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PURITY ALUMINUM SETTING-UP SAMPLES

typical analysis listed in mass % except * which is mg/kg

| Number | Si | Ag | As | B* | Ba* | Be | Bi | Ca | Cd | Ce | Co | Cr | Cu | Fe |
|------------------|----------|----------|--------|------|------|----------|----------|----------|----------|---------|----------|----------|----------|----------|
| AL RC11/09 | 0.036 | 0.010 | 0.0035 | . | 3 | 0.0017 | 0.011 | 0.0024 | 0.0045 | 0.0022 | 0.012 | 0.012 | 0.018 | 0.049 |
| R A 10 | <0.0050 | <0.0005 | . | <5 | . | <0.0001 | <0.0020 | <0.0005 | <0.0010 | . | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| AL RC10/02 | <0.0002 | <0.0002 | . | <2 | <1 | <0.0001 | <0.0002 | <0.0001 | <0.0002 | . | <0.0002 | <0.0002 | <0.0002 | <0.001 |
| IARM ALSUS220-24 | <0.0002 | <0.0005 | . | <30 | <1 | <0.0001 | <0.0010 | <0.0005 | <0.0005 | <0.0015 | <0.001 | <0.0003 | 0.001 | <0.0005 |
| MBH SUS-AL1 | <0.0002 | <0.0005 | . | <30 | <1 | <0.0001 | <0.0010 | <0.0005 | <0.0005 | <0.0015 | <0.001 | <0.0003 | 0.001 | <0.0005 |
| KUT Al 4N | 0.0013 | . | . | 0.6 | . | 0.00001 | 0.00001 | 0.00002 | 0.0001 | . | . | 0.00006 | 0.0025 | 0.0018 |
| V E10 | <0.0010 | <0.00005 | . | <2 | <3 | <0.00002 | <0.0003 | <0.0001 | <0.0001 | . | <0.0001 | <0.0001 | <0.0004 | <0.0005 |
| V E1 | <0.00005 | <0.00001 | . | <2 | <1 | <0.00001 | <0.00005 | <0.0001 | <0.00002 | . | <0.00001 | <0.00005 | <0.0004 | <0.0003 |
| V E0 | <0.00008 | <0.00001 | . | <0.4 | <0.1 | <0.00001 | <0.00002 | <0.00004 | <0.00002 | . | <0.00001 | <0.00003 | <0.00004 | <0.00005 |
| AA SQ-10 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| C Al 0 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |

| Number | Ga | Hg | In | La | Li | Mg | Mn | Mo | Na | Ni | P | Pb | Sb | Sc |
|------------------|----------|---------|----------|---------|----------|----------|----------|---------|----------|----------|---------|----------|----------|---------|
| AL RC11/09 | 0.021 | 0.0034 | 0.0073 | 0.012 | 0.0009 | 0.018 | 0.017 | 0.027 | 0.0021 | 0.010 | 0.0025 | 0.016 | 0.013 | 0.0095 |
| R A 10 | <0.0010 | . | . | . | <0.0010 | <0.0010 | <0.0010 | . | <0.0001 | <0.0020 | . | <0.0010 | <0.0020 | . |
| AL RC10/02 | <0.0002 | . | <0.0002 | . | <0.0001 | <0.0003 | <0.0002 | . | <0.0001 | 0.0002 | <0.0005 | <0.0003 | <0.0003 | . |
| IARM ALSUS220-24 | <0.0005 | <0.0010 | <0.0003 | <0.0003 | <0.0001 | <0.0005 | <0.0003 | <0.0005 | <0.0030 | <0.002 | <0.0010 | <0.0005 | <0.0030 | <0.0005 |
| MBH SUS-AL1 | <0.0005 | <0.0010 | <0.0003 | <0.0003 | <0.0001 | <0.0005 | <0.0003 | <0.0005 | <0.0030 | <0.002 | <0.0010 | <0.0005 | <0.0030 | <0.0005 |
| KUT Al 4N | <0.0001 | . | . | . | 0.00002 | 0.0015 | 0.0002 | . | 0.0001 | 0.00004 | . | 0.0001 | 0.0002 | . |
| V E10 | <0.00002 | . | <0.0002 | . | <0.00002 | <0.0003 | <0.0001 | . | <0.0001 | <0.0001 | . | <0.0002 | <0.0003 | . |
| V E1 | <0.00001 | . | <0.00001 | . | <0.00001 | <0.0003 | <0.00005 | . | <0.0001 | <0.00005 | . | <0.00005 | <0.0001 | . |
| V E0 | . | . | <0.00001 | . | <0.00001 | <0.00006 | <0.00002 | . | <0.00002 | <0.00001 | . | <0.00001 | <0.00002 | . |
| AA SQ-10 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| C Al 0 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |

| Number | Sn | Sr | Ti | V | W | Zn | Zr | Units |
|------------------|----------|----------|----------|----------|--------|----------|----------|--|
| AL RC11/09 | 0.019 | 0.0058 | 0.016 | 0.017 | 0.0048 | 0.019 | 0.017 | 60 mm Ø x 25 mm |
| R A 10 | <0.0010 | <0.0010 | <0.0010 | <0.0010 | . | <0.0010 | <0.0010 | 50 mm Ø x 50 mm |
| AL RC10/02 | <0.0002 | <0.0001 | 0.0004 | <0.0002 | . | <0.0005 | <0.0002 | 60 mm Ø x 25 mm |
| IARM ALSUS220-24 | <0.0005 | <0.0001 | <0.0002 | <0.0010 | . | <0.0010 | <0.0005 | 50 mm Ø x 50 mm Hf: <0.001, Y: <0.0030 |
| MBH SUS-AL1 | <0.0005 | <0.0001 | <0.002 | <0.0010 | . | <0.0010 | <0.0005 | 50 mm Ø x 50 mm |
| KUT Al 4N | 0.00005 | 0.0001 | 0.00006 | 0.0001 | . | 0.0003 | 0.00005 | 50 mm Ø x 35 mm |
| V E10 | <0.0003 | <0.00005 | <0.0001 | <0.0002 | . | <0.0003 | <0.0001 | 60 mm Ø x 40 mm |
| V E1 | <0.00002 | <0.00005 | <0.0001 | <0.00003 | . | <0.0002 | <0.00005 | 60 mm Ø x 40 mm |
| V E0 | <0.00002 | <0.00002 | <0.00005 | <0.00003 | . | <0.00005 | <0.00003 | 60 mm Ø x 40 mm |
| AA SQ-10 | . | . | . | . | . | . | . | 64 mm Ø x 37 mm |
| C Al 0 | . | . | . | . | . | . | . | 50 mm Ø x 50 mm |

POT METAL SETTING-UP SAMPLE typical analysis

| Number | Base Metal | B | Li | Na | Units |
|----------|------------|------|------|------|-----------------|
| AA SQ-18 | P0506 | 0.02 | 0.02 | 0.02 | 64 mm Ø x 25 mm |

SPECIALTY ALUMINUM SETTING-UP SAMPLES

typical analysis

| Number | As | Bi | Cu | Fe | Mg | P | Pb | Sb | Sc | Si | Ti | Units |
|----------|------|----|----|----|----|-------|----|------|------|----|----|-----------------|
| AA SQ-19 | 0.03 | . | . | . | . | 0.014 | . | 0.02 | 0.20 | . | . | 64 mm Ø x 37 mm |

