0.019	
NCS ZC71013	Agricultural Soils	2.28±0.13	28.8±1.6	3.13±0.18	117±4	212±12	4.3±0.6	61.5±0.6	16.27±0.14	7.23±0.12	1.223±0.015	
		CaO (%)	Na ₂ O (%)	K ₂ O (%)	TC (%)	Corg (%)	Ti (%)					
NCS ZC71008	Agricultural Soils	15.0±0.5	0.709±0.013	1.628±0.019	7.90±0.28	4.73±0.24	0.315±0.007					
NCS ZC71009	Agricultural Soils	1.000±0.025	1.00±0.04	1.78±0.04	2.81±0.13	2.75±0.15	0.493±0.020					
NCS ZC71010	Agricultural Soils	1.085±0.018	1.19±0.04	1.732±0.018	2.45±0.11	2.36±0.10	0.476±0.020					
NCS ZC71011	Agricultural Soils	0.412±0.010	0.475±0.012	1.45±0.04	1.11±0.06	1.07±0.06	0.571±0.029					
NCS ZC71012	Agricultural Soils	1.420±0.028	1.11±0.04	3.11±0.06	0.62±0.04	0.59±0.04	0.410±0.020					
NCS ZC71013	Agricultural Soils	1.28±0.03	0.35±0.04	2.62±0.06	1.29±0.07	1.12±0.04	0.546±0.017					

Section 10 Environmental

Number	Name	Chemical Composition(ug/g)										Unit Size (in g)
		Ag	As	B	Ba	Be	Bi	Br	Cd	Ce		
NCS ZC71014	Agricultural Soils	0.088±0.011	8.8±0.4	38.2±2.2	592±21	1.75±0.11	0.259±0.014	5.2±0.4	0.238±0.015	56.5±2.7		50
NCS ZC71015	Agricultural Soils	5.4±0.5	398±19	64.1±2.3	713±19	1.90±0.12	10.9±0.7	4.5±0.4	2.14±0.08	70±4		50
NCS ZC71016	Agricultural Soils	0.46±0.05	13.8±0.9	29.8±2.3	863±16	1.99±0.09	0.559±0.028	5.1±0.5	2.71±0.19	73.8±2.8		50
NCS ZC71017	Agricultural Soils	0.162±0.014	6.2±0.3	26.2±2.2	515±20	3.70±0.17	0.77±0.05	3.93±0.17	0.293±0.016	135±8		50
NCS ZC71018	Agricultural Soils	1.61±0.18	349±24	65±5	511±23	2.12±0.13	3.29±0.21	2.83±0.19	2.58±0.12	83±7		50
NCS ZC71019	Agricultural Soils	2.21±0.24	8.9±0.5	11.5±1.0	521±29	2.25±0.14	9.6±0.6	2.1±0.3	0.636±0.027	61±5		50
		Cl	Co	Cr	Cu	Dy	Er	Eu	F	Ga	Gd	
NCS ZC71014	Agricultural Soils	91±7	10.1±0.4	60.6±2.1	21.7±0.9	3.79±0.15	2.19±0.09	1.12±0.05	450±29	14.2±0.9	4.20±0.21	
NCS ZC71015	Agricultural Soils	74±6	15.0±0.9	65.3±2.5	76±4	4.59±0.15	2.64±0.10	1.36±0.06	504±25	15.5±1.1	5.04±0.20	
NCS ZC71016	Agricultural Soils	98±7	12.5±0.5	60.0±2.3	244±21	3.87±0.14	2.11±0.05	1.41±0.06	757±59	16.0±0.9	4.77±0.26	
NCS ZC71017	Agricultural Soils	74±7	11.7±0.5	39.9±2.6	56.3±2.8	6.7±0.5	3.68±0.23	1.69±0.10	547±19	24.2±1.1	7.8±0.6	
NCS ZC71018	Agricultural Soils	54±5	16.1±0.6	215±12	244±11	4.39±0.26	2.55±0.15	1.21±0.08	441±22	15.8±0.7	4.8±0.4	
NCS ZC71019	Agricultural Soils	52±3	8.74±0.28	43.5±2.0	74±4	3.43±0.22	2.04±0.13	0.87±0.06	440±21	14.7±0.7	3.65±0.25	
		Ge	Hg	Ho	I	La	Li	Lu	Mn	Mo	N (%)	
NCS ZC71014	Agricultural Soils	1.22±0.12	0.052±0.005	0.76±0.04	2.72±0.17	30.5±1.8	23.9±1.3	0.339±0.017	503±17	0.54±0.04	0.107±0.005	
NCS ZC71015	Agricultural Soils	1.40±0.10	0.101±0.009	0.92±0.04	2.38±0.10	36.5±1.9	33.3±1.7	0.406±0.017	0.104*±0.004*	1.30±0.12	0.126±0.006	
NCS ZC71016	Agricultural Soils	1.27±0.09	0.061±0.007	0.76±0.04	2.73±0.18	39.5±1.8	23.7±1.1	0.314±0.017	864±20	2.53±0.08	0.243±0.008	
NCS ZC71017	Agricultural Soils	1.40±0.07	0.157±0.014	1.26±0.12	1.79±0.12	69.8±2.9	25.1±1.3	0.57±0.04	498±18	2.49±0.12	0.170±0.006	
NCS ZC71018	Agricultural Soils	1.69±0.08	0.231±0.022	0.90±0.06	1.96±0.10	46±4	43.3±1.7	0.396±0.023	417±19	2.67±0.10	0.149±0.006	
NCS ZC71019	Agricultural Soils	2.09±0.10	0.085±0.010	0.70±0.05	2.86±0.12	32.7±1.9	21.6±1.3	0.340±0.023	0.297*±0.010*	7.3±0.3	693**±22**	
		Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	
NCS ZC71014	Agricultural Soils	10.9±0.6	26.1±1.3	23.9±0.9	0.105*±0.004*	23.2±1.2	7.0±0.3	85.6±1.7	238±37	0.69±0.04	9.4±0.5	
NCS ZC71015	Agricultural Soils	16.5±0.6	32.0±1.1	29.9±1.0	0.110*±0.004*	0.105*±0.004*	8.46±0.23	98.1±2.3	470±31	6.3±0.4	10.8±0.7	
NCS ZC71016	Agricultural Soils	13.1±0.9	33.3±1.3	22.8±1.4	0.339*±0.008*	50.9±1.2	8.9±0.4	85.1±1.4	644±65	0.84±0.04	9.7±0.6	
NCS ZC71017	Agricultural Soils	24.2±1.0	53±4	17.2±0.9	0.125*±0.007*	60±4	14.9±1.7	154±11	308±23	0.72±0.06	12.2±0.6	
NCS ZC71018	Agricultural Soils	18.9±0.9	33.3±2.2	90.6±2.6	607±14	166±11	9.3±1.2	99±5	281±16	7.8±0.7	11.5±0.5	
NCS ZC71019	Agricultural Soils	19.4±1.1	24.5±1.7	10.9±0.8	430±17	467±21	6.9±0.9	127±5	468±49	0.59±0.07	7.2±0.4	
		Se	Sm	Sn	Sr	Tb	Th	Tl	Tm	U	V	
NCS ZC71014	Agricultural Soils	0.259±0.016	4.92±0.19	2.63±0.19	262±7	0.667±0.025	8.1±0.5	0.558±0.013	0.337±0.011	1.46±0.08	66.4±1.4	
NCS ZC71015	Agricultural Soils	0.62±0.08	5.92±0.19	2.95±0.15	163±11	0.81±0.05	9.9±0.7	0.598±0.016	0.408±0.016	2.07±0.10	88±4	
NCS ZC71016	Agricultural Soils	0.495±0.029	5.78±0.19	2.3±0.4	304±9	0.710±0.023	7.52±0.27	0.699±0.018	0.321±0.018	1.93±0.13	76.1±2.0	
NCS ZC71017	Agricultural Soils	0.45±0.04	9.4±0.5	9.1±0.6	80±4	1.22±0.09	36.7±1.5	1.25±0.06	0.54±0.05	10.1±0.5	100±5	
NCS ZC71018	Agricultural Soils	1.19±0.08	5.88±0.28	5.6±0.4	79±5	0.76±0.05	15.7±0.7	0.83±0.05	0.394±0.027	4.27±0.18	96±5	
NCS ZC71019	Agricultural Soils	2.02±0.21	4.5±0.4	20.3±1.5	74±4	0.60±0.08	13.9±0.7	1.06±0.05	0.326±0.022	3.14±0.17	55±3	
		W	Y	Yb	Zn	Zr	F (water soluble)	SiO ₂ (%)	Al ₂ O ₃ (%)	TFe ₂ O ₃ (%)	MgO (%)	
NCS ZC71014	Agricultural Soils	1.39±0.12	20.4±1.1	2.17±0.09	64.4±2.0	246±10	7.2±1.0	67.41±0.26	11.77±0.10	3.68±0.07	1.85±0.08	
NCS ZC71015	Agricultural Soils	3.25±0.14	23.9±1.3	2.61±0.08	269±8	296±13	8.7±1.0	67.4±0.4	11.94±0.11	6.37±0.15	1.53±0.07	
NCS ZC71016	Agricultural Soils	2.57±0.12	20.1±0.8	2.05±0.07	302±9	247±14	3.3±0.7	59.7±0.4	12.57±0.26	4.78±0.12	3.76±0.13	
NCS ZC71017	Agricultural Soils	3.92±0.22	34.5±2.1	3.6±0.6	133±8	304±18	5.1±0.7	61.8±0.4	18.52±0.15	4.74±0.11	0.609±0.027	
NCS ZC71018	Agricultural Soils	6.7±0.5	22.4±1.9	2.5±0.5	261±12	276±15	2.2±0.5	69.52±0.26	12.34±0.14	5.98±0.14	1.34±0.04	
NCS ZC71019	Agricultural Soils	8.7±0.8	17.8±1.3	2.2±0.4	224±12	287±20	3.9±0.5	72.28±0.24	10.52±0.13	6.54±0.20	0.697±0.022	
		CaO (%)	Na ₂ O (%)	K ₂ O (%)	TC (%)	Corg (%)	Ti (%)					
NCS ZC71014	Agricultural Soils	3.65±0.10	2.17±0.07	2.39±0.10	1.56±0.11	1.04±0.04	0.330±0.012					
NCS ZC71015	Agricultural Soils	1.22±0.06	1.52±0.07	3.17±0.07	1.23±0.06	1.18±0.05	0.495±0.015					
NCS ZC71016	Agricultural Soils	3.73±0.10	2.21±0.09	2.74±0.09	2.66±0.10	2.23±0.10	0.397±0.018					
NCS ZC71017	Agricultural Soils	0.376±0.019	0.605±0.028	2.65±0.06	1.61±0.05	0.91±0.04	0.536±0.022					
NCS ZC71018	Agricultural Soils	0.414±0.023	0.470±0.017	1.79±0.06	1.44±0.05	0.79±0.04	0.492±0.026					
NCS ZC71019	Agricultural Soils	1.51±0.05	0.428±0.014	2.46±0.07	0.84±0.04	0.468±0.024	0.306±0.013					