ALUMINUM SETTING-UP SAMPLES, chart 1 of 2

typical analysis

| Number | Si | Cu | Fe | Mg | Mn | Ni | Zn | Be | Ca | Cr | Na | Pb | Sb | Sn | Sr | Ti |
|--------------|-------|--------|-------|--------|-------|--------|-------|---------|---------|--------|---------|---------|---------|--------|--------|--------|
| C Al 4 | 18 | 0.01 | 5 | <0.001 | 0.03 | 1.9 | <0.01 | . | 0.009 | . | . | <0.01 | . | . | . | . |
| PY 9601 | 17.3 | 1.21 | 0.43 | 1.09 | 0.12 | 1.1 | 0.07 | . | 0.0026 | . | 0.0003 | 0.006 | 0.02 | 0.004 | 0.0058 | 0.08 |
| LM24 RA18 | 15 | 8.4 | 0.25 | 0.21 | 0.29 | 3.0 | 0.31 | . | 0.04 | . | 0.001 | 0.33 | 0.22 | 0.33 | 0.08 | . |
| R A 20 | 14.8 | 5.4 | 0.78 | 1.1 | 0.27 | 2.7 | 0.16 | <0.0002 | 0.006 | 0.12 | 0.01 | 0.09 | 0.02 | 0.06 | 0.02 | 0.06 |
| MBH RA18-25 | 13.96 | 6.99 | 0.256 | 0.267 | 0.285 | 2.89 | 0.500 | . | 0.0183 | 0.019 | 0.0024 | 0.38 | 0.041 | 0.434 | 0.039 | 0.0176 |
| AL RC40/02 | 13.2 | 1.03 | 1.19 | 1.09 | . | . | 6.03 | . | 0.0131 | . | . | 0.10 | . | 0.21 | 0.14 | 0.20 |
| PY 9327 | 12.8 | 0.01 | 0.15 | 0.003 | 0.005 | 0.003 | 0.01 | . | <0.0007 | . | <0.0004 | 0.001 | <0.0003 | 0.0003 | . | 0.006 |
| PY 9326 | 12.8 | 0.01 | 0.15 | 0.003 | 0.005 | 0.003 | 0.01 | . | <0.0007 | . | <0.0004 | 0.001 | <0.0003 | 0.0003 | . | 0.006 |
| R A 18 | 12.7 | 8.4 | 0.2 | 0.2 | 0.3 | 2.9 | 0.35 | . | <0.005 | <0.01 | <0.005 | 0.4 | 0.1 | 0.3 | <0.01 | <0.003 |
| AL RC40/03 | 12.5 | 1.03 | 1.23 | 1.05 | . | . | 6.14 | . | 0.0195 | . | . | 0.11 | . | 0.21 | 0.14 | 0.20 |
| AA SQ-15 | 12.0 | 0.5 | 0.7 | 1.2 | 0.05 | 2.5 | . | . | . | 0.05 | . | . | . | . | 0.02 | 0.1 |
| PY 9415 | 11.7 | 1.24 | 0.53 | 1 | 0.12 | 0.86 | 0.07 | . | 0.0006 | . | 0.00004 | 0.01 | 0.01 | 0.01 | . | 0.02 |
| PY 2150 | 10.6 | 0.6 | . | 0.9 | 0.4 | 0.5 | 1.2 | . | . | 0.06 | . | 0.8 | . | 0.3 | 0.1 | 0.3 |
| MBH SUS-AL5 | 10.42 | 1.29 | 0.767 | 1.37 | 0.248 | 1.15 | 0.530 | . | . | 0.103 | . | 0.083 | . | 0.145 | . | 0.166 |
| V E3 | 10.0 | 4.0 | . | . | . | 0.9 | . | . | 0.009 | . | . | 0.25 | 0.3 | . | . | . |
| MBH SUS-AL6 | 9.5 | 0.75 | 0.25 | 0.90 | 0.45 | 0.12 | 0.25 | 0.015 | <0.001 | 0.06 | <0.001 | 0.001 | 0.03 | 0.13 | 0.07 | 0.02 |
| C Al 5 | 8.8 | 1.4 | 0.7 | 1.9 | 0.08 | 1.3 | 0.24 | . | . | 0.08 | . | 0.07 | . | 0.07 | . | 0.09 |
| PY 9313 | 8.8 | 0.003 | 0.1 | 0.32 | 0.005 | <0.002 | 0.01 | . | 0.0009 | . | <0.0004 | <0.0004 | <0.003 | 0.0004 | . | 0.12 |
| PY 2001 | 8.5 | 2.9 | 0.7 | 0.22 | 0.23 | 0.05 | 0.13 | . | 0.002 | . | . | 0.07 | . | 0.012 | . | 0.08 |
| PY 9517 | 6.4 | 2.8 | 0.48 | 0.3 | 0.25 | 0.02 | 0.2 | . | 0.009 | . | 0.001 | 0.02 | 0.01 | 0.01 | 0.014 | 0.13 |
| AL RC41/01 | 5.9 | 5.1 | 0.4 | 0.09 | 0.5 | 0.02 | 1.3 | . | 0.004 | 0.03 | . | 0.02 | . | 0.02 | 0.02 | 0.03 |
| PY 20001 | 5.4 | 3.1 | 0.48 | 0.23 | 0.22 | 0.03 | 0.14 | . | 0.0033 | . | 0.00004 | 0.01 | . | 0.01 | . | 0.07 |
| 58A AC19215b | 5.05 | 0.049 | 1.0 | 0.08 | . | . | . | . | . | . | . | . | . | . | . | . |
| AA SQ-16 | 4.0 | 10.0 | 1.0 | 0.3 | 0.2 | 0.2 | 0.2 | . | . | . | . | . | . | . | . | . |
| 58A AC19214b | 3.96 | 0.096 | 2.07 | 0.041 | . | . | . | . | . | . | . | . | . | . | . | . |
| 58A AC19213b | 2.88 | 0.21 | 3.15 | 0.017 | . | . | . | . | . | . | . | . | . | . | . | . |
| R A 19 | 2.3 | 0.4 | 1.2 | 6.6 | 1.1 | 0.5 | 6.9 | 0.007 | <0.02 | 0.1 | <0.005 | <0.01 | . | . | . | 0.2 |
| MBH RA19-25 | 1.61 | 0.8 | 1.25 | 6.58 | 1.24 | 0.583 | 6.97 | . | . | 0.165 | 0.0001 | 0.0162 | 0.028 | . | . | 0.267 |
| C Al 2 | 1.205 | 0.0614 | 0.439 | 0.809 | 0.662 | . | . | . | . | 0.0036 | . | . | . | . | . | 0.052 |
| KUT AMS-1 | 1.2 | 0.6 | 0.8 | 1.3 | 0.5 | 0.02 | 0.4 | 0.002 | 0.01 | 0.2 | 0.005 | 0.05 | 0.02 | 0.03 | . | 0.2 |
| 3.2315 | 1.12 | 0.08 | 0.22 | 0.65 | 0.66 | 0.003 | 0.006 | . | . | 0.005 | . | 0.008 | 0.001 | 0.005 | . | 0.04 |
| AA SQ-12 | 1.1 | 4.8 | 0.6 | 0.15 | 1.1 | 0.25 | 0.20 | 0.005 | . | . | . | 0.06 | . | 0.06 | . | . |
| LM24 RA19 | 1.0 | 0.43 | 0.91 | 6.8 | 1.1 | 0.62 | 7.2 | 0.01 | . | 0.17 | . | . | . | . | . | 0.23 |
| MBH SUS-AL7 | 0.90 | 4.0 | 0.55 | 0.15 | 0.06 | 1.1 | 0.12 | 0.10 | <0.001 | 0.01 | <0.001 | 0.11 | 0.12 | 0.01 | 0.003 | 0.30 |
| 164X ALSUS 7 | 0.9 | 4 | 0.55 | 0.15 | 0.06 | 1.1 | 0.12 | 0.1 | <0.001 | 0.01 | . | 0.11 | 0.12 | 0.01 | 0.003 | 0.3 |
| V E2 | 0.9 | 0.20 | 0.9 | 0.20 | 0.20 | 0.20 | 0.10 | 0.004 | 0.008 | 0.05 | 0.008 | 0.10 | . | 0.20 | 0.11 | 0.20 |

| Number | Si | Cu | Fe | Mg | Mn | Ni | Zn | Be | Ca | Cr | Na | Pb | Sb | Sn | Sr | Ti |
|--------------|--------|-------|--------|----------|---------|--------|-------|------|--------|------|--------|--------|--------|------|---------|----------|
| C Al 4 | . | . | 0.0008 | . | . | . | . | . | . | . | . | . | . | 75 | 50 x 50 | . |
| PY 9601 | . | . | . | . | . | . | . | . | . | . | 0.0086 | . | . | . | 50 x 50 | . |
| LM24 RA18 | . | 0.03 | 0.005 | Ba:0.008 | Ce:0.01 | . | . | . | . | 0.12 | 0.01 | . | . | . | 60 x 40 | . |
| R A 20 | . | . | <0.001 | . | . | 0.007 | . | . | <0.001 | . | 0.017 | 0.12 | 0.08 | rem | 50 x 50 | . |
| MBH RA18-25 | 0.0191 | . | . | . | . | 0.0235 | . | . | . | . | . | 0.0212 | 0.0150 | 73.8 | 65 x 40 | . |
| AL RC40/02 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 60 x 25 | Sc: 0.20 |
| PY 9327 | . | . | . | . | . | . | . | . | . | . | 0.0017 | . | . | . | 50 x 50 | . |
| PY 9326 | . | . | . | . | . | . | . | . | . | . | 0.0017 | . | . | . | 50 x 50 | . |
| R A 18 | . | <0.01 | <0.01 | <0.01 | . | <0.01 | <0.01 | . | . | <0.1 | <0.01 | <0.01 | <0.01 | Rem | 50 x 50 | . |
| AL RC40/03 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 60 x 25 | Sc: 0.20 |
| AA SQ-15 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 64 x 37 | . |
| PY 9415 | . | . | . | . | . | . | . | . | . | . | 0.0058 | . | . | . | 50 x 50 | . |
| PY 2150 | 0.9 | . | . | 0.02 | . | 0.04 | . | 0.06 | . | 0.04 | . | 0.02 | . | . | 60 x 40 | . |
| MBH SUS-AL5 | . | . | . | . | . | 0.004 | . | . | . | . | . | . | . | . | 40 x 15 | . |
| V E3 | . | . | 0.01 | . | . | . | . | . | 0.007 | . | . | . | . | . | 60 x 40 | . |
| MBH SUS-AL6 | 1.0 | . | . | . | . | 0.025 | . | . | <0.001 | . | <0.01 | . | 0.025 | . | 40 x 18 | . |
| C Al 5 | . | . | 0.0010 | . | . | . | . | . | . | . | 0.0050 | . | . | 85.3 | 50 x 50 | . |
| PY 9313 | . | . | . | . | . | . | . | . | . | . | 0.0011 | . | . | . | 50 x 50 | . |
| PY 2001 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 50 x 50 | . |
| PY 9517 | . | . | . | . | . | . | . | . | . | . | 0.002 | . | . | . | 50 x 50 | . |
| AL RC41/01 | . | . | . | . | 0.001 | . | 0.01 | . | . | . | . | 0.008 | 0.005 | . | 60 x 25 | . |
| PY 20001 | . | . | . | . | . | . | . | . | . | . | 0.001 | . | . | . | 50 x 50 | . |
| 58A AC19215b | . | . | . | . | . | . | 0.083 | . | . | . | . | . | . | . | 45 x 35 | . |
| AA SQ-16 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 64 x 37 | . |
| 58A AC19214b | . | . | . | . | . | . | 0.044 | . | . | . | . | . | . | . | 45 x 35 | . |
| 58A AC19213b | . | . | . | . | . | . | 0.024 | . | . | . | . | . | . | . | 45 x 35 | . |
| R A 19 | 0.2 | . | 0.002 | 0.1 | <0.01 | 0.3 | 0.035 | 0.05 | <0.01 | . | . | >0.1 | 0.2 | rem | 50 x 50 | . |
| MBH RA19-25 | 0.118 | . | . | 0.109 | 0.0381 | 0.437 | 0.119 | . | . | . | . | 0.096 | 0.153 | 79.7 | 65 x 40 | . |
| C Al 2 | . | . | . | . | . | 0.010 | . | . | . | . | . | . | . | . | 50 x 50 | . |
| KUT AMS-1 | . | . | 0.004 | 0.01 | 0.03 | . | 0.01 | . | 0.01 | . | . | 0.03 | . | . | 45 x 35 | . |
| 3.2315 | . | . | . | . | . | . | . | . | . | . | . | . | . | Rem | 40 x 25 | . |
| AA SQ-12 | 0.05 | . | . | 0.06 | 0.20 | 0.01 | 0.03 | . | . | . | . | 0.10 | 0.15 | . | 64 x 37 | Hg: 0.01 |
| LM24 RA19 | 0.20 | . | . | 0.27 | 0.05 | 0.32 | 0.07 | 0.07 | 0.01 | . | . | 0.14 | 0.27 | . | 60 x 40 | last |
| MBH SUS-AL7 | 0.09 | . | . | . | . | 0.20 | . | . | <0.001 | . | <0.01 | . | 0.18 | . | 40 x 20 | . |
| 164X ALSUS 7 | . | . | . | . | . | 0.2 | . | . | . | . | . | . | 0.18 | . | 40 x 15 | . |
| V E2 | 0.22 | . | . | . | . | 0.04 | 0.06 | . | . | . | . | 0.11 | . | . | 60 x 40 | . |

| Number | Ag | As | B | Bi | Cd | Co | Ga | In | Li | Mo | P | V | Zr | Al | Ø X H mm |
|--------|----|----|---|----|----|----|----|----|----|----|---|---|----|----|----------|
|--------|----|----|---|----|----|----|----|----|----|----|---|---|----|----|----------|