Section 10 Environmental

Number	Name	Chemical Composition(ug/g)										Unit Size (in g)
		Ag	As	B	Ba	Be	Bi	Br	Cd	Ce		
NCS ZC71020	Agricultural Soils	0.093±0.008	14.9±0.8	63±7	184±7	3.40±0.18	0.483±0.025	4.6±0.3	0.57±0.03	116±8	50	
NCS ZC71021	Agricultural Soils	0.155±0.024	83±6	106±8	531±20	2.57±0.17	0.611±0.028	4.2±0.4	1.47±0.06	98±5	50	
NCS ZC71022	Agricultural Soils	0.16±0.02	55.7±2.4	77±6	471±20	3.83±0.25	0.85±0.04	4.0±0.5	12.1±0.4	107±6	50	
NCS ZC71023	Agricultural Soils	0.094±0.005	4.45±0.28	23.3±1.1	733±18	1.78±0.06	0.173±0.007	2.86±0.13	0.130±0.007	59.3±2.9	50	
NCS ZC71024	Agricultural Soils	1.07±0.07	30.0±0.6	44.6±1.8	783±22	2.11±0.12	2.38±0.08	9.0±0.4	26.2±0.9	77.8±2.4	50	
NCS ZC71025	Agricultural Soils	0.399±0.022	9.88±0.28	34.9±2.0	765±17	2.09±0.08	1.06±0.04	5.5±0.4	1.99±0.07	71.7±2.1	50	
		Cl	Co	Cr	Cu	Dy	Er	Eu	F	Ga	Gd	
NCS ZC71020	Agricultural Soils	51±7	32.8±1.2	152±6	98±5	8.8±0.7	4.6±0.4	2.80±0.20	878±62	23.1±1.1	9.7±0.7	
NCS ZC71021	Agricultural Soils	52±7	19.9±0.9	86.1±2.7	32.6±2.0	5.4±0.5	3.22±0.25	1.25±0.10	960±76	19.3±0.7	5.4±0.4	
NCS ZC71022	Agricultural Soils	42±8	23.9±1.0	106±4	52.2±2.6	7.6±0.6	4.23±0.27	1.87±0.13	883±56	25.8±1.0	8.0±0.6	
NCS ZC71023	Agricultural Soils	104±6	13.8±0.6	82.8±2.2	25.2±1.6	3.48±0.14	1.97±0.10	1.24±0.05	485±25	16.9±0.7	4.11±0.22	
NCS ZC71024	Agricultural Soils	410±32	13.4±0.4	61±4	63.1±1.9	4.42±0.12	2.57±0.08	1.32±0.06	503±16	16.6±0.7	5.11±0.22	
NCS ZC71025	Agricultural Soils	140±12	16.3±0.4	95.2±2.3	54.2±2.0	4.33±0.14	2.44±0.06	1.40±0.04	521±18	18.0±0.8	5.01±0.10	
		Ge	Hg	Ho	I	La	Li	Lu	Mn	Mo	N (%)	
NCS ZC71020	Agricultural Soils	1.59±0.12	0.249±0.019	1.72±0.16	1.85±0.12	60±4	56±4	0.61±0.06	560±23	3.62±0.28	0.268±0.009	
NCS ZC71021	Agricultural Soils	1.62±0.08	12.2±1.0	1.13±0.09	1.96±0.11	45±4	52.1±2.7	0.51±0.05	0.120*±0.005*	2.37±0.19	0.211±0.004	
NCS ZC71022	Agricultural Soils	1.89±0.13	0.395±0.020	1.53±0.12	4.85±0.18	55.6±2.5	67±4	0.64±0.06	0.675*±0.021*	2.87±0.27	0.158±0.005	
NCS ZC71023	Agricultural Soils	1.21±0.14	0.029±0.004	0.692±0.028	1.63±0.10	31.1±1.4	21.8±1.3	0.305±0.014	594±16	0.69±0.04	623**±29**	
NCS ZC71024	Agricultural Soils	1.54±0.06	4.64±0.27	0.88±0.04	2.54±0.11	41.5±1.3	35.1±1.7	0.404±0.017	820±21	14.1±0.7	0.129±0.004	
NCS ZC71025	Agricultural Soils	1.27±0.06	0.309±0.018	0.86±0.04	2.59±0.13	38.2±1.9	31.9±1.0	0.364±0.022	848±16	1.35±0.07	0.170±0.007	
		Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	
NCS ZC71020	Agricultural Soils	52±8	57±4	77.7±2.1	0.141*±0.005*	26.3±2.0	14.3±1.0	55±4	0.117*±0.011*	1.36±0.12	22.2±0.7	
NCS ZC71021	Agricultural Soils	19.7±1.2	34.8±2.7	38.1±1.6	0.106*±0.005*	248±8	9.5±0.7	131±8	437±24	6.3±0.5	13.4±0.7	
NCS ZC71022	Agricultural Soils	21.3±1.6	48±4	56.1±2.6	704±15	215±7	12.8±0.9	147±7	327±16	2.29±0.15	17.8±1.2	
NCS ZC71023	Agricultural Soils	11.8±0.4	27.8±1.1	29.9±0.9	811±20	19.7±0.8	7.33±0.20	87.1±2.1	160±25	0.41±0.04	10.8±0.4	
NCS ZC71024	Agricultural Soils	14.3±0.5	34.3±1.1	26.8±0.8	613±18	182±5	9.66±0.26	99±4	677±25	2.87±0.14	9.8±0.5	
NCS ZC71025	Agricultural Soils	13.8±0.7	33.4±1.2	38.3±1.4	0.152*±0.005*	53.9±1.6	8.85±0.27	97.7±2.6	379±28	1.95±0.06	11.9±0.5	
		Se	Sm	Sn	Sr	Tb	Th	Tl	Tm	U	V	
NCS ZC71020	Agricultural Soils	1.42±0.11	11.1±0.8	3.60±0.20	96±4	1.58±0.11	11.5±0.5	0.43±0.04	0.68±0.07	6.1±0.3	289±14	
NCS ZC71021	Agricultural Soils	0.659±0.029	6.4±0.5	3.94±0.24	80.3±2.8	0.92±0.08	18.5±0.9	1.42±0.08	0.51±0.04	4.74±0.20	112±6	
NCS ZC71022	Agricultural Soils	0.598±0.026	9.3±0.7	4.62±0.26	42.2±1.7	1.31±0.09	19.7±0.9	1.15±0.09	0.66±0.06	5.91±0.28	175±7	
NCS ZC71023	Agricultural Soils	0.143±0.020	5.06±0.13	2.22±0.10	343±8	0.632±0.026	8.0±0.5	0.528±0.020	0.306±0.015	1.49±0.06	81.4±2.3	
NCS ZC71024	Agricultural Soils	0.75±0.04	6.06±0.15	4.53±0.28	196±4	0.79±0.04	11.4±0.5	0.865±0.019	0.395±0.016	2.26±0.06	79±4	
NCS ZC71025	Agricultural Soils	0.451±0.022	6.03±0.15	5.22±0.16	267±6	0.781±0.019	9.8±0.5	0.625±0.019	0.367±0.017	2.06±0.11	91±4	
		W	Y	Yb	Zn	Zr	F(water soluble)	SiO ₂ (%)	Al ₂ O ₃ (%)	TFe ₂ O ₃ (%)	MgO (%)	
NCS ZC71020	Agricultural Soils	1.51±0.12	45.2±2.9	4.2±0.4	185±4	369±20	2.29±0.25	53.61±0.4	14.34±0.23	12.09±0.23	0.906±0.016	
NCS ZC71021	Agricultural Soils	2.37±0.17	29.3±1.8	3.26±0.26	201±6	278±12	2.3±0.4	63.8±0.4	14.26±0.25	6.59±0.16	1.12±0.04	
NCS ZC71022	Agricultural Soils	2.87±0.17	40.8±2.5	4.2±0.4	941±34	277±16	1.91±0.29	55.9±0.4	17.68±0.28	9.77±0.10	1.09±0.04	
NCS ZC71023	Agricultural Soils	1.02±0.07	18.0±0.5	1.93±0.06	62.7±1.9	278±10	6.1±0.9	66.9±0.4	14.08±0.18	4.81±0.08	1.54±0.03	
NCS ZC71024	Agricultural Soils	3.28±0.20	23.3±0.6	2.54±0.11	0.100*±0.003*	335±6	10.9±1.6	66.9±0.5	13.26±0.04	4.42±0.08	1.29±0.04	
NCS ZC71025	Agricultural Soils	2.06±0.12	22.7±0.7	2.36±0.09	159±5	219±3	6.2±0.5	63.1±0.4	14.15±0.08	5.37±0.10	1.76±0.04	
		CaO (%)	Na ₂ O (%)	K ₂ O (%)	TC (%)	Corg (%)	Ti (%)					
NCS ZC71020	Agricultural Soils	0.541±0.016	0.187±0.010	1.61±0.06	3.85±0.13	2.10±0.08	1.78±0.05					
NCS ZC71021	Agricultural Soils	0.377±0.017	0.168±0.012	3.25±0.09	2.02±0.11	1.12±0.04	0.570±0.011					
NCS ZC71022	Agricultural Soils	0.483±0.021	0.146±0.016	2.25±0.06	1.37±0.06	0.710±0.022	0.618±0.015					
NCS ZC71023	Agricultural Soils	2.15±0.04	3.216±0.010	2.57±0.04	0.66±0.04	0.368±0.017	0.372±0.010					
NCS ZC71024	Agricultural Soils	1.67±0.05	1.99±0.05	2.66±0.07	1.60±0.07	0.84±0.04	0.431±0.008					
NCS ZC71025	Agricultural Soils	1.98±0.04	2.47±0.08	2.45±0.07	1.81±0.05	0.995±0.027	0.435±0.007					