ALUMINUM SETTING-UP SAMPLES, chart 2 of 2

typical analysis

| Number | Si | Cu | Fe | Mg | Mn | Ni | Zn | Be | Ca | Cr | Na | Pb | Sb | Sn | Sr | Ti |
|--------------|-------|--------|-------|--------|---------|--------|---------|--------|----------|--------|----------|--------|--------|---------|--------|--------|
| LM24 E2/1 | 0.882 | 0.194 | 1.225 | 0.182 | 0.190 | 0.196 | 0.124 | 0.0033 | 0.0029 | 0.096 | 0.0090 | 0.244 | . | 0.180 | 0.0811 | 0.224 |
| PY 9632 | 0.8 | 4.1 | 0.32 | 0.48 | 0.71 | 0.12 | 0.033 | . | . | 0.0181 | . | 0.0096 | . | . | . | 0.022 |
| AA SQ-17 | 0.7 | 0.35 | 0.4 | 1.6 | 0.12 | 0.12 | 0.12 | 0.005 | . | 0.25 | . | 0.1 | . | 0.1 | . | 0.08 |
| MBH SUS-AL4 | 0.619 | 0.290 | 0.292 | 0.878 | 0.076 | 0.010 | 0.003 | . | . | 0.210 | . | . | . | . | . | 0.033 |
| BS 6061 | 0.55 | 0.29 | 0.19 | 0.81 | 0.010 | 0.004 | 0.04 | . | . | 0.050 | . | 0.010 | . | <0.001 | . | 0.024 |
| 3.1645 | 0.5 | 3.3 | 0.4 | 0.7 | 0.6 | 0.03 | 0.2 | . | . | 0.02 | . | 0.8 | <0.01 | . | . | 0.07 |
| AA SQ-13 | 0.5 | 0.04 | 0.6 | 0.04 | 0.04 | 0.04 | 0.04 | 0.005 | . | 0.04 | . | 0.04 | . | 0.04 | . | 0.04 |
| AL RC50/02 | 0.5 | 0.003 | 0.85 | 4.5 | 0.005 | 0.5 | 0.02 | 0.005 | 0.02 | 0.5 | 0.004 | . | 0.05 | 0.3 | 0.02 | 0.04 |
| BS 2017 | 0.30 | 4.05 | 0.25 | 0.51 | 0.51 | 0.006 | 0.065 | . | . | 0.015 | . | 0.010 | . | 0.002 | . | 0.020 |
| AA SQ-11 | 0.2 | 0.5 | 0.2 | 3.0 | 0.4 | . | 6.6 | 0.005 | 0.02 | 0.25 | . | . | . | . | . | 0.10 |
| PY 9627 | 0.2 | 0.13 | 0.57 | 0.0004 | 1.06 | 0.01 | 0.057 | . | . | 0.0223 | <0.00002 | 0.0065 | . | . | . | 0.022 |
| PY 310 | 0.16 | 0.0037 | 0.58 | 0.0003 | 0.0078 | 0.004 | 0.017 | . | . | 0.0028 | <0.00002 | 0.0019 | . | . | . | 0.004 |
| MBH SUS-AL2 | 0.130 | 0.113 | 0.432 | 0.006 | 0.008 | 0.002 | 0.009 | . | . | . | . | . | . | . | . | 0.012 |
| C Al 3 | 0.11 | 0.02 | 0.27 | 2.61 | 0.44 | 0.005 | 0.08 | . | . | 0.13 | . | 0.006 | . | <0.0003 | . | <0.001 |
| PY 9325 | 0.11 | 0.0069 | 0.24 | 4.33 | 0.4 | . | 0.014 | 0.0001 | 0.0003 | 0.0007 | <0.00002 | 0.007 | . | . | . | 0.005 |
| PY 9324 | 0.11 | 0.0055 | 0.24 | 4.28 | 0.4 | . | 0.014 | 0.0001 | 0.0003 | 0.0007 | <0.00002 | 0.007 | . | . | . | 0.005 |
| BS 7075 | 0.10 | 1.40 | 0.13 | 2.26 | 0.03 | 0.005 | 5.6 | . | . | 0.19 | . | 0.003 | . | 0.001 | . | 0.028 |
| 3.4365 | 0.1 | 1.7 | 0.3 | 2.5 | 0.1 | 0.01 | 5.6 | . | . | 0.2 | . | 0.03 | . | 0.03 | . | 0.08 |
| AA SQ-14 | 0.1 | 0.5 | 0.1 | 0.9 | 0.4 | 0.4 | 1.2 | 0.002 | . | . | . | 0.5 | . | 0.1 | . | 0.1 |
| PY 9630 | 0.1 | 0.062 | 0.46 | 0.0006 | 0.0123 | 0.008 | 0.054 | . | . | 0.0216 | 0.00003 | 0.0035 | . | . | . | 0.018 |
| PY 325 | 0.1 | 0.003 | 0.27 | 0.74 | 0.005 | <0.001 | 0.021 | . | 0.0011 | 0.011 | 0.0001 | 0.001 | . | . | . | 0.01 |
| BS 2024 | 0.08 | 4.7 | 0.20 | 1.30 | 0.57 | 0.006 | 0.07 | . | . | 0.03 | . | 0.006 | . | 0.001 | . | 0.030 |
| 3.3525 | 0.08 | 0.004 | 0.17 | 2.8 | 0.22 | 0.002 | 0.007 | . | . | 0.001 | . | 0.002 | . | 0.002 | . | 0.009 |
| MBH SUS-AL3 | 0.067 | 4.33 | 0.221 | 1.44 | 0.649 | 0.003 | 0.033 | . | . | 0.020 | . | . | . | . | . | 0.026 |
| MBH SUS-AL11 | 0.062 | 1.51 | 0.151 | 2.56 | 0.045 | 0.0054 | 5.63 | . | . | 0.198 | . | . | . | . | 0.0001 | 0.028 |
| BS 2011 | 0.052 | 5.2 | 0.32 | 0.016 | 0.010 | 0.004 | 0.024 | . | . | 0.001 | . | 0.56 | . | 0.001 | . | 0.006 |
| PY 9401 | 0.04 | 1.58 | 0.12 | 2.29 | 0.01 | 0.007 | 5.84 | . | . | 0.006 | <0.00002 | . | . | . | . | 0.032 |
| AL RC20/02 | 0.029 | 6.0 | 0.061 | 0.29 | 0.24 | 1.45 | 0.24 | . | . | . | . | 0.41 | 0.20 | 0.051 | . | 0.004 |
| V E8 | 0.012 | 0.020 | 0.013 | 0.005 | 0.006 | 0.004 | 0.005 | 0.001 | 0.004 | 0.005 | . | 0.003 | 0.010 | 0.004 | 0.002 | 0.004 |
| R Al Mn 12 | . | . | . | . | 12 | . | . | . | . | . | . | . | . | . | . | . |
| R Al Ce | Ce: 1 | . | . | 5 | La: 0.4 | . | Nd: 0.1 | . | Pr: 0.05 | . | Sm: 0.01 | . | Y: 0.2 | . | . | . |
| V E5 | . | . | . | 4.8 | 1.3 | . | . | . | . | . | . | . | . | . | . | . |

| Number | Si | Cu | Fe | Mg | Mn | Ni | Zn | Be | Ca | Cr | Na | Pb | Sb | Sn | Sr | Ti |
|--------------|--------|--------|------------|--------|---------|---------|--------|----------|-------|---------|--------|--------|--------|------------|----|------|
| LM24 E2/1 | 0.222 | . | . | . | . | 0.0390 | 0.0580 | . | . | . | 0.102 | . | Rem | 40 x 30 | | |
| PY 9632 | . | . | . | . | . | . | . | . | . | . | 0.033 | . | . | 50 x 50 | | |
| AA SQ-17 | . | . | . | 0.08 | . | . | 0.03 | . | . | . | 0.03 | . | . | 64 x 37 | | |
| MBH SUS-AL4 | . | . | . | . | . | . | 0.015 | . | . | . | 0.015 | . | . | 38 x 40 | | |
| BS 6061 | . | . | . | 0.006 | . | . | . | . | . | . | 0.01 | <0.002 | . | 62 x 50 | | |
| 3.1645 | . | . | . | 0.01 | . | . | 0.01 | . | . | . | . | . | Rem | 40 x 25 | | |
| AA SQ-13 | . | . | . | 0.04 | 0.04 | 0.01 | 0.03 | . | . | 0.04 | 0.4 | . | . | 64 x 37 | | |
| AL RC50/02 | Ce:0.1 | 0.005 | 0.02 | La:0.1 | 0.2 | Mo:0.03 | 0.03 | Pr:0.005 | 0.05 | 0.003 | 0.01 | 0.01 | W:0.04 | 60 x 25 | | |
| BS 2017 | . | . | . | 0.002 | . | . | . | . | . | 0.007 | 0.002 | . | . | 62 x 50 | | |
| AA SQ-11 | . | . | . | . | . | 0.01 | 0.03 | . | . | . | . | . | . | 64 x 37 | | |
| PY 9627 | . | . | . | . | <0.0001 | . | . | 0.0001 | . | 0.00002 | . | 0.01 | . | 50 x 50 | | |
| PY 310 | . | . | . | . | <0.0002 | . | . | <0.00002 | . | 0.00004 | . | . | . | 50 x 50 | | |
| MBH SUS-AL2 | . | . | . | . | . | . | 0.010 | . | . | . | 0.004 | . | . | 38 x 40 | | |
| C Al 3 | . | . | . | . | . | . | 0.008 | . | . | . | . | . | 96.1 | 50 x 30-50 | | |
| PY 9325 | . | . | . | . | <0.0001 | . | . | . | . | . | . | . | . | 50 x 50 | | |
| PY 9324 | . | . | . | . | <0.0001 | . | . | . | . | . | . | . | . | 50 x 50 | | |
| BS 7075 | . | . | . | <0.001 | . | . | . | . | . | 0.006 | 0.006 | . | . | 62 x 50 | | |
| 3.4365 | . | . | . | . | . | . | . | . | . | . | . | . | Rem | 40 x 25 | | |
| AA SQ-14 | . | . | . | 0.5 | . | . | . | . | . | . | . | . | . | 64 x 37 | | |
| PY 9630 | . | . | . | . | 0.0002 | . | . | 0.0001 | . | 0.00007 | . | . | . | 50 x 50 | | |
| PY 325 | . | 0.0007 | . | . | . | . | . | . | . | 0.006 | 0.0005 | . | . | 50 x 50 | | |
| BS 2024 | . | . | . | 0.002 | . | . | . | . | . | 0.01 | 0.01 | . | . | 62 x 50 | | |
| 3.3525 | . | . | . | . | . | . | . | . | . | . | . | . | Rem | 40 x 25 | | |
| MBH SUS-AL3 | . | . | . | . | . | . | 0.014 | . | . | 0.012 | 0.001 | . | . | 38 x 40 | | |
| MBH SUS-AL11 | 0.004 | 0.0022 | Co: 0.0004 | . | . | . | 0.013 | . | . | 0.012 | 0.0006 | 89.87 | . | 38 x 40 | | |
| BS 2011 | . | . | . | 0.44 | . | . | . | . | . | 0.007 | <0.002 | . | . | 62 x 50 | | |
| PY 9401 | . | . | . | . | . | . | . | . | . | . | 0.13 | . | . | 50 x 50 | | |
| AL RC20/02 | 0.73 | . | . | 0.38 | 0.036 | 0.44 | . | . | . | . | 0.17 | . | . | 60 x 25 | | last |
| V E8 | 0.005 | . | 0.005 | 0.006 | 0.003 | 0.003 | 0.006 | . | 0.005 | 0.003 | 0.003 | . | . | 60 x 40 | | |
| R Al Mn 12 | . | . | . | . | . | . | . | . | . | . | . | . | . | 50 x 50 | | |
| R Al Ce | . | . | . | . | . | . | . | . | . | . | 0.02 | . | . | 40 x 25 | | |
| V E5 | . | . | . | 0.2 | . | . | . | . | 0.01 | . | . | . | . | 60 x 40 | | |