Section 10 Environmental

Number	Name	Chemical Composition									Unit Size (in g)
		Ag(10 ⁻⁶)	Al(10 ⁻²)	As(10 ⁻⁶)	B(10 ⁻⁶)	Ba(10 ⁻⁶)	Be(10 ⁻⁹)	Bi(10 ⁻⁹)			
NCS ZC 73033	Scallion	(0.014)	(0.3)	0.52±0.11	25±2	36±5	59±11	(13)			35
NCS ZC 73034	Prawn	(0.017)	(0.029)	(2.5)	2.0±0.3	2.3±0.3	4.9±0.8	(5.4)			12
NCS ZC 73035	Pork liver		(0.012)	1.4±0.3	(0.6)	(0.24)	0.9±0.3	(0.9)			25
		Br(10 ⁻⁶)	Ca(10 ⁻²)	Cd(10 ⁻⁶)	Ce(10 ⁻⁶)	Cl(10 ⁻²)	Co(10 ⁻⁶)	Cr(10 ⁻⁶)	Cs(10 ⁻⁶)	Cu(10 ⁻⁶)	
NCS ZC 73033	Scallion	20±2	2.28±0.09	0.19±0.02	2.1±0.3	(0.85)	0.59±0.04	2.6±0.4	0.19±0.02	5.5±0.3	
NCS ZC 73034	Prawn	8.5±1.1	0.30±0.01	0.039±0.002	0.13±0.03	(0.189)	0.044±0.005	0.35±0.11	0.027±0.002	10.3±0.7	
NCS ZC 73035	Pork liver	(2.8)	(0.023)	1.00±0.07	(0.005)	(0.17)	0.057±0.004	0.23±0.06	0.070±0.007	52±3	
		Dy(10 ⁻⁹)	Er(10 ⁻⁹)	Eu(10 ⁻⁹)	Fe(10 ⁻⁶)	Gd(10 ⁻⁹)	Ge(10 ⁻⁹)	Hg(10 ⁻⁹)	Ho(10 ⁻⁹)	I(10 ⁻⁶)	
NCS ZC 73033	Scallion	119±12	57±12	39±4	1010±55	155±34	(32)	12.0±2.3	22±4	(0.44)	
NCS ZC 73034	Prawn	7.9±0.5	4.4±0.4	2.5±0.3	112±12	10.5±1.2	6.0±1.4	49±8	1.5±0.2	(0.43)	
NCS ZC 73035	Pork liver	(0.3)	(0.2)	(0.2)	519±34	(0.6)	(12)	45±8	(0.14)	(0.18)	
		K(10 ⁻²)	La(10 ⁻⁶)	Li(10 ⁻⁶)	Lu(10 ⁻⁹)	Mg(10 ⁻²)	Mn(10 ⁻⁶)	Mo(10 ⁻⁶)	N(10 ⁻²)	Na(10 ⁻²)	
NCS ZC 73033	Scallion	2.1±0.1	1.16±0.10	1.6±0.2	(8)	0.27±0.01	173±7	0.12±0.03	(2.9)	(0.03)	
NCS ZC 73034	Prawn	0.49±0.01	0.066±0.005	0.15±0.01	0.64±0.21	0.169±0.006	8.9±0.3	0.037±0.012	(13.5)	0.31±0.02	
NCS ZC 73035	Pork liver	0.66±0.03	(0.004)	(0.02)		0.063±0.004	10.1±0.4	4.2±0.2	(11.2)	0.163±0.010	
		Nb(10 ⁻⁹)	Nd(10 ⁻⁶)	Ni(10 ⁻⁶)	P(10 ⁻²)	Pb(10 ⁻⁶)	Pr(10 ⁻⁹)	Rb(10 ⁻⁶)	S(10 ⁻²)	Sb(10 ⁻⁹)	
NCS ZC 73033	Scallion	(215)	0.91±0.11	(1.9)	0.36±0.02	1.34±0.16	235±29	9.4±0.8	0.46±0.04	(45)	
NCS ZC 73034	Prawn	16.5±4.0	0.056±0.006	(0.23)	0.77±0.03	0.20±0.05	14.5±1.1	1.4±0.1	(1)	(16)	
NCS ZC 73035	Pork liver		(0.003)	(0.1)	1.14±0.06	0.12±0.03	(0.6)	27±2	0.80±0.12	(12)	
		Sc(10 ⁻⁶)	Se(10 ⁻⁶)	Si(10 ⁻²)	Sm(10 ⁻⁹)	Sn(10 ⁻⁶)	Sr(10 ⁻⁶)	Tb(10 ⁻⁹)	Th(10 ⁻⁶)	Ti(10 ⁻⁶)	
NCS ZC 73033	Scallion	(0.26)	0.069±0.009	(1.1)	167±18	(0.07)	74±5	22±5	364±58	(62)	
NCS ZC 73034	Prawn	(0.02)	(5.1)	(0.048)	10.7±1.8	(0.024)	20±2	1.5±0.2	28±8	(17)	
NCS ZC 73035	Pork liver	(0.012)	1.54±0.29		(0.5)		0.51±0.04	(0.25)	(4.5)		
		Tl(10 ⁻⁹)	Tm(10 ⁻⁹)	U(10 ⁻⁹)	V(10 ⁻⁶)	Y(10 ⁻⁶)	Yb(10 ⁻⁹)	Zn(10 ⁻⁶)		Ash(%)	
NCS ZC 73033	Scallion	37±8	7.8±1.5	(50)	(3)	0.61±0.14	57±17	25±1			
NCS ZC 73034	Prawn	2.0±0.5	0.69±0.18	9.7±0.8	0.24±0.07	0.09±0.02	4.1±0.8	76±4			
NCS ZC 73035	Pork liver	1.2±0.2		3.2±0.9	(0.078)	(0.04)	(0.17)	211±11			
Number	Name	Composition (mg/kg)									Unit Size (in g)
		Cr	As	Cd	Hg	Pb	Cu	Ni	Se		
NCS ZC11016	Wheat	0.07	0.04	0.63	0.003#	0.24	5.5	0.48	0.04		35
NCS ZC11017	Wheat	0.22	0.05	0.09	0.003#	0.13	4.4	(0.15)	0.2		35
NCS ZC11018	Wheat	(0.06)	0.03	0.36	(0.003)	0.16	4.8	0.25	0.06		35
NCS ZC11019	Wheat	(0.03)	0.04	0.1	(0.002)	0.07	4.5	(0.17)	0.07		35
NCS ZC11020	Corn	(0.05)		0.28	0.004#	0.19	2.4	0.65	0.04		35
NCS ZC11021	Corn	0.07	0.04	0.11	0.003#	0.18	1.8	(0.18)	0.04		35
		K	Na	Ca	Mg	Fe	Zn	Mn	Al		
NCS ZC11016	Wheat	0.34	0.0033	0.044	0.13	0.0049	0.0073	0.004			
NCS ZC11017	Wheat	0.41	0.0028	0.046	0.14	0.0061	0.0037	0.0034			
NCS ZC11018	Wheat	0.43	0.0022	0.036	0.11	0.0052	0.0043	0.0025	0.023		
NCS ZC11019	Wheat	0.47	0.0019	0.042	0.14	0.0037	0.003	0.0029	0.013		
NCS ZC11020	Corn	0.38	0.0007	0.0057	0.11	0.0025	0.0043	0.0003			
NCS ZC11021	Corn	0.45	0.0007	0.0088	0.11	0.0024	0.0021	0.0005			

Section 10 Environmental

Number	Name	Chemical Composition($\mu\text{g/g}$)						Unit Size (in g)						
		Cr	TAs	Cd	Hg	Pb	As inorganic							
NCS ZC 11001	Rice	0.064	0.23	0.24	0.005	0.12	0.18	35						
NCS ZC 11002	Rice	0.056	0.25	0.41	0.0041	0.15	0.19	35						
NCS ZC 11003	Rice	0.046	0.16	0.32	0.0043	0.071	(0.13)	35						
NCS ZC 11004	Rice	0.043	0.15	0.42	0.0036	0.11	0.12	35						
NCS ZC 11005	Rice	0.040	0.19	0.87	0.0033	0.056	0.15	35						
NCS ZC 11006	Rice	0.050	0.18	0.48	0.004	0.042	0.14	35						
NCS ZC 11007	Rice	0.06	0.11	1.28	0.0037	0.10	(0.084)	35						
NCS ZC 11008	Rice	0.045	0.11	0.99	0.0037	0.071	0.08	35						
NCS ZC 11009	Rice	0.05	0.106	1.72	0.004	0.25	0.078	35						
NCS ZC 11010	Rice	0.063	0.105	2.16	0.0038	0.11	0.081	35						
NCS ZC 11011	Rice	0.053	0.16	0.62	0.0038	0.064	0.13	35						
NCS ZC 11012	Rice	0.034	0.15	0.030	0.0040	0.062	0.13	35						
NCS ZC 11013	Rice	0.052	0.12	0.22	0.003	0.049	(0.082)	35						
NCS ZC 11014	Rice	0.050	0.12	0.11	0.0027	0.037	0.089	35						
NCS ZC 11015	Rice	0.05	0.061	0.007	(0.0017)	0.11	0.046	35						
Number	Name	Chemical Composition($\mu\text{g/g}$)			Unit Size (in g)									
		Pb	Cd	Cr										
NCS ZC 76024	Pb, Cd, Cr in wheat powder	1.63	0.074	0.095	30									
NCS ZC 76025	Pb, Cd, Cr in wheat powder	0.810	0.015	0.105	30									
Number	Name	Chemical Composition($\mu\text{g/g}$)		Unit Size (in g)										
		Pb	As											
NCS ZC 83005	Pb, As in Cosmetic	37.2	9.0	10										
Number	Name	Chemical Composition(mg/mL)			Unit Size (in mL)									
NCS ZC 76011	Amaranth			0.50	5									
NCS ZC 76012	Ponceau 4R			0.50	5									
NCS ZC 76013	Tartra Zine			0.50	5									
NCS ZC 76014	Brilliant Blue			0.50	5									
NCS ZC 76015	Sunset Yellow			0.50	5									
Number	Name	Chemical Composition($\mu\text{g/g}$)												Unit Size (in g)
		Zn	Se	Cr	Mg	Mn	As	Ca	Fe	Cu	Sr	Hg	Na	
NCS ZC 81002b	Human Hair	191	0.59	8.74	248	3.83	0.198	1537	160	33.6	8.17	1.06	445	7
		Pb	Ni	Cd	Al	Co	Mo	Sc*	Br	Sb	K	Ag	Ba	
NCS ZC 81002b	Human Hair	3.83	5.77	0.072	23.2	0.153	1.06		(0.59)	0.12	(14.4)	0.037	11.1	
		P	I	V	Cl	La	S***	Ti						
NCS ZC 81002b	Human Hair	174	0.96	(0.089)	(48.2)	(0.029)	(4.62)	(2.10)						

* Unit of Certified Value of the element is $\mu\text{g/kg}$
** Unit of Certified Value of the element is weight percent

Number	Name	Range Concentration(mg/L)			Unit Size (in mL)
NCS ZC 85301	COD			70~200	20
NCS ZC 85302	COD			50~150	20
NCS ZC 85303	Phenol			0.01~1.5	20

Number	Name	Chemical Composition(Percent)									Unit Size (in g)
		Pb	Cd	Ni	Cr*	Co	Cu	Sb	As	Hg	
NCS ZC 93018	Metals in leather	94	86.6	95.5	56.3	91.4	97.1	89.6	90.7	93.5	2

Section 11 Set-up Sample

1) Iron, Steel & Alloy (Disk)