CERAMIC SETTING-UP SAMPLE

| Number | Al | C | Fe | O | Ti | W | Units |
|------------|----|---|-----|----|----|-----|-----------------|
| JK CE 650A | 34 | 6 | 2.1 | 30 | 21 | 0.8 | ~25 mm Ø x 8 mm |

COBALT BASE SETTING-UP SAMPLES

typical analysis

T = trace, such as "<0.005" or "<0.01"

MBH: 38 mm Ø x 40 mm

R: ~35-40 mm Ø x ~20-35 mm

| Number | Al | B | C | Co | Cr | Cu | Fe | Mn | Mo | N | Nb | Ni | O | P | S | Si | Sn | Ta | Ti | V | W | Zr |
|-------------|-------|--------|------|------|------|-------|------|------|------|-------|-------|--------|--------|--------|--------|------|--------|--------|--------|-------|------|--------|
| R Co 16 | 0.13 | 0.03 | 0.31 | . | 0.03 | 0.92 | 21.3 | 0.02 | 2.76 | . | 1.82 | <0.001 | . | <0.001 | <0.01 | 0.33 | 0.21 | 0.04 | 0.42 | 0.70 | . | . |
| MBH SUS-CO4 | 0.054 | 0.0021 | 1.10 | 57.6 | 30.9 | 0.015 | 0.84 | 1.50 | 0.97 | 0.026 | 0.037 | 2.86 | 0.0012 | 0.0045 | 0.0004 | 0.65 | 0.0005 | 0.0151 | 0.0076 | 0.011 | 4.01 | 0.0006 |
| R Co 15 | 0.05 | 0.8 | . | 2 | 0.3 | 22 | . | 8 | . | . | 2 | 0.1 | . | 0.03 | 0.06 | 0.9 | . | 0.08 | . | 0.1 | 0.1 | . |
| R Co 14 | 0.05 | 0.05 | 0.5 | 51 | 29 | . | 0.9 | 0.3 | . | . | . | 10 | . | <0.001 | <0.01 | 0.7 | . | . | . | <0.01 | 7 | . |
| R Co 11 | T | . | T | . | T | T | T | T | T | . | T | T | . | T | . | T | . | . | T | T | T | T |

COPPER BASE SETTING-UP SAMPLES

typical analysis listed in mass %

| Number | Cu | Sn | Zn | Al | Bi | Cr | Fe | Mn | Ni | Pb | Si | Ag | As | Au | Be |
|---------------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|----------|
| COPPER | | | | | | | | | | | | | | | |
| R C 11 | Rem | <0.0010 | <0.0005 | . | <0.0030 | <0.0005 | <0.0005 | <0.0010 | <0.0005 | <0.0030 | <0.0005 | <0.0010 | <0.0010 | . | . |
| 2.0070 | Rem | <0.001 | <0.001 | <0.001 | . | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | . | . | . | . |
| MBH SUS-CU1 | 99.93 | 0.0002 | 0.00008 | 0.0001 | 0.00005 | 0.00005 | 0.0003 | 0.00003 | 0.00027 | 0.00012 | 0.0003 | 0.0013 | 0.00015 | . | . |
| R C 20 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| R C 110 | Rem | 0.006 | 0.006 | 0.002 | 0.004 | 0.004 | 0.005 | 0.004 | 0.002 | 0.003 | 0.003 | 0.005 | 0.001 | 0.002 | 0.0002 |
| MBH SUS-CU4 | Rem | 0.02 | 0.0037 | 0.0037 | . | 0.81 | 0.013 | . | 0.0075 | 0.0018 | 0.021 | 0.0014 | 0.0021 | . | . |
| R C 14 | Rem | <0.005 | <0.001 | <0.002 | <0.002 | 0.7 | <0.01 | <0.005 | <0.005 | <0.005 | 0.03 | . | . | . | . |
| C Cu 3 | . | . | . | . | . | . | . | . | . | . | . | . | 0.0875 | . | . |
| MBH SUS-CU7 | 66.7 | 0.011 | 0.150 | 0.001 | . | . | 0.89 | 0.85 | 31.2 | 0.011 | 0.01 | . | . | . | B:0.0049 |
| R C 38 | 67 | 0.01 | 0.01 | <0.01 | <0.01 | <0.001 | 0.7 | 0.8 | 31 | <0.01 | 0.02 | <0.001 | 0.02 | . | . |
| BRASS | | | | | | | | | | | | | | | |
| MBH SUS-CU13 | 75.4 | 0.025 | 21.50 | 0.0004 | . | 0.0004 | 0.0194 | 0.0155 | 0.0020 | 0.0183 | 2.87 | 0.0008 | . | . | . |
| BS SU 464 | [60.3] | 0.73 | 38.8 | . | . | . | 0.05 | . | 0.007 | 0.04 | 0.004 | . | 0.001 | . | . |
| 165X MnB5SUS | 55 | 1.6 | 38 | 3.2 | . | . | 0.55 | 0.20 | 1.1 | 0.20 | 0.40 | . | . | . | . |
| R C 32 | rem | 0.03 | 35.7 | 1.7 | 0.02 | <0.005 | 0.2 | 1.5 | 0.2 | 0.5 | 0.02 | <0.001 | <0.005 | . | . |
| 2.0401 | Rem | 0.2 | 39.9 | . | . | . | 0.2 | <0.01 | 0.09 | 2.4 | . | <0.01 | <0.01 | . | . |
| BRONZE | | | | | | | | | | | | | | | |
| R C 12 | Rem | 0.2 | 0.3 | 0.08 | 0.009 | 0.03 | 0.1 | 0.03 | 0.07 | 0.09 | 0.05 | 0.05 | 0.03 | 0.004 | <0.001 |
| MBH SUS-CU3 | Rem | 11 | 0.05 | 0.001 | 0.02 | 0.001 | 0.002 | <0.001 | 0.06 | 0.04 | 0.001 | . | 0.02 | . | . |
| MBH SUS-CU8 | 84.96 | 0.0072 | 0.0194 | 7.09 | . | . | 1.171 | 5.39 | 1.381 | 0.0009 | 0.086 | . | . | . | . |
| BS SU 932A | 83.5 | 6.88 | 2.29 | . | 0.003 | . | 0.008 | 0.002 | 0.19 | 6.9 | 0.011 | 0.0198 | 0.047 | . | . |
| BS SU 932B | 83.1 | 6.15 | 2.77 | . | . | . | 0.05 | 0.0005 | 0.52 | 7.1 | 0.004 | 0.0006 | 0.016 | . | . |
| BS SU 936 | 82.5 | 7.0 | 0.25 | 0.001 | . | . | 0.003 | 0.001 | 0.36 | 9.6 | 0.004 | . | 0.002 | . | . |
| BS SU 936A | 82.5 | 7.0 | 0.24 | 0.0003 | . | . | 0.0007 | 0.0006 | 0.35 | 9.7 | 0.004 | . | 0.004 | . | . |
| BS SU 932 | 82.1 | 7.28 | 2.80 | . | 0.002 | . | 0.03 | 0.002 | 0.19 | 7.4 | 0.015 | 0.0107 | 0.049 | . | . |
| MBH SUS-CU6 | 81.7 | 0.093 | 0.007 | 9.67 | 0.004 | 0.005 | 2.99 | 0.346 | 5.01 | 0.005 | 0.025 | 0.04 | 0.009 | . | B:0.003 |
| BS SU 936B | 81.0 | 7.5 | 0.54 | <0.005 | . | <0.005 | 0.006 | <0.001 | 0.51 | 10.2 | 0.003 | . | 0.01 | . | . |
| R C 40 | Rem | <0.01 | <0.01 | 8 | . | <0.01 | 1.5 | 5.5 | 2 | 0.02 | 0.02 | . | <0.01 | . | . |
| R C 33 | 80 | 0.03 | 0.08 | 11 | <0.006 | 0.03 | 3.8 | 0.2 | 4.6 | <0.01 | 0.05 | <0.001 | 0.02 | . | . |
| R C 36 | 76 | 7.4 | 1.0 | <0.005 | 0.01 | <0.001 | 0.03 | <0.005 | 1.6 | 14 | <0.005 | 0.015 | 0.009 | . | <0.001 |
| BS SU 863 | 62.7 | 0.031 | 27.1 | 4.87 | . | 0.0005 | 2.3 | 2.85 | 0.06 | 0.040 | 0.025 | . | <0.005 | . | . |
| 2.1052 | Rem | 11.3 | 0.10 | 0.002 | <0.001 | . | 0.3 | <0.001 | 0.40 | 0.4 | <0.001 | 0.01 | . | . | . |
| 2.1090 | Rem | 6.86 | 3.81 | . | 0.005 | . | 0.09 | <0.001 | 1.12 | 5.56 | . | 0.02 | 0.01 | . | . |
| MBH SUS-CU2 | 55 | 1.6 | 38 | 3.2 | . | . | 0.55 | 0.20 | 1.1 | 0.20 | 0.40 | . | . | . | . |