Number	Name	Chemical Composition(Percent)														Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	V	W	Mo	Co	Ti		
NCS AH 11351c	Pure iron	0.0017	0.0051	0.124	0.0079	0.0064	0.016	0.003	0.0071			0.0011		0.068	Φ38×40	
NCS AH 11353	Cast iron	3.15	2.3	0.47	0.02	0.0006	0.025	0.59	0.029	0.032	0.003	0.002	0.015	0.027	Φ30×25	
NCS AH 11351c	Pure iron								(0.001)	0.03						
NCS AH 11353	Cast iron		0.0037						0.003	0.023	0.004	0.029				
Number	Name	Chemical Composition(Percent)														Unit Size (mm)
C	Si	Mn	P	S	Cr	Ni	Cu	Al	V							
NCS AH 11354a	R _E -Mg Cast Iron	2.25	2.66	1.17	0.375	0.095	0.493	0.623	1.65	0.072	0.518					Φ31×24
NCS AH 11355a	R _E -Mg Cast Iron	4.07	1.45	0.22	0.054	0.041	2.12	1.46	0.266	0.073	0.09					Φ31×24
NCS AH 11356a	R _E -Mg Cast Iron	3.78	2.47	0.618	0.084	0.021	0.175	0.522	0.68	0.079	0.265					Φ31×24
NCS AH 11354a	R _E -Mg Cast Iron	0.046	0.055	0.0056	0.184	0.253	0.434	0.117	0.094	0.0013	0.0033					
NCS AH 11355a	R _E -Mg Cast Iron	0.146	0.013	0.0024	0.042	0.724	0.039	0.022	0.027	0.0003	0.0006					
NCS AH 11356a	R _E -Mg Cast Iron	0.076	0.041	0.054	0.085	0.344	0.105	0.037	0.032	0.02	0.045					
Number	Name	Chemical Composition(Percent)														Unit Size (mm)
C	Si	Mn	P	S	Cr	Ni	Cu	V	Ti	Mo	Al	Co				
NCS AH 11357	Alloy Structure Steel	0.147	0.369	1.11	0.019	0.015	0.0091	0.0053	0.016							Φ38×40
NCS AH 11358	Alloy Structure Steel	0.402	0.226	0.690	0.011	0.0083	0.95	0.015	0.015	0.0045					Φ36×40	
NCS AH 11358c	Alloy Steel	0.39	0.243	0.583	0.02	0.0061	0.848	0.014	0.011					Φ37×40		
NCS AH 11359	Alloy Structure Steel	0.225	0.220	0.616	0.013	0.0081	0.815	0.012	0.0081	0.0046	0.0032					
NCS AH 11359b	Alloy Steel	0.212	0.22	0.59	0.0074	0.013	0.803	0.011	0.0094	0.0034						
NCS AH 11359c	Alloy Steel	0.212	0.247	0.579	0.017	0.0078	0.782	0.042	0.016							
NCS AH 11360	Stainless Steel	0.058	0.854	1.49	0.027	0.010	17.39	11.91	0.168	0.043	0.366	2.33	0.046	0.105	Φ36×30	
NCS AH 11363	Alloy tool Steel	0.482	0.63	0.158	0.021	0.0086	1.15	0.078	0.094			0.026				
NCS AH 11359b	Alloy Steel			0.0024												
NCS AH 11360	Stainless Steel	0.060														
NCS AH 11363	Alloy tool Steel	2.16														
Number	Name	Chemical Composition(Percent)														Unit Size (mm)
C	Si	Mn	P	S	Ni	Cr	Cu	V	Ca	Als	Alt	Sn				
NCS AH 11364	Carbon Steel	0.057	0.026	0.121	0.010	0.0032	0.010	0.016	0.0087	0.0010	0.0019	0.032	0.034	0.0097	Φ38×40	
NCS AH 11365	line pipe steel	0.054	0.266	1.53	0.011	0.0052	0.05	0.013	0.010	0.014	0.0015	0.019	0.021	0.017	Φ38×40	
NCS AH 11366	stainless steel 2Cr13	0.176	0.388	0.501	0.024	0.0036	0.115	12.29	0.074	0.024					Φ37×30	
NCS AH 11367	stainless steel 316L	0.017	0.476	0.847	0.034	0.0008	10.23	16.65	1.09	0.066			(0.007)	0.032	Φ38×30	
NCS AH 11368	stainless steel 304	0.066	0.76	1.16	0.030	0.0091	8.23	17.49	0.355	0.061			0.014	0.012	Φ38×30	
NCS AH 11369	stainless steel 304L	0.026	0.522	0.857	0.033	0.0020	8.11	18.18	0.445	0.068			(0.004)	0.013	Φ38×30	
NCS AH 11370	stainless steel 321(0Cr18Ni10Ti)	0.046	0.609	1.18	0.027	0.016	11.65	17.57	0.199	0.075			0.053	0.011	Φ33×30	
NCS AH 11371	stainless steel(9Cr18)	0.95	0.487	0.315	0.027	0.003	0.171	17.70	0.064	0.022			0.014	0.0063	Φ33×30	
NCS AH 11372	stainless steel 630(0Cr17Ni4CuNb)	0.037	0.552	0.604	0.041	0.0056	4.12	15.73	3.46	0.067			(0.004)	0.019	Φ38×30	
NCS AH 11373	stainless steel(CrMnN)	0.160	0.484	5.56	0.040	0.035	5.21	13.72	0.520	0.046						
NCS AH 11374	stainless steel(CrMnN)	0.085	0.458	11.03	0.032	0.014	0.68	13.79	1.16	0.056						
NCS AH 11375	high speed tool steel(W6Mo5Cr4V2)	0.84	0.305	0.328	0.028	0.015	0.090	3.89	0.103	1.83						
NCS AH 11376	high speed tool steel(W18Cr4V)	0.72	0.300	0.227	0.027	0.026	0.074	4.09	0.107	1.12			(0.005)	0.028	Φ33×30	
NCS AH 11377	Cast iron	2.13	4.03	0.722	0.47	0.027	0.144	0.136	0.344	0.062						

Section 11 Set-up Sample

1) Iron, Steel & Alloy (Disk)

		As	N	W	Co	MO	Nb	Ti	La	Ce	Mg	Sb				
NCS AH 11364	Carbon Steel	0.0051	0.010			0.209	0.039	0.015								
NCS AH 11365	line pipe steel	0.012	0.0085		0.032	0.013										
NCS AH 11366	stainless steel 2Cr13			0.045	0.144	2.08	0.012									
NCS AH 11367	stainless steel 316L			0.021	0.099	0.205	0.011	(0.0007)								
NCS AH 11368	stainless steel 304			0.015	0.152	0.119	0.0052	0.006								
NCS AH 11369	stainless steel 304L			0.036	0.057	0.438	0.0039	(0.002)								
NCS AH 11370	stainless steel 321(0Cr18Ni10Ti)			0.037	0.018	0.014		0.325								
NCS AH 11371	stainless steel(9Cr18)			0.054	0.067	0.191	0.287									
NCS AH 11372	stainless steel 630(0Cr17Ni4CuNb)			0.050	0.079	0.255	0.007									
NCS AH 11373	stainless steel(CrMnN)	0.077	(0.003)	0.063	0.013	(0.002)										
NCS AH 11374	stainless steel(CrMnN)	0.136	5.93	0.017	5.08											
NCS AH 11375	high speed tool steel(W6Mo5Cr4V2)		17.45	0.019	0.076		(0.003)									
NCS AH 11376	high speed tool steel(W18Cr4V)				0.063		0.056	0.011	0.019	0.049	0.039					
Number		Chemical Composition(Percent)														Unit Size (mm)
Name		C	Si	Mn	P	S	Cr	Ni	Cu	V	Mo	Ti	Nb	Al		
NCS AH 11386	High Chromium Cast Iron	2.96	0.87	1.18	0.047	0.053	13.57	0.559	0.546	0.175	0.346	0.02	0.025		Φ30×24	
NCS AH 11387	High Chromium Cast Iron	2.33	1.13	0.614	0.102	0.1	5.43	0.373	0.979	0.454	0.212	0.053	0.032	0.136	Φ30×24	
NCS AH11394	Stainless Steel	0.116	0.417	0.392	0.024	0.029	12.11	0.124	0.126	0.031	0.059				Φ37×35	
NCS AH11395	Alloy Steel	0.0025	0.0047	1.16	0.075	0.0038	0.02	0.005	0.015			0.021	0.019		Φ37×40	
NCS AH11396	Carbon Steel	0.307	0.249	0.571	0.015	0.052	0.175	0.138	0.02	0.0019		0.012			Φ37×40	
		As	Co	Als	Alt	N	Ca									
NCS AH11394	Stainless Steel		0.026			0.013										
NCS AH11395	Alloy Steel			0.038	0.039											
NCS AH11396	Carbon Steel	0.011	0.021	0.019	0.021		0.0022									
Number		Chemical Composition(Percent)														Unit Size (mm)
Name		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Co	Alt	As		
NCS AH11399	Alloy Structure Steel	0.279	0.253	0.558	0.0088	0.0019	0.938	0.033	0.058	0.166	0.0053	0.0082	0.029	0.0058	D38×40	
NCS AH11400	Spring Steel	0.665	0.257	0.909	0.016	0.016	0.073	0.038	0.099	0.018	0.0013	0.01		0.0063	D37×40	
		Sn														
NCS AH11399	Alloy Structure Steel	0.004														
NCS AH11400	Spring Steel	0.0047														
Number		Chemical Composition(Percent)											Unit Size (mm)			
Name		C	Si	Mn	P	S	Ni	Cr	Cu	Mo						
NCS AH 18305	Carbon Steel	0.094	0.229	0.55	0.015	0.018							Φ37×30			
NCS AH 18306	Carbon Steel	0.196	0.223	0.465	0.014	0.012							Φ37×30			
NCS AH 18307	Carbon Steel	0.455	0.22	0.582	0.021	0.01							Φ37×30			
NCS AH 18310	Carbon Steel	0.689	0.279	0.581	0.008	0.015							Φ37×30			
Number		Chemical Composition(Percent)												Unit Size (mm)		
Name		C	S	Mn	P	Si	Cr	Ni	Mo	Cu	V	Al	B			
NCS AH 20304	60SiMnA	0.588	0.012	0.699	0.015	1.72	0.258	0.042		0.102		0.010		Φ42×40		
NCS AH 20305	50CrVA	0.497	0.018	0.629	0.011	0.253	0.944	0.062		0.122	0.143	0.020		Φ42×40		
NCS AH 20306	35CrMo	0.376	0.018	0.534	0.026	0.283	1.00	0.110	0.197	0.096		0.037		Φ42×40		
NCS AH 20307	12CrMoV	0.109	0.014	0.527	0.011	0.247	1.04	0.064		0.095	0.203	0.032		Φ42×40		
NCS AH 20308	20MnVB	0.208	0.011	1.36	0.012	0.256	0.044	0.041		0.085	0.101	0.038	0.0023	Φ42×40		
NCS AH 20309	40Cr	0.406	0.020	0.629	0.019	0.302	1.01	0.068		0.105		0.030		Φ42×40		
NCS AH 20310	42CrMo	0.407	0.018	0.628	0.017	0.243	0.953	0.057	0.163	0.096		0.022		Φ42×40		

Section 11 Set-up Sample

1) Iron, Steel & Alloy (Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Mo	Cu	V	Ti	Al	Ni	Nb	
NCSAH 20311	Steel	0.0058	0.0049	0.031	0.0069	0.0064	0.015	(0.0004)	0.006	0.00014	0.00013	0.01	0.0047	(<0.0015)	Φ35×40
NCSAH 20312	Steel	0.011	0.179	0.19	0.049	0.0034	27.77	0.0095	0.022	0.032		0.046	0.34	0.11	Φ35×40
NCSAH 20313	Steel			10.34			8.52			0.44	0.91	0.83	6.51		Φ35×40
NCSAH 20314	Steel	0.262	2.65	2.27	0.007	0.041	0.973	2.9	0.396		0.019		25.14		Φ35×40
		B	W	N	Pb	Bi	Sb	As	Sn	Ca	Ce				
NCSAH 20311	Steel	<0.001	(<0.001)	0.0039	(<0.00015)	(<0.0001)	0.0002	0.0006	0.0005	(<0.0003)					
NCSAH 20312	Steel	0.0083	0.25		0.0042		0.008	0.0031	0.0019						
NCSAH 20313	Steel			0.044				0.007	0.018	(<0.0015)					
NCSAH 20314	Steel	0.001	0.028												
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Mo	Cu	V	Ti	Al	Ni	Nb	
NCSAH 20315	Carbon Steel	0.015	0.632	1.91	0.0037	0.057	0.099	0.564	0.384	0.57	0.026	0.013	0.55	0.099	Φ35×40
NCSAH 20316	Carbon Steel	0.92	0.091	0.075	0.047	0.0016	1.29	0.016	0.04	0.0016	0.55	0.102	0.062	0.0006	Φ35×40
		B	W	Bi	Pb	Zn	Sb	As	Sn	Ca					
NCSAH 20315	Carbon Steel	0.0009	0.076	(<0.0005)	(<0.0006)	(<0.004)	0.0005	0.011	0.0018	(<0.001)					
NCSAH 20316	Carbon Steel	0.009	0.0019	0.0004	0.003	0.0017	0.0043	0.0035	0.012	(<0.001)					
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Ni	Cr	Mo	V	Cu	Al	B*	Ti*	
NCSAH 20317	SL9N590	0.072	0.30	1.13	0.006	0.021	8.84	0.21	0.056		0.048	0.026			Φ40×45
NCSAH 20318	20Mn23AlV	0.220	0.31	23.92	0.016	0.0056	0.02	0.054		0.124	0.016	2.57			Φ40×45
NCSAH20319	High phosphorus Steel	0.002	0.44	0.501	0.108	0.0021	0.0095	0.013	0.002	0.0003	0.0033	0.0006	0.0005	0.0002	Φ40×40
NCSAH20320	High Alloy steel	0.102	1.44	11.84	0.051	0.018	3.16	14.99	2.11	0.137	0.125	0.2			Φ38×36
		Co	Nb	As	Sn	N									
NCSAH20319	High phosphorus Steel	0.0016	0.0004	0.0029	0.0004										
NCSAH20320	High Alloy steel		0.361			0.175									
Number	Name	Chemical Composition(percent)													Unit Size (mm)
		C	S	Mn	P	Si	Cr	Ni	Mo	Cu	V	Sb	B		
NCSAH 21309	Middle Low Alloy	0.701	0.039	2.06	0.013	0.042	0.065	0.026	0.003	0.022	0.094	0.0034	0.0041		Φ40×40
NCSAH 21310	Stainless Steel	0.082	0.030	1.15	0.020	0.429	17.63	10.04	2.00	1.01	1.04				Φ40×40
NCSAH 21311	High Speed tool Steel	0.856	0.005	0.312	0.017	0.33	3.93	0.048	4.83	0.261	1.90				Φ40×40
NCSAH 21312	High Manganese Steel	0.297	0.117	16.24	0.033	0.48	0.69	0.43	0.506	0.208	0.23				Φ40×40
NCSAH 21313	High Speed tool Steel	0.75	0.002	0.16	0.017	0.282	4.20	0.041	0.10	0.137	0.17				Φ40×40
NCSAH 21314	Stainless steel	0.100	0.0022	19.56	0.0207	0.359	19.87	0.279	0.205	0.059					Φ40×40
NCSAH21315	High Alloy steel	0.029	0.056	6.92	0.012	0.3	23.86	8.98	3.26	0.6	0.38				Φ38×36
		Ti	Sn	Al	W	Co	As	Nb	Ta	Ca	Al	N	B*		
NCSAH 20309	Middle Low Alloy		0.017	0.107	0.193	0.010	0.017	0.313	0.098	0.0009					
NCSAH 20310	Stainless Steel	0.472		0.129	0.438	0.22		0.520							
NCSAH 20311	High Speed tool Steel	0.17		0.36	6.25	4.86									
NCSAH 20312	High Manganese Steel	0.045		2.98	0.35	0.032									
NCSAH 20313	High Speed tool Steel		0.045		17.99	0.010	0.027								
NCSAH 21314	Stainless steel					0.021				0.008	0.66	<0.0005			
NCSAH21315	High Alloy steel			0.01				0.056			0.075				

Section 11 Set-up Sample

1) Iron, Steel & Alloy (Disk)

Number	Name	Chemical Composition(Percent)														Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	V	Als	Alt	Cu	Co		
NCS AH 28302	Stainless steel	0.322	0.613	0.83	0.018	0.017	8.63	0.148	0.016	0.014	0.023	0.027	0.47	0.019	Φ40×35	
NCS AH 28303	Stainless steel	0.329	0.397	0.433	0.018	0.027	11.95	2.66	0.026	0.016	0.0019	0.0073	0.08	0.057	Φ40×35	
NCS AH 28304	Stainless steel	0.193	0.905	0.49	0.022	0.01	19.4	6.48	0.021	0.029	0.034	0.037	0.079	0.095	Φ40×35	
NCS AH 28305	Heat resisting alloy	0.392	2.41	0.508	0.019	0.022	10.09	0.247	1.09	0.015	0.0031	0.0057	0.093	0.019	Φ40×35	
NCS AH 28307	Heat resisting alloy	0.157	0.827	0.8	0.021	0.023	13.31	13.9	0.24	0.02	0.067	0.074	0.03	0.147	Φ40×35	
NCS AH 28308	Heat resisting alloy	0.182	0.865	0.37	0.019	0.025	17.3	1.33	0.023	0.021	0.0025	0.0061	0.074	0.051	Φ40×35	
NCS AH 28309	Heat resisting alloy	0.178	0.542	2.37	0.023	0.0084	22.71	16.2	0.0071	0.031	0.045	0.053	0.058	0.186	Φ40×35	
NCS AH 28310	Carbon steel	0.162	0.21	0.373	0.019	0.015	0.129	0.137	0.024	0.0011	0.0018	0.0029	0.091	0.0071	Φ40×35	
NCS AH 28311	Alloy steel	0.345	0.318	0.424	0.022	0.011	1.58	0.099	0.171	0.0034	0.807	0.824	0.116	0.0092	Φ40×35	
NCS AH 28312	Alloy steel	0.21	0.385	1.295	0.013	0.0208	0.169	0.099	0.015	0.011	0.054	0.061	0.101	0.0064	Φ40×35	
NCS AH 28313	Alloy steel	0.118	0.237	0.257	0.023	0.023	0.147	0.154	0.02	0.0023	0.101	0.106	0.354	0.0093	Φ40×35	
NCS AH 28314	Alloy steel	0.397	1	0.701	0.013	0.012	1.91	1.29	0.446	0.377	0.01	0.012	0.091	0.021	Φ40×35	
NCS AH 28315	Alloy steel	0.249	0.464	0.444	0.016	0.021	1.64	1.73	0.426	0.218	0.0042	0.0087	0.097	0.024	Φ40×35	
NCS AH 28316	Alloy steel	0.384	0.862	0.583	0.014	0.012	2.06	1.32	0.382	0.35	0.014	0.018	0.095	0.021	Φ40×35	
NCS AH 28317	Q235	0.196	0.107	0.298	0.029	0.038	0.11	0.13	0.0041	0.0015	0.017	0.019	0.119	0.0063	Φ40×35	
NCS AH 28318	CrMo	0.408	0.668	0.501	0.014	0.0013	1.51	0.115	0.112	0.0051	0.188	0.2	0.117	0.0083	Φ40×35	
NCS AH 28319	16Mn	0.178	0.247	1.37	0.025	0.026	0.144	0.126	0.0058	0.0017	0.069	0.074	0.11	0.0044	Φ40×35	
NCS AH 28320	38CrMoAl	0.436	0.207	0.495	0.016	0.026	1.51	0.127	0.182	0.0037	1.06	1.1	0.096	0.0085	Φ40×35	
NCS AH 28321	38CrMoAl	0.411	0.357	0.502	0.014	0.0013	1.52	0.118	0.112	0.0051	0.557	0.56	0.118	0.0084	Φ40×35	
NCS AH 28322	60Si ₂ W	0.582	1.72	1.03	0.024	0.02	0.301	0.304	0.017	0.0037	0.011	0.012	0.091	0.0091	Φ40×35	
NCS AH 28323	60Si ₂ W	0.615	1.99	0.868	0.025	0.036	0.095	0.119	0.019	0.0022	0.017	0.02	0.098	0.0056	Φ40×35	
NCS AH 28324	4Cr10NiCuTi	0.37	0.862	0.889	0.018	0.016	10.83	0.17	0.015	0.017	0.014	0.02	0.275	0.022	Φ40×35	
NCS AH 28325	1Cr13	0.151	0.572	0.681	0.02	0.035	11.55	0.398	0.017	0.015	0.0048	0.015	0.078	0.034	Φ40×35	
NCS AH 28326	2Cr13	0.207	0.472	0.594	0.02	0.026	14.27	0.867	0.026	0.021	0.0017	0.0064	0.077	0.039	Φ40×35	
NCS AH 28327	Cr18	0.433	0.693	0.933	0.019	0.014	18.52	0.176	0.013	0.028	0.011	0.015	0.095	0.034	Φ40×35	
NCS AH 28328	Cr21Ni5Ti	0.129	0.97	0.599	0.048	0.012	22.53	6.01	0.013	0.037	0.144	0.148	0.106	0.089	Φ40×35	
NCS AH 28329	Cr23Ni18	0.124	1.19	0.934	0.021	0.017	22.23	18.25	0.0023	0.035	0.053	0.062	0.021	0.206	Φ40×35	
		W	Ti	As	B	Sn	Sb	Zn								
NCS AH 28302	Stainless steel	0.004	0.076	0.0054	0.0002	0.0037	0.0018	0.0034								
NCS AH 28303	Stainless steel	0.0031	0.029	0.0049		0.0049	0.0016	0.0018								
NCS AH 28304	Stainless steel	0.0052	0.206	0.0046		0.0028	0.0015	0.0016								
NCS AH 28305	Heat resisting alloy	0.0065	0.0032	0.0054		0.0047	0.0021	0.0009								
NCS AH 28307	Heat resisting alloy	2.75	0.0011	0.0041	0.0004	0.004	0.0004	0.005								
NCS AH 28308	Heat resisting alloy	0.0032	0.0011	0.0051		0.004	0.0016	0.002								
NCS AH 28309	Heat resisting alloy	0.0034	0.051	0.0038		0.0023	0.0006	0.0036								
NCS AH 28310	Carbon steel	0.0047	0.0005	0.0068	0.0002	0.0046	0.0019	0.0004								
NCS AH 28311	Alloy steel	0.0053	0.0036	0.0061	0.0003	0.0047	0.002	0.02								
NCS AH 28312	Alloy steel	0.161	0.0009	0.0056	0.0003	0.0054	0.0019	0.0006								
NCS AH 28313	Alloy steel	0.013	0.109	0.0067	0.0003	0.0048	0.0023	0.0023								
NCS AH 28314	Alloy steel	1.2	0.081	0.0064	0.0013	0.0057	0.002	0.0014								
NCS AH 28315	Alloy steel	0.583	0.043	0.0087	0.0003	0.021	0.0056	0.0014								
NCS AH 28316	Alloy steel	1.44	0.061	0.0075	0.0014	0.006	0.0021	0.0016								
NCS AH 28317	Q235	0.0017	0.001													
NCS AH 28318	CrMo	0.0064	0.021													
NCS AH 28319	16Mn	0.0066	0.002													
NCS AH 28320	38CrMoAl	0.0069	0.0023													
NCS AH 28321	38CrMoAl	0.005	0.0066													
NCS AH 28322	60Si ₂ W	1.37	0.0037													
NCS AH 28323	60Si ₂ W	0.682	0.0063													
NCS AH 28324	4Cr10NiCuTi	0.0053	0.06													
NCS AH 28325	1Cr13	0.0049	0.036													
NCS AH 28326	2Cr13	0.0044	0.01													
NCS AH 28327	Cr18	0.0052	0.043													
NCS AH 28328	Cr21Ni5Ti	0.011	0.853													
NCS AH 28329	Cr23Ni18	0.003	0.011													