| Number | Cu | Sn | Zn | Al | Bi | Cr | Fe | Mn | Ni | Pb | Si | Ag | As | Au | Be |
|---------------|--------|----------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|----------|------------------|----|
| COPPER | | | | | | | | | | | | | | | |
| R C 11 | . | . | <0.0001 | <0.0010 | <0.0001 | (0.0010) | <0.0010 | <0.0010 | <0.0030 | <0.0001 | <0.0010 | . | . | 40 mm Ø x 40 mm | . |
| 2.0070 | . | . | . | . | . | . | <0.001 | . | <0.001 | . | . | . | . | 40 mm Ø x 25 mm | . |
| MBH SUS-CU1 | 0.0010 | . | 0.00007 | 0.00003 | 0.00006 | 0.0002 | 0.0004 | 0.0005 | 0.00014 | 0.0002 | 0.0010 | . | N:0.0001 | 38 mm Ø x 40 mm | . |
| R C 20 | . | . | . | . | . | 0.038 | . | . | . | . | . | . | . | 40 mm Ø x 40 mm | . |
| R C 110 | . | . | 0.003 | 0.003 | 0.003 | . | 0.003 | 0.004 | 0.006 | 0.005 | 0.007 | 0.001 | <0.002 | 40 mm Ø x 40 mm | . |
| MBH SUS-CU4 | . | . | . | . | 0.0012 | . | 0.0058 | 0.0012 | . | . | . | . | 0.17 | 50 mm Ø x 17 mm | . |
| R C 14 | . | . | . | . | . | . | <0.005 | <0.001 | . | . | . | . | 0.1 | 40 mm Ø x 40 mm | . |
| C Cu 3 | . | . | 0.0096 | 0.0496 | . | . | . | 0.0229 | . | 0.0475 | 0.0194 | . | last | 40 mm Ø x 30 mm | . |
| MBH SUS-CU7 | 0.024 | . | . | 0.016 | . | . | 0.007 | 0.045 | . | . | . | . | . | 38 mm Ø x 40 mm | . |
| R C 38 | . | . | <0.01 | <0.001 | <0.001 | . | <0.01 | <0.01 | 0.01 | . | . | . | <0.001 | 40 mm Ø x 40 mm | . |
| BRASS | | | | | | | | | | | | | | | |
| MBH SUS-CU13 | . | . | . | . | . | . | 0.102 | 0.0009 | 0.0020 | . | . | . | . | 38 mm Ø x 40 mm | . |
| BS SU 464 | 0.0006 | . | . | . | . | . | 0.0009 | 0.005 | 0.001 | 0.006 | . | . | . | 38 mm Ø x 40 mm | . |
| 165X MnB5SUS | . | . | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x 17 mm | . |
| R C 32 | . | . | <0.001 | . | . | . | <0.01 | . | 0.02 | . | . | . | . | 40 mm Ø x 40 mm | . |
| 2.0401 | . | . | . | . | . | . | <0.01 | <0.001 | . | . | . | . | . | 40 mm Ø x 25 mm | . |
| BRONZE | | | | | | | | | | | | | | | |
| R C 12 | . | . | 0.05 | 0.04 | 0.003 | . | 0.1 | 0.05 | 0.04 | 0.01 | 0.01 | 0.003 | <0.001 | 40 mm Ø x 30 mm | . |
| MBH SUS-CU3 | . | . | . | 0.01 | . | . | 0.002 | 0.03 | 0.15 | 0.01 | . | . | . | 42 mm Ø x 18 mm | . |
| MBH SUS-CU8 | . | . | . | 0.0011 | . | . | 0.009 | . | 0.0007 | . | . | . | . | 35 mm Ø x 40 mm | . |
| BS SU 932A | 0.001 | . | . | . | . | . | 0.007 | 0.053 | 0.15 | . | . | . | . | 38 mm Ø x 40+ mm | . |
| BS SU 932B | 0.002 | . | . | . | . | . | 0.008 | 0.046 | 0.19 | . | . | . | . | 38 mm Ø x 40+ mm | . |
| BS SU 936 | 0.0008 | . | . | 0.009 | . | 0.003 | 0.07 | 0.007 | 0.10 | . | . | . | . | 50 mm Ø x 19 mm | . |
| BS SU 936A | 0.009 | . | . | 0.008 | . | 0.0037 | 0.031 | 0.007 | 0.13 | . | . | . | . | 50 mm Ø x 19 mm | . |
| BS SU 932 | 0.002 | . | . | . | . | . | 0.008 | 0.051 | 0.13 | . | . | . | . | 38 mm Ø x 40+ mm | . |
| MBH SUS-CU6 | 0.004 | Ge:0.003 | 0.002 | 0.022 | 0.003 | 0.001 | 0.005 | 0.003 | <0.02 | <0.03 | 0.04 | N:0.002 | <0.002 | 38 mm Ø x 40 mm | . |
| BS SU 936B | <0.05 | . | 0.01 | . | . | 0.01 | 0.03 | 0.03 | 0.14 | . | . | . | . | 38 mm Ø x 40+ mm | . |
| R C 40 | . | . | . | . | <0.01 | . | <0.01 | . | . | . | . | . | . | 40 mm Ø x 40 mm | . |
| R C 33 | . | . | <0.005 | <0.01 | <0.001 | . | <0.01 | <0.005 | . | . | . | . | <0.001 | 40 mm Ø x 40 mm | . |
| R C 36 | . | . | <0.001 | <0.001 | <0.001 | . | <0.01 | 0.04 | 0.23 | . | . | <0.001 | <0.001 | 40 mm Ø x 40 mm | . |
| BS SU 863 | 0.002 | . | . | <0.005 | <0.005 | . | 0.0081 | 0.0003 | 0.009 | . | . | . | <0.005 | 38 mm Ø x 40+ mm | . |
| 2.1052 | . | . | . | . | . | . | 0.02 | 0.01 | <0.001 | . | . | . | . | 40 mm Ø x 25 mm | . |
| 2.1090 | . | . | . | . | . | . | 0.02 | 0.04 | 0.09 | . | . | . | . | 40 mm Ø x 25 mm | . |
| MBH SUS-CU2 | . | . | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x 17 mm | . |

| Number | C | Ca | Cd | Co | Mg | O | P | S | Sb | Se | Te | Ti | Zr | Units |
|--------|---|----|----|----|----|---|---|---|----|----|----|----|----|-------|
|--------|---|----|----|----|----|---|---|---|----|----|----|----|----|-------|

LEAD BASE SETTING-UP SAMPLES

chill cast typical analysis listed in mass % except * which is mg/kg

| Number | Sn | Sb | Ag | As | Bi | Cd | Cu | Fe | In | Ni | S | Te | Tl | Zn |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|--------|---------|
| R Pb 15 | 30 | 2.2 | 2.6 | 0.07 | 0.10 | 0.02 | 1.5 | <0.001 | <0.01 | 0.002 | . | . | . | 0.08 |
| R Pb 17 | 3.8 | 10.2 | 1.6 | 0.09 | 0.1 | 0.001 | 1.8 | 0.002 | <0.001 | 0.002 | <0.001 | 0.003 | . | <0.005 |
| MBH SUS-PB3 | 0.309 | . | 0.00106 | . | 0.0081 | 0.125 | . | . | . | 0.000221 | . | . | . | . |
| MBH SUS-PB2 | 0.1715 | . | 0.00030 | . | 0.00034 | 0.0601 | 0.00077 | . | . | . | . | . | . | . |
| R Pb 13 | 0.14 | 0.15 | 0.05 | 0.05 | 0.29 | 0.06 | 0.14 | . | . | . | . | 0.03 | (0.03) | 0.06 |
| R Pb 16 | 0.12 | <0.001 | 0.002 | <0.001 | <0.01 | <0.001 | <0.001 | <0.001 | <0.0005 | <0.001 | 0.002 | . | <0.001 | <0.001 |
| R Pb 18 | 0.07 | 1.28 | 0.11 | 3.32 | >3.34 | 0.02 | 0.05 | <0.0001 | 0.02 | <0.001 | 0.003 | 0.02 | 0.019 | 0.0001 |
| R Pb 14 | <0.005 | 12.6 | 0.008 | 1.4 | 0.02 | <0.005 | 0.06 | <0.001 | <0.002 | <0.001 | 0.01 | <0.005 | . | <0.001 |
| R Pb 11 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0030 | <0.0005 | <0.0005 | <0.0005 | . | <0.0005 | . | <0.0005 | . | <0.0005 |
| MBH SUS-PB1 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | 0.006 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | . | <0.0005 |
| R Pb PM | . | . | 0.0100 | . | . | . | . | . | . | . | . | . | . | . |

continued

MBH: 40-49 mm Ø x 15-20 mm R Pb: 40 mm Ø x 30 mm

| Number | Al | Au | Ba | Ca | Co* | Cr* | Ge | Hg | Ir* | Mg* | Mn* | Na | Pd | Pt | Rh* | Ru* | Se |
|-------------|---------|--------|--------|---------|-----|-----|---------|----|-----|------|-----|---------|--------|---------|-----|-----|---------|
| R Pb 15 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| R Pb 17 | 0.002 | 0.003 | . | . | . | . | (0.001) | . | . | . | . | . | 0.001 | (0.001) | . | . | . |
| MBH SUS-PB3 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| MBH SUS-PB2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| R Pb 13 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.003 |
| R Pb 16 | 0.03 | . | (0.01) | 0.2 | . | . | . | . | . | (10) | . | <0.001 | . | . | . | . | . |
| R Pb 18 | <0.0001 | . | . | <0.0001 | <1 | 1 | . | . | . | . | . | . | . | . | . | . | (0.01) |
| R Pb 14 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| R Pb 11 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| MBH SUS-PB1 | <0.0005 | . | . | <0.0005 | <5 | . | . | . | . | <5 | <5 | <0.0005 | . | . | . | . | <0.0005 |
| R Pb PM | . | 0.0100 | . | . | . | . | . | . | 3 | . | . | . | 0.0050 | 0.0050 | 50 | 50 | . |

MAGNESIUM BASE SETTING-UP SAMPLES

cast typical analysis listed in mass %

| Number | Al | Cd | Cu | Fe | Mg | Mn | Ni | Pb | Si | Sn | Zn | Zr |
|-----------|-------|--------|--------|--------|------|-------|--------|-------|-------|--------|--------|--------|
| R Mg 17 | 7.5 | <0.01 | <0.01 | 0.009 | Rem | 0.2 | 0.001 | . | 0.04 | 0.03 | 0.4 | <0.001 |
| R Mg 14 | 7.5 | <0.001 | 0.3 | <0.01 | Rem | (0.3) | 0.06 | . | 0.8 | <0.002 | 0.95 | <0.001 |
| R Mg 13 * | 5.7 | 0.0001 | 0.006 | 0.001 | Rem | 0.2 | 0.001 | 0.001 | 0.01 | 0.001 | 0.8 | 0.004 |
| C Mg 2 * | 5.7 | 0.0001 | 0.006 | 0.001 | Rem | 0.2 | 0.001 | 0.001 | 0.01 | 0.001 | 0.8 | 0.004 |
| R Mg 11 | 0.022 | . | <0.003 | <0.004 | 99.9 | 0.022 | <0.005 | . | 0.037 | . | <0.005 | . |
| R Mg 16 | . | . | . | 0.01 | Rem | . | . | . | . | . | . | <0.001 |

continued * currently R Mg 13 and C Mg 2 have the same chemistry

| Number | Ce | La | Na | Nd | Pr | Sm | Y | Units |
|-----------|-----|------|--------|-----|------|----|-----|-----------------|
| R Mg 17 | . | . | <0.001 | . | . | . | . | 50 mm Ø x 50 mm |
| R Mg 14 | . | . | <0.01 | . | . | . | . | 50 mm Ø x 50 mm |
| R Mg 13 * | . | . | 0.001 | . | . | . | . | 50 mm Ø x 50 mm |
| C Mg 2 * | . | . | 0.001 | . | . | . | . | 50 mm Ø x 30 mm |
| R Mg 11 | . | . | . | . | . | . | . | 50 mm Ø x 50 mm |
| R Mg 16 | 1.6 | 0.84 | . | 2.4 | 0.16 | . | 3.8 | 50 mm Ø x 50 mm |

NICKEL-PHOSPHORUS LAYER ON STEEL

| Number | Ni | P% | Pb% | Layer | Intended For | Unit |
|--------------|-----|-----|------|-------|--------------|----------------------------|
| JK SUS NiP-1 | Rem | 5.8 | 0.26 | 8.7µm | GD-OES | plate 102mm x 68mm x 0.5mm |