Section 11 Set-up Sample 1) Iron, Steel & Alloy (Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	Al	As	
NCS AH 28330	15CrMo	0.164	0.222	0.540	0.011	0.0028	0.98	0.045	0.040	0.472	0.0067	0.0023	0.020	0.0078	Φ40×40
NCS AH 28331	Steel	0.062	0.849	1.49	0.011	0.011	0.012	0.0040	0.0098	0.001	0.0012	0.0019	0.002	0.0058	Φ40×40
NCS AH 28332	Steel	0.254	0.293	0.305	0.012	0.0020	0.93	0.183	0.016	0.205	0.040	0.030	0.033	0.0043	Φ40×40
NCS AH 28333	Q460	0.164	0.323	1.44	0.019	0.0091	0.016	0.012	0.015	0.0017	0.019	0.019	0.033	0.0067	Φ40×40
NCS AH 28334	Q345	0.158	0.309	1.45	0.017	0.0033	0.035	0.019	0.022	0.0085	0.030	0.018	0.035	0.0073	Φ40×40
NCS AH 28335	Q550	0.170	0.221	1.34	0.019	0.0079	0.224	0.013	0.016	0.0067	0.0025	0.020	0.025	0.0075	Φ40×40
NCS AH 28336	Q690	0.164	0.174	1.04	0.013	0.0067	0.194	0.014	0.017	0.108	0.0023	0.016	0.023	0.0076	Φ40×40
NCS AH 28337	20MnSiV	0.250	0.435	1.31	0.022	0.015	0.013	0.0064	0.014	0.001	0.047	0.0017	0.002	0.010	Φ40×40
		Nb	Sn	B	Co										
NCS AH 28333	Q460	0.018		0.0003											
NCS AH 28334	Q345	0.036		0.0008											
NCS AH 28335	Q550			0.0020											
NCS AH 28336	Q690			0.0014											
NCS AH 28337	20MnSiV		0.0007		0.0044										
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Ti	Al	As	
NCS AH28338	Q235(15#)	0.129	0.254	0.468	0.030	0.035	0.063	0.050	0.153	0.011	0.002	0.0016	0.003	0.0082	Φ40×40
NCS AH28339	45#	0.453	0.272	0.604	0.022	0.016	0.044	0.039	0.141	0.0066	0.002	0.0012	0.005	0.0060	Φ40×40
NCS AH28340	20CrMo	0.204	0.226	0.503	0.020	0.019	0.909	0.050	0.181	0.192	0.003	0.0011	0.014	0.0080	Φ40×40
NCS AH28341	15Mn	0.166	0.216	0.815	0.012	0.0048	0.065	0.0089	0.013	0.0011	0.002	0.014	0.028	0.0028	Φ40×40
NCS AH28342	20Mn	0.182	0.208	0.801	0.012	0.0064	0.033	0.0085	0.012	0.0014	0.002	0.0019	0.017	0.0018	Φ40×40
NCS AH28343	65Mn	0.620	0.288	0.942	0.024	0.027	0.074	0.036	0.123	0.0064	0.003	0.0021	0.004	0.0067	Φ40×40
NCS AH28344	M20Mn	0.195	0.272	1.18	0.015	0.015	0.083	0.132	0.222	0.017	0.001	0.024	0.042	0.0088	Φ40×40
NCS AH28345	30CrMnTi	0.266	0.317	0.929	0.013	0.014	1.13	0.082	0.148	0.011	0.004	0.071	0.020	0.0073	Φ40×40
NCS AH28346	60Si2Mn	0.574	1.76	0.792	0.020	0.014	0.024	0.019	0.011						Φ40×40
NCS AH28347	ER50-6	0.076	0.90	1.49	0.020	0.011	0.024	0.0059	0.0076						Φ40×40
NCS AH28348	SAE1215	0.065	0.013	1.31	0.056	0.364	0.023	0.0082	0.010						Φ40×40
		Co													
NCS AH28338	Q235(15#)	0.011													
NCS AH28339	45#	0.011													
NCS AH28340	20CrMo	0.013													
NCS AH28341	15Mn	0.0048													
NCS AH28342	20Mn	0.0040													
NCS AH28343	65Mn	0.011													
NCS AH28344	M20Mn	0.011													
NCS AH28345	30CrMnTi	0.012													
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	S	Mn	P	Si	Cr	Ni	Mo	Cu	V	B	Nb		
NCS AH 93303	Low Alloy Steel	0.120	0.014	0.258	0.013	0.120	0.022	0.034		0.122					Φ35×50
NCS AH 93304	Low Alloy Steel	0.172	0.060	0.400	0.018	0.143	0.033	0.041		0.110					Φ35×50
NCS AH 93305	Low Alloy Steel	0.251	0.022	0.518	0.023	0.280	0.041	0.042		0.110					Φ35×50
NCS AH 93306	Low Alloy Steel	0.310	0.031	0.870	0.051	0.480	0.280	0.120		0.355					Φ35×50
NCS AH 93307	Low Alloy Steel	0.458	0.017	0.582	0.022	0.188	0.036	0.042		0.132					Φ35×50
NCS AH 93308	Low Alloy Steel	0.512	0.010	0.690	0.022	0.352	0.077	0.060		0.154					Φ35×50
NCS AH 93309	Low Alloy Steel	0.375	0.047	1.84	0.053	0.770	0.290	0.290		0.225					Φ35×50
NCS AH 93310	Low Alloy Steel	0.182	0.036	1.23	0.028	0.460	0.045	0.040		0.128					Φ35×50
NCS AH 93323	Line Pipe Steel	0.042	0.0028	1.582	0.0078	0.187	0.04	0.175	0.272	0.172	0.04	0.00019	0.03		Φ35×50
		Ti	Al	Ca											
NCS AH 93323	Low Alloy Steel	0.024	0.03	0.00034											

Section 11 Set-up Sample

1) Iron, Steel & Alloy (Disk)

Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	Ti	W	Al	
NCS AH37301	High Manganese Steel	1.24	0.314	12.47	0.061	0.021	1.91	1.11	0.500	0.023	0.162	0.014	0.301		Φ36×36
NCS AH37302	High Manganese Steel	1.28	0.508	13.77	0.057	0.0056	2.42	2.09	1.00	0.041	0.049	0.056	0.004	Φ36×36	
NCS AH37303	High Manganese Steel	1.20	0.351	24.20	0.060	0.0031	1.86	1.65	1.01	0.037	0.049	0.066	0.040	Φ36×36	
NCS AH37304	High Manganese Steel	1.05	0.70	12.07	0.037	0.016	1.72	0.026			0.014			Φ36×36	
NCS AH37305	High Manganese Steel	0.532	0.091	3.76	0.018	0.008	0.459	0.091	0.397		0.030	0.008	0.140	0.004*	Φ34×34
NCS AH37306	High Manganese Steel	0.734	0.254	6.02	0.019	0.012	0.941	0.582	0.735		0.088	0.027	0.313	0.010*	Φ34×34
NCS AH37307	High Manganese Steel	0.780	0.609	9.84	0.028	0.021	1.56	1.62	1.08		0.232	0.092	0.494	0.019*	Φ34×34
NCS AH37308	High Manganese Steel	1.07	0.733	13.97	0.055	0.016	1.89	2.43	1.39		0.311	0.124	0.762	0.023*	Φ34×34
NCS AH37309	High Manganese Steel	1.25	0.949	17.76	0.075	0.027	2.17	3.17	1.69		0.294	0.182	1.05	0.020*	Φ34×34
NCS AH37310	High Manganese Steel	1.10	0.67	22.39	0.020	0.004	1.23	1.69	0.58		0.082	0.088	0.49	0.023*	Φ36×36
NCS AH37311	High Manganese Steel	1.13	0.69	17.93	0.020	0.008	1.45	1.68	0.58		0.108	0.101	0.53	0.019*	Φ36×36
NCS AH37312	High Manganese Steel	1.12	0.70	13.20	0.026	0.007	1.76	1.59	0.70		0.107	0.127	0.65	0.026*	Φ36×36
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	W	Co	N	
NCS AH37313	Stainless Steel	0.098	0.100	8.54	0.035	0.008	17.27	3.88		0.272			0.114	0.076	Φ36×36
NCS AH37314	Stainless Steel	0.132	0.77	8.44	0.044	0.016	16.78	5.42		1.115			0.150	0.101	Φ36×36
NCS AH37315	Stainless Steel	0.138	0.47	0.97	0.028	0.018	16.20	6.19		0.189			0.093	0.128	Φ36×36
NCS AH37316	Stainless Steel	0.081	0.72	1.45	0.029	0.013	18.29	8.03		0.093			0.139	0.069	Φ36×36
NCS AH37317	Stainless Steel	0.106	0.41	1.72	0.027	0.024	24.37	19.13		0.100			0.114	0.078	Φ36×36
NCS AH37318	Stainless Steel	0.538	0.202	8.49	0.018	0.0063	20.31	3.50	0.056	0.033	0.067	0.034	0.034	0.463	Φ36×36
NCS AH37319	Stainless Steel	0.036	0.363	0.807	0.043	0.0096	16.19	10.27	2.02	0.479	0.062	0.054	0.159	0.054	Φ36×36
NCS AH37320	Stainless Steel	0.017	0.290	1.04	0.048	0.031	16.06	10.07	2.01	0.630	0.071	0.040	0.207	0.040	Φ36×36
NCS AH37321	Stainless Steel	0.020	0.338	1.10	0.068	0.049	15.93	10.11	2.03	0.367	0.059	0.089	0.722	0.028	Φ36×36
		Nb													
NCS AH37318	Stainless Steel	0.066													
NCS AH37319	Stainless Steel	0.011													
NCS AH37320	Stainless Steel	/													
NCS AH37321	Stainless Steel	/													
Number	Name	Chemical Composition(Percent)													Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	Ti	W	Al	
NCS AH37322	316L	0.032	0.78	1.45	0.026	0.019	16.14	10.30	2.28	0.026			/		Φ36×36
NCS AH37323	304	0.075	0.77	1.44	0.033	0.025	18.56	8.49	0.089	0.225			/		Φ36×36
NCS AH37324	OCr18Ni10Ti	0.086	0.84	1.45	0.032	0.014	17.45	9.26	0.040	0.16			0.56		Φ36×36
NCS AH37325	1Cr18Ni9Ti	0.134	1.06	1.51	0.033	0.021	17.01	8.56	0.062	0.16			0.61		Φ36×36
NCS AH37326	1Cr13	0.144	0.56	0.71	0.038	0.028	12.07	0.184	/	0.207			/		Φ36×36
NCS AH37327	2Cr13	0.232	0.82	0.80	0.042	0.027	12.42	0.68	0.073	0.12			/		Φ36×36
NCS AH37328	High Manganese Steel	0.78	0.60	9.84	0.028	0.016	1.56	1.62	1.08		0.232	0.092	0.49	0.019*	Φ36×36
NCS AH37329	High Manganese Steel	1.25	0.95	17.76	0.076	0.015	2.17	3.17	1.69		0.294	0.182	1.05	0.020*	Φ36×36
		Co													
NCS AH37322	316L	0.039													
NCS AH37323	304	0.17													
NCS AH37324	OCr18Ni10Ti	0.17													
NCS AH37325	1Cr18Ni9Ti	0.16													
NCS AH37326	1Cr13	0.017													
NCS AH37327	2Cr13	0.030													

Section 11 Set-up Sample

2) Nonferrous Metal

Number	Name	Chemical Composition(Percent)														Unit Size (mm)
		C	Si	Mn	P	S	Cr	Ni	Cu	Als	Alt	As	Sn	Mo		
NCS AH11101	Carbon Steel	0.033	0.029	0.299	0.019	0.011	0.028	0.0053	0.021	0.046	0.048	0.0059	0.006	0.0014	Φ37×40	
NCS AH11102	Carbon Steel	0.213	0.075	0.77	0.013	0.0021	0.015	0.0056	0.017	0.044	0.045	0.016	0.0059	0.0009	Φ37×40	
NCS AH11103	Carbon Steel	0.189	0.055	0.76	0.018	0.0016	0.021	0.0057	0.015	0.039	0.04	0.011	0.0081	0.0009	Φ37×40	
NCS AH11104	Stainless steel	0.237	0.143	0.88	0.018	0.0027	11.55	0.725	0.048				0.0028	0.98	Φ37×40	
NCS AH11105	Mold steel	1.55	0.41	0.384	0.018	0.001	11.94	0.17	0.035				0.0016	0.846	Φ37×40	
NCS AH11106	Tool steel	0.811	0.285	0.365	0.022	0.0016	3.98	0.114	0.083					3.15	Φ37×40	
NCS AH11107	Tool steel	1.1	0.29	0.298	0.018	0.001	3.79	0.215	0.087					9.6	Φ37×40	
NCS AH11108	Low Alloy Steel	0.0023	0.0082	0.475	0.042	0.0047	0.018	0.0054	0.0077	0.038	0.038				Φ37×40	
NCS AH11109	Low Alloy Steel	0.087	1.17	1.96	0.014	0.0017	0.015	0.0055	0.0071	0.044	0.045				Φ37×40	
NCS AH11110	Heat resistant Steel	0.114	0.202	0.337	0.01	0.0017	8.81	0.161	0.112		0.0015	0.0071	0.0064	0.382	Φ37×40	
NCS AH11111	Gray Cast Iron	3.78	2.73	0.606	0.053	0.02	0.7	0.856	0.526				0.032	0.359	Φ31×30	
NCS AH11112	Gray Cast Iron	3.95	2.3	0.511	0.055	0.014	0.251	0.141	0.487				0.055	0.474	Φ31×30	
NCS AH11113	Silicon Steel	0.055	3.44	0.112	0.019	0.025	0.053	0.04	0.02	0.011	0.012		0.049	0.0033	Φ37×40	
NCS AH11114	Silicon Steel	0.068	2.71	0.1	0.023	0.003	0.324	0.341	0.013	0.0064	0.0073	0.003	0.056	0.0066	Φ37×40	
NCS AH11115	Alloy Steel	0.545	1.24	0.717	0.0076	0.017	0.703	0.102	0.0067			0.0026			Φ37×40	
NCS AH11116	Alloy Steel	0.145	0.144	1.46	0.011	0.0006	0.017	0.0068	0.012	1.5	1.5	0.0017	0.0015	0.0032	Φ37×40	
		B	Ca	V	W	Co	Ti	Nb	N	Sb	Als#	Zr#	Al	Mg	Bt	Bs
NCS AH11101	Carbon Steel	0.0002	0.0015													
NCS AH11102	Carbon Steel	0.0004	0.0021													
NCS AH11103	Carbon Steel	0.0003	0.0015													
NCS AH11104	Stainless steel			0.263	1.01	0.109										
NCS AH11105	Mold steel			0.819	0.088	0.034	0.0058	0.061								
NCS AH11106	Tool steel			1.55	8.73	0.136										
NCS AH11107	Tool steel			1.14	1.27	7.94										
NCS AH11108	Low Alloy Steel	0.0003	0.00013				0.0005	0.0092	0.0018							
NCS AH11109	Low Alloy Steel	0.00016	0.0004				0.0034	0.00015	0.0026							
NCS AH11110	Heat resistant Steel	0.0034		0.184	1.67	0.021	0.0004	0.048	0.047	0.0025	<0.001	<0.0005				
NCS AH11111	Gray Cast Iron			0.018			0.117			0.025			0.042	(0.034)		
NCS AH11112	Gray Cast Iron			0.312			0.117						0.014	0.032		
NCS AH11113	Silicon Steel			0.097			0.0033	0.072							0.0053	0.0034
NCS AH11114	Silicon Steel			0.0033			0.053	0.002								
NCS AH11115	Alloy Steel			0.0017			0.028									
NCS AH11116	Alloy Steel			0.0013			0.0037									
Number	Name	Chemical Composition(percent)														Unit Size (mm)
		Cu	Mg	Mn	Fe	Si	Zn	Ti	Ni	Cr	Zr	B	V	Pb	Sn	
NCS AH 49301	Aluminum Alloy	0.096	0.252	0.076	0.188	7.30	0.078	0.146								Φ62×30
NCS AH 49302	Aluminum Alloy	0.495	0.029	0.487	0.769	11.30	0.253									Φ62×30
NCS AH 49303	Aluminum Alloy	3.42	0.169	0.314	0.872	8.27	0.906									Φ62×30
NCS AH 49304	Aluminum Alloy	0.227	1.45	0.066	0.678	10.24	0.170									Φ62×30
NCS AH 49305	Aluminum Alloy	3.87	1.77	0.680	0.419	0.314	0.272	0.078	0.036							Φ62×30
NCS AH 49306	Aluminum Alloy	4.81	0.036	0.718	0.237	0.233	0.161	0.230								Φ62×30
NCS AH 49307	Aluminum Alloy	3.99			0.204	7.18				0.149						Φ62×30
NCS AH 49308	Aluminum Alloy	6.01	0.0171		0.213	0.091	0.020	0.107			0.083	0.157				Φ62×30
Number	Name	Chemical Composition(percent)														Unit Size (mm)
		Cu	Mg	Mn	Fe	Si	Zn	Ti	Ni	Cr	Zr	Pb	Sn			
NCS AH49322	Aluminum Alloy	0.314	0.111	0.337	0.737	12.31	0.099	0.102	0.062		0.052	0.05	0.021			D45×35
NCS AH49323	Aluminum Alloy	3.34	0.19	0.366	0.93	8.98	0.842	0.144	0.284	0.05		0.055	0.158			D45×35
Number	Name	Chemical Composition(percent)														Unit Size (mm)
		Cu	Al	Fe	Mn	Sn	Pb	Ni	Si	Sb	P	Zn	Ag	Bi		
NCS AH45301	Aluminum Brass	66.59	6.82	2.8	2.26	0.25	0.47	0.5	0.11	0.028	0.023	remain				Φ40×35
NCS AH45302	Pure Copper			0.159		0.331	0.074	0.228			0.0992	0.0311	0.388	0.013		Φ38×35
		S	Te	Cd	Cu+Ag											
NCS AH45302	Pure Copper	0.525	0.274	0.0622	98.203											

Section 12 Solution Standard

Number	Name	Nomonal Composition($\mu\text{g}/\text{mL}$)	Medium	Unit Size (mL)
NCSAH 11401	Lithium	1000	HCl(10%)	50
NCSAH 11402	Beryllium	1000	HNO ₃ (10%)	50
NCSAH 11403	Boron	1000	H ₂ O	50
NCSAH 11404	Sodium	1000	H ₂ O	50
NCSAH 11405	Magnesium	1000	HCl(5%)	50
NCSAH 11406	Aluminum	1000	HCl(10%)	50
NCSAH 11407	Silicon	1000	Na ₂ CO ₃	50
NCSAH 11408	Phosphorus(NH ₄)	1000	H ₂ O	50
NCSAH 11409	Phosphorus(K)	1000	H ₂ O	50
NCSAH 11410	Sulfur	1000	H ₂ O	50
NCSAH 11411	Potassium	1000	H ₂ O	50
NCSAH 11412	Calcium	1000	HCl(5%)	50
NCSAH 11413	Scandium	1000	HNO ₃ (20%)	50
NCSAH 11414	Titanium	1000	H ₂ SO ₄ (10%)	50
NCSAH 11415	Vanadium	1000	H ₂ SO ₄ (10%)	50
NCSAH 11416	Vanadium	1000	HCl(10%)	50
NCSAH 11417	Chromium	1000	HCl(10%)	50
NCSAH 11418	Manganese	1000	H ₂ SO ₄ (5%)	50
NCSAH 11419	Manganese	1000	HNO ₃ (10%)	50
NCSAH 11420	Iron	1000	HCl(10%)	50
NCSAH 11421	Cobalt	1000	HNO ₃ (5%)	50
NCSAH 11422	Nickel	1000	HNO ₃ (5%)	50
NCSAH 11423	Copper	1000	H ₂ SO ₄ (5%)	50
NCSAH 11424	Copper	1000	HCl(10%)	50
NCSAH 11425	Zinc	1000	HCl(10%)	50
NCSAH 11426	Gallium	1000	HCl(10%)	50
NCSAH 11427	Arsenic	1000	H ₂ SO ₄ (5%)	50
NCSAH 11428	Arsenic	1000	HCl(10%)	50
NCSAH 11429	Selenium	1000	HCl(10%)	50
NCSAH 11430	Rubidium	1000	HNO ₃ (5%)	50
NCSAH 11431	Strontium	1000	H ₂ O	50
NCSAH 11432	Yttrium	1000	HCl(10%)	50
NCSAH 11433	Zirconium	1000	HCl(10%)	50
NCSAH 11434	Niobium	1000	HF(5%)	50
NCSAH 11435	Molybdenum	1000	H ₂ SO ₄ (5%)	50
NCSAH 11437	Rhodium	1000	HNO ₃ (10%)	50
NCSAH 11438	Palladium	1000	HCl(10%)	50
NCSAH 11439	Silver	1000	HNO ₃ (5%)	50
NCSAH 11440	Cadmium	1000	HCl(10%)	50
NCSAH 11441	Indium	1000	HCl(10%)	50
NCSAH 11442	Tin	1000	HCl(20%)	50
NCSAH 11443	Antimony	1000	H ₂ SO ₄ (25%)	50
NCSAH 11445	Cesium	1000	HNO ₃ (5%)	50
NCSAH 11446	Beryllium	1000	HCl(10%)	50
NCSAH 11447	Lanthanum	1000	HCl(10%)	50
NCSAH 11448	Cerium	1000	HNO ₃ (10%)	50
NCSAH 11449	Praseodymium	1000	HCl(10%)	50
NCSAH 11450	Neodymium	1000	HCl(10%)	50