TITANIUM BASE SETTING-UP SAMPLES

typical analysis

40 mm Ø x 40 mm

| Number | Ti | Al | C | Fe | Mn | Mo | Pd | Sn | V | Zr | B | Co | Cr | Cu | H |
|-------------|------|-------|-------|-------|--------|-------|------|-------|--------|--------|--------|--------|-------|--------|--------|
| R Ti 11 | 99.9 | . | 0.01 | 0.05 | . | . | . | . | . | . | . | . | . | . | . |
| MBH SUS-TI2 | 99.6 | 0.007 | 0.012 | 0.085 | 0.0021 | 0.003 | 0.14 | 0.007 | 0.0021 | 0.0018 | 0.0008 | 0.0016 | 0.007 | 0.0014 | 0.0012 |
| MBH SUS-TI3 | 89.5 | . | . | . | 0.0026 | . | . | . | . | . | . | . | . | . | . |
| R Ti 12 | Rem. | . | 0.02 | 0.2 | . | . | 0.2 | . | . | . | . | . | . | . | . |
| R Ti 13 | Rem. | 6 | <0.01 | 0.2 | . | . | . | . | 4 | . | . | . | . | . | . |
| R Ti 14 | Rem. | 6 | <0.01 | 0.02 | . | 2 | . | 2 | . | 4 | . | . | . | . | . |

continued analysis

| Number | H | Hf | Mg | N | Nb | Ni | O | P | Ru | S | Si | Ta | W | Y |
|-------------|--------|---------|--------|-------|-------|-------|-------|--------|--------|-------|-------|--------|--------|--------|
| MBH SUS-TI2 | 0.0012 | 0.00001 | 0.0331 | 0.009 | 0.004 | 0.014 | 0.166 | 0.0014 | 0.0009 | 0.002 | 0.015 | 0.0061 | 0.0001 | 0.0001 |

ZINC BASE SETTING-UP SAMPLES

typical analysis

C: 40 mm Ø x 30-40 mm

JK, R: 40 mm Ø x 30 mm

MBH: 40-50 mm Ø x 15-20 mm

| Number | Al | Cd | Cu | Fe | Mg | Mn | Ni | Pb | Sb | Sn | Tl | Ag | Bi | Cr | Ga | In | Ti | Zn |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|---------|---------|---------|---------|---------|-------|
| MBH SUS-ZN4 | 10.71 | 0.0108 | 2.470 | 0.074 | 0.0062 | . | . | 0.0122 | . | 0.0110 | . | . | . | . | . | . | . | . |
| R Zn 14 | 8 | 0.02 | 2 | 0.06 | 0.09 | 0.03 | <0.001 | 0.09 | <0.001 | 0.04 | <0.001 | <0.001 | . | . | . | <0.001 | 0.009 | 90 |
| C Zn 3/4 | 3.93 | 0.001 | 0.071 | 0.016 | 0.055 | . | . | 0.0056 | . | 0.001 | . | . | . | . | . | . | . | . |
| C Zn 4 | 1.0 | 0.14 | 0.66 | 0.02 | . | . | . | 2.08 | . | 1.73 | . | . | . | . | . | . | . | . |
| R Zn 13 | 0.4 | 0.3 | 0.3 | 0.01 | <0.01 | <0.01 | 0.04 | 0.6 | 0.2 | 0.3 | 0.05 | 0.05 | . | . | . | 0.2 | <0.01 | 97 |
| MBH SUS-ZN3 | 0.35 | 0.30 | 0.35 | 0.05 | 0.002 | 0.001 | 0.06 | 0.60 | 0.20 | 0.30 | 0.06 | 0.04 | 0.005 | 0.001 | . | 0.25 | 0.001 | . |
| R Zn 16 | 0.23 | 0.049 | 0.011 | 0.092 | . | . | . | 0.23 | . | 0.009 | . | . | . | . | . | . | . | . |
| R Zn 15 | 0.2 | 0.4 | 0.2 | 0.2 | . | 0.005 | . | 0.1 | 0.04 | 0.05 | . | . | . | . | . | . | . | Rem |
| JK SUS Zn-1 | 0.2024 | 0.0014 | 0.0014 | 0.0273 | . | 0.0006 | 0.0043 | 0.0021 | 0.00001 | 0.00003 | 0.0008 | 0.0002 | 0.00002 | 0.0055 | 0.00004 | . | . | . |
| JK SUS Zn-5 | 0.1992 | 0.0063 | 0.0015 | 0.0318 | . | 0.0009 | 0.0047 | 0.0108 | 0.0024 | 0.0099 | 0.0003 | 0.0002 | 0.0136 | 0.0081 | 0.0019 | 0.0029 | . | . |
| JK SUS Zn-2 | 0.1394 | 0.0075 | 0.0019 | 0.0314 | . | 0.0007 | 0.0043 | 0.0077 | 0.0034 | 0.0061 | 0.0005 | 0.0002 | 0.0056 | 0.0063 | 0.00004 | . | . | . |
| MBH SUS-ZN1 | 0.0126 | 0.00008 | 0.0018 | 0.0052 | 0.00016 | 0.00006 | 0.0004 | 0.0017 | 0.00003 | 0.00006 | 0.0003 | 0.0002 | 0.0003 | 0.00009 | . | <0.0005 | 0.00004 | 99.96 |
| R Zn 12 | 0.006 | 0.008 | 0.009 | 0.024 | 0.005 | 0.002 | 0.008 | 0.009 | (0.01) | 0.007 | 0.007 | 0.004 | 0.006 | . | . | 0.009 | 0.006 | 99.9 |
| R Zn 11 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | . | <0.0005 | . | . | . | . | . | . | <0.0010 | 99.99 |

Continued analysis

| Number | As | Ce | Hg | La | Si |
|-------------|--------|-------|---------|-------|-------|
| MBH SUS-ZN4 | . | 0.079 | . | 0.041 | . |
| MBH SUS-ZN3 | . | . | . | . | 0.003 |
| MBH SUS-ZN1 | <0.001 | . | <0.0001 | . | . |

CAST IRON SETTING-UP SAMPLES

| chill cast | | typical analysis | | | | | | | | | | | | | | | | |
|--------------|-------|------------------|-------|--------|------|-------|-------|-------|--------|--------|---------|--------|-------|-------|-------|--------|----------|--|
| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Al | Nb | Sn | Ti | V | W | Mg | Ce | |
| MBH SUS-CFE9 | 4.5 | 0.10 | 0.048 | 0.11 | 1.64 | 0.011 | 0.040 | 0.087 | 0.027 | 0.17 | . | . | 0.41 | 0.12 | . | . | . | |
| C Fe 5 | 4.12 | 0.2 | 0.09 | 0.03 | 0.36 | 0.08 | 0.08 | 0.11 | 0.11 | 0.05 | <0.0015 | 0.003 | 0.02 | 0.13 | . | . | . | |
| NCS AH11355a | 4.07 | 0.220 | 0.054 | 0.041 | 1.45 | 0.266 | 1.46 | 2.12 | 0.724 | 0.073 | 0.022 | 0.146 | 0.042 | 0.090 | 0.039 | 0.0024 | (0.0006) | |
| SUS 5/60 | 3.8 | 0.61 | . | 0.008 | 2.0 | 0.018 | 1.01 | 0.03 | . | 0.04 | . | 0.08 | 0.006 | 0.52 | . | 0.10 | 0.03 | |
| C Fe 7 | (3.8) | 0.18 | 0.021 | 0.024 | 2.53 | 0.24 | 0.01 | 0.03 | <0.01 | <0.01 | . | 0.003 | 0.009 | 0.008 | . | 0.056 | . | |
| SUS 2/50 | 3.6 | 0.71 | 0.28 | 0.10 | 1.8 | 0.41 | 0.48 | 0.04 | 0.09 | 0.01 | . | 0.13 | 0.05 | 0.54 | . | . | . | |
| MBH SUS-CFE3 | 3.5 | 1.3 | 0.3 | 0.13 | 2.1 | 0.6 | 0.9 | 0.6 | 0.5 | 0.037 | . | 0.17 | 0.07 | 0.5 | . | . | . | |
| SUS GGG | 3.5 | 0.3 | 0.03 | 0.008 | 2.1 | 0.6 | 0.02 | 0.04 | 0.008 | 0.03 | . | 0.08 | 0.01 | 0.004 | . | 0.03 | . | |
| R G 13+Se | 3.4 | 1.0 | 0.6 | 0.06 | 2.1 | 0.7 | 0.5 | 1.0 | 0.3 | 0.05 | <0.01 | 0.3 | 0.03 | 0.3 | 0.01 | . | . | |
| SUS 3/21 | 3.4 | 0.90 | 1.0 | 0.10 | 2.2 | 0.01 | 0.01 | 0.25 | <0.005 | <0.005 | . | <0.005 | 0.11 | 0.27 | . | . | . | |
| BS SU CCD | 3.28 | 0.59 | 0.020 | 0.008 | 2.53 | 0.050 | 0.020 | 0.030 | 0.002 | 0.015 | . | 0.002 | 0.006 | 0.014 | . | 0.032 | . | |
| SUS 1/20 | 3.2 | 0.45 | 0.06 | 0.06 | 2.7 | 0.53 | 0.21 | 0.48 | 0.34 | 0.02 | . | 0.05 | 0.013 | 0.04 | . | . | . | |
| C Fe 8 | 3.2 | 0.42 | 0.025 | 0.02 | 1.3 | 0.062 | 0.11 | 0.05 | <0.01 | 0.05 | <0.001 | 0.01 | 0.05 | 0.04 | <0.01 | . | . | |
| R C 16 | 3.2 | 0.2 | 0.2 | <0.005 | 1.8 | 0.09 | 1.2 | 1.0 | . | 0.06 | . | 0.2 | 0.04 | 0.2 | . | 0.05 | 0.03 | |
| SUS 4/29 | 3.2 | 0.15 | . | 0.01 | 2.7 | 0.78 | 0.10 | 0.10 | . | 0.01 | . | <0.005 | 0.06 | 0.51 | . | 0.02 | . | |
| MBH SUS-CFE8 | 3.2 | 0.066 | 0.045 | 0.064 | 0.69 | 0.008 | 0.029 | 0.057 | 0.014 | 0.060 | . | . | 0.25 | 0.081 | . | . | . | |
| R G 14 | 3.18 | 0.18 | 0.05 | . | 1.89 | 0.07 | 1.16 | 0.97 | 0.7 | 0.04 | . | 0.16 | <0.01 | 0.15 | . | 0.06 | 0.04 | |
| R G 13 | 3.1 | 1.0 | 0.5 | 0.1 | 2.0 | 0.5 | 0.5 | 1.1 | 0.3 | 0.05 | . | 0.3 | 0.06 | 0.4 | . | . | . | |
| R N 15 | 2.9 | 1.6 | 0.008 | 0.07 | <0.1 | 4.4 | 0.5 | 0.05 | . | 0.14 | . | 0.05 | 0.06 | 0.01 | . | . | . | |
| SUS 7/8 | 2.8 | 0.29 | 0.09 | 0.18 | 0.94 | 0.21 | . | 0.07 | . | 0.02 | . | <0.01 | . | 0.06 | . | . | . | |
| BS DNR-2 | 2.72 | 0.85 | 0.031 | 0.006 | 2.52 | 0.02 | 18.9 | 1.62 | 0.007 | <0.1 | <0.05 | <0.1 | <0.05 | <0.1 | . | 0.05 | . | |
| BS DNR-1 | 2.52 | 0.88 | 0.031 | 0.005 | 2.79 | 0.016 | 18.6 | 1.56 | 0.006 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | . | 0.04 | . | |
| NCS AH11354a | 2.25 | 1.17 | 0.375 | 0.095 | 2.66 | 1.65 | 0.623 | 0.493 | 0.253 | 0.072 | 0.117 | 0.046 | 0.184 | 0.518 | 0.434 | 0.0056 | (0.0033) | |
| R C 15 | 2.1 | 0.8 | 0.3 | 0.1 | 4.4 | <0.01 | 0.5 | 0.6 | 0.9 | 0.06 | . | 0.1 | . | . | . | . | . | |
| MBH SUS-CFE7 | 1.6 | 0.17 | 0.051 | 0.004 | 0.12 | 0.003 | 0.013 | 0.017 | 0.003 | 0.004 | . | . | 0.002 | 0.015 | . | . | . | |
| C Fe 4 | 1.53 | 0.40 | 0.012 | 0.012 | 0.31 | 0.06 | 0.27 | 11.4 | 0.75 | <0.005 | <0.02 | <0.02 | <0.02 | 0.90 | <0.02 | . | . | |

| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Al | Nb | Sn | Ti | V | W | Mg | Ce |
|--------------|--------|-------|--------|--------|-------|------------|-------|--------|--------|-------|-------|----|----|-----------------------|---|----|----|
| Number | As | B | Bi | Ca | Co | La | N | Pb | Sb | Se | Te | Zn | Zr | Units | | | |
| MBH SUS-CFE9 | . | . | . | . | 0.019 | . | . | . | . | . | . | . | . | 40 mm Ø x 15 mm | | | |
| C Fe 5 | . | . | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x 30 mm | | | |
| NCS AH11355a | . | 0.013 | . | . | 0.027 | (0.0003) | . | . | . | . | . | . | . | 31 mm Ø x 24 mm | | | |
| SUS 5/60 | 0.001 | . | . | . | . | . | . | . | 0.05 | . | . | . | . | 60 mm x 35 mm x 18 mm | | | |
| C Fe 7 | . | . | . | . | . | . | . | <0.001 | . | . | . | . | . | 40 mm Ø x 50 mm | | | |
| SUS 2/50 | . | . | . | . | . | . | . | . | . | . | . | . | . | 60 mm x 35 mm x 18 mm | | | |
| MBH SUS-CFE3 | . | . | . | . | . | . | . | . | . | . | . | . | . | 34 mm Ø x 37 mm | | | |
| SUS GGG | . | . | . | . | 0.003 | . | . | . | . | . | . | . | . | 40 mm Ø x 25 mm | | | |
| R G 13+Se | . | . | . | . | <0.01 | . | . | <0.001 | . | -0.02 | . | . | . | ~40 mm Ø x 20 mm | | | |
| SUS 3/21 | . | . | . | . | . | . | . | . | . | . | . | . | . | 60 mm x 35 mm x 18 mm | | | |
| BS SU CCD | 0.001 | . | . | 0.0027 | 0.009 | . | . | . | . | . | . | . | . | 33 mm Ø x 17 mm last | | | |
| SUS 1/20 | . | . | . | . | . | . | . | . | . | . | . | . | . | 60 mm x 35 mm x 18 mm | | | |
| C Fe 8 | . | 0.03 | . | . | 0.005 | . | . | . | . | . | 0.003 | . | . | 38 mm Ø x 20 mm | | | |
| R C 16 | . | 0.01 | . | . | . | 0.01 | . | . | . | . | . | . | . | 40 mm Ø x 20 mm | | | |
| SUS 4/29 | <0.005 | . | . | . | . | . | . | . | <0.005 | . | . | . | . | 60 mm x 35 mm x 18 mm | | | |
| MBH SUS-CFE8 | . | . | . | . | 0.016 | . | . | . | . | . | . | . | . | 40 mm Ø x 15 mm | | | |
| R G 14 | . | 0.01 | . | . | . | 0.01 | . | . | . | . | . | . | . | ~40 mm Ø x 20 mm | | | |
| R G 13 | . | 0.006 | . | . | 0.01 | . | . | . | . | . | . | . | . | 40 mm Ø x 20 mm | | | |
| R N 15 | . | 0.01 | . | . | . | . | . | . | 0.03 | . | . | . | . | 40 mm Ø x 30 mm | | | |
| SUS 7/8 | . | 0.004 | <0.001 | . | . | . | . | . | . | . | . | . | . | 60 mm x 35 mm x 18 mm | | | |
| BS DNR-2 | . | . | . | . | <0.1 | Fe: [73.3] | . | <0.1 | . | . | . | . | . | 33 mm Ø x 21 mm | | | |
| BS DNR-1 | . | . | . | . | <0.1 | Fe: [73.5] | . | <0.1 | . | . | . | . | . | 33 mm Ø x 21 mm | | | |
| NCS AH11354a | . | 0.055 | . | . | 0.094 | (0.0013) | . | . | . | . | . | . | . | 31 mm Ø x 24 mm | | | |
| R C 15 | . | . | . | . | . | . | . | . | . | . | . | . | . | ~40 mm Ø x 20 mm | | | |
| MBH SUS-CFE7 | . | . | . | . | 0.011 | . | . | . | . | . | . | . | . | 40 mm Ø x 15 mm | | | |
| C Fe 4 | . | . | . | . | 0.02 | . | 0.047 | <0.02 | . | . | . | . | . | 40 mm Ø x 40 mm | | | |

CAST IRON SETTING-UP SET

| typical analysis | | available in SET/6 only | | | | | | | | 34 mm Ø x 5 mm |
|------------------|------|-------------------------|-------|-------|------|------|------|------|-------|----------------|
| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | |
| KTC-9 B1 | 2.40 | 0.04 | 0.005 | 0.11 | 3.03 | 0.04 | 1.03 | 0.99 | 0.049 | |
| KTC-9 B2 | 2.61 | 0.23 | 0.024 | 0.082 | 2.69 | 0.20 | 0.81 | 0.81 | 0.20 | |
| KTC-9 B3 | 3.05 | 0.37 | 0.049 | 0.059 | 2.28 | 0.40 | 0.60 | 0.62 | 0.43 | |
| KTC-9 B4 | 3.36 | 0.55 | 0.069 | 0.039 | 1.91 | 0.61 | 0.41 | 0.42 | 0.62 | |
| KTC-9 B5 | 3.70 | 0.83 | 0.094 | 0.021 | 1.49 | 0.82 | 0.21 | 0.21 | 0.83 | |
| KTC-9 B6 | 4.08 | 0.99 | 0.12 | 0.003 | 0.94 | 1.01 | 0.05 | 0.06 | 1.06 | |

DUCTILE IRON SETTING-UP SET

| sold in set/5 only | | typical analysis | | | | | 45 mm Ø x 5 mm |
|--------------------|------|------------------|-----|-------|-------|-----|----------------|
| Number | Mg | C | Mn | P | S | Si | |
| KTC-10 M-1 | 0.05 | 3.4 | 0.1 | 0.015 | 0.002 | 2.5 | |
| KTC-10 M-2 | 0.04 | 3.4 | 0.1 | 0.015 | 0.002 | 2.5 | |
| KTC-10 M-3 | 0.03 | 3.4 | 0.1 | 0.015 | 0.002 | 2.5 | |
| KTC-10 M-4 | 0.02 | 3.4 | 0.1 | 0.015 | 0.002 | 2.5 | |
| KTC-10 M-5 | 0.01 | 3.4 | 0.1 | 0.015 | 0.002 | 2.5 | |

CAST IRON SETTING-UP SETS

typical analysis set KTC-13/1 8 pcs (3 pcs A and B 34mm Ø x 5mm, 1 each C 35mm Ø x 10mm) set KTC-14 10 pcs (2 pcs D, 4 pcs E and F) 34mm Ø x 5mm

| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Al | B | Bi | Ce | Mg | Sb | Sn | Ti | V | Zn |
|--------------|-----|------|-------|-------|-----|-------|------|------|-------|-------|-------|-------|-------|--------|------|-------|-------|-------|-------|
| KTC-13/2 A | 3.5 | 0.10 | <0.02 | <0.01 | 2.5 | . | . | . | . | . | . | . | . | 0.055 | . | . | <0.01 | . | . |
| KTC-13/2 B | 2.1 | 0.05 | 0.70 | 0.06 | 3.0 | 0.55 | 0.01 | 0.50 | 0.3 | <0.01 | 0.10 | <0.01 | <0.01 | <0.001 | 0.20 | 0.30 | . | <0.01 | <0.01 |
| KTC-13/2 C-1 | 0.2 | 0.92 | <0.01 | <0.01 | 0.6 | <0.01 | 0.52 | 0.01 | <0.01 | 0.08 | <0.01 | 0.02 | 0.13 | . | 0.01 | <0.01 | 0.30 | 0.31 | 0.12 |
| KTC-13/2 C-2 | 0.2 | 0.85 | <0.01 | <0.01 | 0.6 | 0.01 | 0.49 | 0.01 | <0.01 | 0.10 | <0.01 | 0.02 | 0.16 | . | 0.01 | <0.01 | 0.28 | 0.32 | 0.12 |
| KTC-14 FCD-D | 3.4 | 0.1 | 0.015 | . | 2.5 | . | . | . | . | . | . | . | . | 0.05 | . | . | . | . | . |
| KTC-14 FCD-E | 2.4 | 0.05 | 0.005 | 0.10 | 3.0 | 0.05 | 1.0 | 1.0 | 0.05 | . | . | . | . | <0.01 | . | . | . | . | . |
| KTC-14 FCD-F | 4.0 | 1.0 | 0.12 | 0.005 | 1.0 | 1.0 | 0.05 | 0.05 | 1.0 | . | . | . | . | . | . | . | . | . | . |