Section 12 Solution Standard

Number	Name	Nominal Consistence($\mu\text{g}/\text{mL}$)					Medium	Unit Size (mL)
NCSAH 11451	Samarium	1000					HCl(10%)	50
NCSAH 11452	Europium	1000					HCl(10%)	50
NCSAH 11453	Gadolinium	1000					HCl(10%)	50
NCSAH 11454	Terbium	1000					HCl(10%)	50
NCSAH 11455	Dysprosium	1000					HCl(10%)	50
NCSAH 11456	Holmium	1000					HCl(10%)	50
NCSAH 11457	Erbium	1000					HCl(10%)	50
NCSAH 11458	Thulium	1000					HCl(10%)	50
NCSAH 11459	Yttbium	1000					HCl(10%)	50
NCSAH 11460	Latetium	1000					HCl(10%)	50
NCSAH 11461	Hafnium	1000					H ₂ SO ₄ (10%)	50
NCSAH 11462	Tantalum	1000					HF(20%)	50
NCSAH 11463	Tungsten	1000					NaOH(2%)	50
NCSAH 11464	Rhenium	1000					HCl(10%)	50
NCSAH 11466	Irdium	1000					HCl(10%)	50
NCSAH 11467	Platinum	1000					HCl(10%)	50
NCSAH 11468	Gold	1000					HCl(10%)	50
NCSAH 11469	Mercury	1000					HNO ₃ (5%)	50
NCSAH 11470	Thallium	1000					HNO ₃ (20%)	50
NCSAH 11471	Lead	1000					HNO ₃ (10%)	50
NCSAH 11472	Bismuth	1000					HNO ₃ (10%)	50
NCSAH 11473	Germanium	1000					H ₂ O	50
Number	Name	Nominal Consistence($\mu\text{g}/\text{g}$)					Unit Size (in mL)	
NCSAH 76401	Lead in Water	1.00					20or100	
NCSAH 76402	Cadmium in Water	0.100					20or100	
NCSAH 76403	Mercury in Water	0.010					20or50	
NCSAH 76404	Fluoride in Water	1.00					100	
NCSAH 76404	Arsenic in Water	0.50					20or100	
Number	Name	Nominal Consistence($\mu\text{g}/\text{g}$)					Unit Size (in mL)	
NCSAH 76406	Anions in Water	Cl ⁻	NO ₃ ⁻	SO ₄ ²⁻	1000		20or100	
		22.0	4.50	38.0				
Number	Name	Nominal Consistence($\mu\text{g}/\text{g}$)						Unit Size (in mL)
NCSAH 76407	Matal in Water	Cd	Pb	Cu	Cr	Zn	Ni	20or100
NCSAH 76408	Matal in Water	10.0*	50*	30*	50*	90*	60*	20or100

* Unit Certified Value of the element is ng/g.

Number	Name	Concentration($\mu\text{g}/\text{g}$)					Unit Size (in mL)
NCSAH 76409	Silver in Water	1000					20
NCSAH 76410	Arsenic in Water	1000					20
NCSAH 76411	Cadmium in Water	1000					20
NCSAH 76412	Cobalt in Water	1000					20
NCSAH 76413	Chromium in Water	1000					20
NCSAH 76414	Copper in Water	1000					20
NCSAH 76415	Iron in Water	1000					20
NCSAH 76416	Mercury in Water	1000					20
NCSAH 76417	Nicked in Water	1000					20
NCSAH 76418	Lead in Water	1000					20
NCSAH 76419	Zinc in Water	1000					20

Section 12 Solution Standard

Number	Name	Mass Fraction of Substance(10^{-6})	Unit Size (in mL)
NCS AH 76423	Gold Solution	100.0	20
NCS AH 76424	Lanthanum Solution	982.3	20
NCS AH 76425	Cerium Solution	951.5	20
NCS AH 76426	Samarium Solution	982.3	20
NCS AH 76427	Europium Solution	982.3	20
NCS AH 76428	Ytterbium Solution	982.3	20
NCS AH 76429	Lutetium Solution	982.3	20
NCS AH 76430	Yttrium Solution	982.3	20
Number	Name	Range Concentration(mg/L)	Unit Size (mL)
NCS AH 85401	Arsenic	0.1~0.8	20
NCS AH 85402	Ammonia Nitrogen	0.5~5	20
NCS AH 85403	Nitrite Nitrogen	0.05~0.2	20
NCS AH 85404	Nitrite Nitrogen	0.5~5	20
NCS AH 85405	Cu,Pb,Zn,Cd,Ni,Cr	Cu0.5~2,Pb0.5~2,Zn0.1~1,Cd0.1~1,Ni0.1~2,Cr0.1~2	20
NCS AH 85406	F ⁻ ,Cl ⁻ ,SO ₄ ²⁻	F 0.2~5,Cl ⁻ 0.5~100,SO ₄ ²⁻ 5~100	20
NCS AH 85407	Copper	0.01~2	20
NCS AH 85408	Lead	0.01~2	20
NCS AH 85409	Zinc	0.01~2	20
NCS AH 85140	Cadmium	0.01~2	20
NCS AH 85141	Nickel	0.1~2	20
NCS AH 85412	Chromium	0.1~2	20
NCS AH 85413	Fluorine	0.2~5	20
NCS AH 85414	Chlorine	0.01~100	20
NCS AH 85415	Sulfate	0.1~100	20
NCS AH 85416	Mercury	6~20(μ g/L)	20
NCS AH 85417	Total Cyanide	0.05~1	20
NCS AH 85418	Fe,Mn	0.01~2	20
NCS AH 85419	K,Na,Ca,Mg	K0.1~0.5,Na0.1~5,Ca0.1~10,Mg0.1~5	20
NCS AH 85420	Potassium	0.1~5	20
NCS AH 85421	Sodium	0.1~5	20
NCS AH 85422	Calcium	0.1~10	20
NCS AH 85423	Magneium	0.2~5	20
NCS AH 85424	Iron	0.1~5	20
NCS AH 85425	Manganese	0.1~5	20
NCS AH 85426	Total Nitrogen	1~8	20
NCS AH 85427	Vanadium	0.1~1	20
NCS AH 85428	Cobalt	0.05~1	20
NCS AH 85429	Selenium	0.01~1	20
NCS AH 85430	Molybdenum	0.05~1	20
NCS AH 85431	Cr ⁶⁺	0.01~5	20
NCS AH 85432	Phosphrate	0.05~5	20
NCS AH 85433	Total Phosphrous	0.05~5	20
NCS AH 85434	Barium	0.2~2	20
NCS AH 85435	Silver	0.2~1	20
NCS AH 85436	Antimony	0.5~2	20
NCS AH 85437	Aluminum	0.05~2	20
NCS AH 85438	Beryllium	5~20(μ g/L)	20
NCS AH 85439	Lithium	0.2~2.0	20
NCS AH 85440	Strontium	0.3~10	20
NCS AH 85441	Bromine	0.5~3	20

Section 13 Accelerator And Others

Number	Name	Type	Grain size(mm)	Chemical Composition(Percent)			Unit size
				Tap Density	C%	S%	
NCSNC 1111	Tungsten Accelerator	T11	0.9-1.6	7.6-8.6	≤ 0.0008	≤ 0.0005	1kg/2kg
Number	Name	F=1, Δ T=0	Melting Point (°C)			Unit Size (in g)	
			0.20°C /min	1.0°C /min			
NCSAS 93101b	P-Nitrotoluene	51.64	52.09	52.66		2	
NCSAS 93102b	Naphthalene	80.08	80.50	81.01		2	
NCSAS 93103b	Benzoic acid	122.35	122.85	123.37		2	
NCSAS 93104b	1.6-Adipic acid	151.62	152.51	153.12		2	
NCSAS 93105a	Anisic acid	183.28	184.05	184.64		2	
NCSAS 93106	Anthracene	215.88	216.32	216.92		2	
NCSAS 93107b	P-Nitrobenzoic acid	239.58	240.57	241.33		2	
NCSAS 93108b	Anthraquinone	284.55	284.98	285.36		2	
Number	Name	Melting Point (°C)			Unit Size (in g)		
		0.2°C /min	0.5°C /min	1.0°C /min			
NCSAS 93109	Azobenzol	68.34	68.50	68.60		2	
NCSAS 93110	Methylprotocatechuic	81.85	82.12	82.33		2	
NCSAS 93111	Acetanil	114.55	114.74	115.00		2	
NCSAS 93112	P-Acetophenetidine	134.96	135.08	135.23		2	
NCSAS 93113	Albexan	164.70	165.04	165.16		2	
NCSAS 93114	Amber acid	184.02	184.90	185.97		2	
NCSAS 93115	Sulfadimidine	198.32	198.60	198.71		2	
NCSAS 93116	Cyanoguanidine	208.62	209.38	210.16		2	
NCSAS 93117	Saccharin	228.41	228.65	228.84		2	
NCSAS 93118	Coffeine	236.26	236.51	236.60		2	
NCSAS 93119	Chocolax	261.43	261.67	262.61		2	



NATIONAL ANALYSIS CENTER FOR IRON & STEEL
NCS Testing Technology Co., Ltd.

Tel: 86-10-62176511

Fex: 86-10-62187223

E-mail: nacis@ncscrm.com

Website: www.ncsstandard.com

Add: #13 Gaoliangqiao Xiejie Haidian District Beijing China 100081