CAST IRON SETTING-UP SETS

typical analysis available in sets only, as grouped

34 mm Ø x 5 mm

| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Al | Ce | Mg | Sn | Ti | V | Zn |
|-------------|------|------|-------|--------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| KTC-11 D-1 | 3.20 | 0.13 | 0.028 | 0.005 | 3.31 | 0.19 | . | . | 0.11 | 0.087 | 0.035 | 0.046 | . | . | 0.10 | 0.009 |
| KTC-11 D-2 | 3.47 | 0.50 | 0.016 | 0.001 | 2.99 | 0.04 | 0.41 | . | 0.22 | 0.074 | 0.011 | 0.053 | 0.004 | 0.10 | 0.20 | 0.002 |
| KTC-11 D-3 | 3.60 | 0.42 | 0.033 | 0.017 | 2.22 | . | 0.31 | . | 0.45 | 0.012 | . | 0.022 | 0.014 | 0.24 | . | 0.018 |
| KTC-11 D-4 | 3.19 | 0.71 | 0.020 | 0.006 | 2.71 | . | 0.34 | 0.21 | 0.021 | 0.053 | 0.008 | 0.048 | 0.44 | . | 0.25 | . |
| KTC-11 D-5 | 3.78 | 0.24 | 0.044 | 0.014 | 2.47 | . | . | 0.02 | 0.32 | 0.013 | . | 0.020 | . | 0.18 | . | 0.029 |
| KTC-11 D-6 | 3.93 | 0.37 | 0.071 | 0.033 | 1.64 | 0.31 | 0.10 | 0.31 | . | 0.007 | . | 0.015 | 0.054 | 0.047 | 0.15 | . |
| KTC-11 D-7 | 3.99 | 0.29 | 0.060 | 0.021 | 2.02 | 0.11 | 0.21 | . | 0.062 | 0.014 | . | 0.013 | . | 0.12 | 0.055 | 0.051 |
| KTC-11 D-8 | 2.98 | 0.20 | 0.050 | 0.037 | 2.87 | 0.52 | 0.01 | 0.29 | 0.008 | 0.11 | 0.064 | 0.021 | 0.30 | . | 0.009 | . |
| KTC-11 D-9 | 3.20 | 0.84 | 0.004 | 0.014 | 2.48 | 0.01 | . | 0.11 | 0.004 | 0.10 | 0.092 | 0.007 | 0.20 | . | 0.37 | . |
| KTC-11 D-10 | 2.79 | 0.02 | 0.008 | 0.011 | 2.40 | 0.40 | . | 0.40 | . | 0.029 | . | 0.003 | 0.089 | . | 0.003 | . |
| KTC-12 01 | 3.96 | 0.80 | 0.002 | 0.034 | 0.40 | 0.50 | . | 0.10 | 0.30 | 0.001 | . | . | . | . | . | 0.005 |
| KTC-12 02 | 3.87 | 0.63 | 0.009 | 0.018 | 0.84 | 0.42 | . | 0.21 | 0.24 | 0.013 | . | . | . | . | . | 0.002 |
| KTC-12 03 | 3.73 | 0.05 | 0.017 | 0.076 | 1.18 | 0.27 | . | 0.28 | 0.11 | 0.018 | . | . | . | . | . | 0.010 |
| KTC-12 04 | 3.52 | 0.50 | 0.30 | 0.061 | 1.59 | 0.20 | 0.02 | 0.43 | 0.42 | 0.033 | . | . | . | . | 0.010 | 0.024 |
| KTC-12 05 | 3.40 | 0.41 | 0.11 | 0.047 | 2.11 | 0.11 | 0.54 | 0.26 | 0.047 | 0.054 | 0.001 | . | 0.001 | . | 0.14 | 0.034 |
| KTC-12 06 | 3.35 | 0.35 | 0.076 | 0.026 | 2.22 | 0.01 | 0.42 | 0.35 | 0.002 | 0.029 | 0.015 | . | 0.41 | 0.013 | 0.048 | . |
| KTC-12 07 | 3.30 | 0.32 | 0.050 | 0.016 | 2.45 | . | 0.28 | 0.03 | . | 0.052 | 0.11 | . | 0.30 | 0.095 | 0.10 | . |
| KTC-12 08 | 3.04 | 0.26 | 0.030 | 0.010 | 2.71 | . | 0.20 | . | . | 0.059 | 0.067 | . | 0.20 | 0.059 | 0.20 | . |
| KTC-12 09 | 2.92 | 0.21 | 0.52 | 0.005 | 2.95 | . | 0.10 | . | . | 0.068 | 0.011 | . | 0.11 | 0.17 | 0.31 | . |
| KTC-12 10 | 2.50 | 0.10 | 0.68 | 0.0027 | 3.09 | 0.52 | 0.01 | . | . | 0.097 | 0.028 | . | 0.045 | 0.22 | 0.004 | . |

| Number | B | Bi | Ca | Pb | Sb |
|-------------|-------|-------|--------|-------|-------|
| KTC-11 D-1 | 0.028 | . | . | 0.001 | 0.062 |
| KTC-11 D-2 | 0.055 | . | . | . | 0.094 |
| KTC-11 D-3 | 0.010 | . | . | . | 0.024 |
| KTC-11 D-4 | 0.12 | . | 0.0018 | 0.004 | 0.009 |
| KTC-11 D-5 | 0.001 | 0.001 | 0.0005 | 0.007 | 0.16 |
| KTC-11 D-6 | . | 0.005 | 0.0005 | 0.016 | . |
| KTC-11 D-7 | . | 0.011 | . | 0.009 | . |
| KTC-11 D-8 | . | 0.005 | . | 0.009 | 0.21 |
| KTC-11 D-9 | . | . | 0.0030 | 0.037 | . |
| KTC-11 D-10 | 0.087 | 0.003 | 0.0035 | 0.026 | . |
| KTC-12 01 | 0.089 | . | . | . | 0.15 |
| KTC-12 02 | 0.077 | 0.010 | . | . | 0.10 |
| KTC-12 03 | 0.052 | 0.013 | . | . | 0.48 |
| KTC-12 04 | 0.029 | 0.004 | . | . | 0.008 |
| KTC-12 05 | 0.008 | 0.001 | . | 0.007 | 0.004 |
| KTC-12 06 | 0.001 | 0.001 | 0.0008 | 0.006 | . |
| KTC-12 07 | . | . | 0.0013 | 0.002 | . |
| KTC-12 08 | . | . | 0.0017 | 0.016 | . |
| KTC-12 09 | . | . | 0.0028 | 0.045 | . |
| KTC-12 10 | . | . | 0.0052 | 0.031 | . |

IRON SETTING-UP SAMPLES

typical analysis

C Fe O: no analysis issued

| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Al | Sol.Al | Co | Mo | N | Sn |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|
| R E 13 | 0.010 | 0.058 | <0.01 | <0.01 | <0.005 | 0.009 | 0.015 | 0.02 | <0.005 | . | <0.003 | <0.01 | . | 0.002 |
| C Fe 1 | 0.01 | 0.02 | <0.005 | <0.005 | <0.01 | 0.01 | 0.01 | 0.1 | 0.004 | . | <0.001 | <0.003 | 0.009 | <0.001 |
| MBH RE12-20 | 0.0053 | 0.0216 | 0.0035 | 0.0033 | 0.0036 | 0.0065 | 0.0042 | 0.0069 | 0.012 | . | 0.0016 | 0.0010 | 0.0018 | 0.0003 |
| SAG 0201 | 0.005 | 0.054 | 0.003 | 0.005 | 0.014 | 0.008 | 0.018 | 0.015 | <0.0005 | . | 0.003 | 0.002 | . | <0.002 |
| R E 12 | <0.0100 | <0.0040 | <0.0020 | <0.0020 | <0.0060 | <0.0010 | <0.0050 | <0.0010 | <0.0030 | . | <0.0010 | <0.0010 | <0.0020 | <0.0010 |
| NCS AH11351c | 0.0017 | 0.124 | 0.0079 | 0.0064 | 0.0051 | 0.0071 | 0.003 | 0.016 | 0.030 | . | . | 0.0011 | (0.001) | . |
| NCS AH11351a | 0.0013 | 0.16 | 0.0054 | 0.0013 | 0.0015 | 0.020 | 0.067 | 0.195 | <0.001 | . | 0.0072 | 0.013 | 0.0037 | 0.0015 |
| C Fe 0 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |

| Number | As | B | Ca | Fe | Mg | Nb | Pb | Sb | Ta | Ti | V | W | Zr | Units (mm) |
|---------------|---------|---------|----------|---------|---------|---------|---------|---------|-----------|----------|---------|----------|----------|---------------------|
| R E 13 | <0.003 | <0.0002 | <0.0005 | . | . | 0.002 | <0.001 | . | <0.004 | <0.001 | <0.001 | <0.002 | <0.001 | 40 Ø x 40 |
| C Fe 1 | <0.001 | <0.001 | <0.0001 | . | . | <0.002 | <0.001 | . | <0.001 | <0.001 | <0.002 | <0.002 | <0.001 | 40 Ø x 30, 40 or 50 |
| MBH RE12-20 * | 0.0021 | 0.00003 | <0.00001 | [99.92] | 0.00004 | 0.00003 | 0.00001 | 0.00028 | <0.000001 | 0.000022 | 0.00008 | 0.000022 | <0.00005 | 50 Ø x 40 |
| SAG 0201 | 0.002 | <0.0005 | <0.002 | . | . | <0.001 | <0.0001 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | 40 Ø x 40 |
| R E 12 | <0.0020 | <0.0010 | <0.0010 | . | . | <0.0020 | <0.0020 | . | . | <0.0010 | <0.0010 | <0.0010 | <0.0010 | 40 Ø x 40 |
| NCS AH11351c | . | . | . | . | . | . | . | . | . | 0.068 | . | . | . | 38 Ø x 40 |
| NCS AH11351a | 0.0058 | <0.0005 | (0.0003) | . | . | <0.001 | <0.0005 | . | . | 0.0005 | <0.001 | (0.002) | . | 38 Ø x 40 last |
| C Fe 0 | . | . | . | . | . | . | . | . | . | . | . | . | . | 40 Ø x 30 |

* MBH RE12-20 also contains Ga: 0.00047, O: 0.0115, and Zn: 0.00057

CARBON AND LOW ALLOY STEEL SETTING-UP SAMPLES

CONTINUED ON THE NEXT PAGE

typical analysis

| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Sn | Al | Co | N | Ti | V | W | |
|----------------|-------|-------|--------|--------|-------|--------|--------|-------|-------|---------|--------|--------|--------|--------|--------|--------|------|
| 1.2080 | 2.15 | 0.24 | 0.03 | 0.004 | 0.34 | . | 0.16 | 11.52 | 0.03 | . | 0.02 | . | <0.01 | 0.004 | 0.03 | . | |
| BS SU D2 | 1.52 | 0.29 | 0.024 | 0.0003 | 0.55 | 0.075 | 0.13 | 11.34 | 0.83 | 0.005 | 0.008 | 0.017 | . | 0.003 | 0.76 | 0.02 | |
| R H 18 | 1.2 | 0.3 | 0.02 | 0.01 | 0.35 | 0.08 | 0.2 | 4.3 | 3.5 | <0.01 | 0.04 | 9.2 | . | <0.01 | 2.9 | 9.2 | |
| KUT K3 | 1.03 | 0.46 | (0.02) | 0.010 | 0.32 | 0.09 | 0.18 | 1.63 | . | . | . | . | . | . | . | . | |
| BS SU E52100A | 1.02 | 0.38 | 0.012 | 0.005 | 0.27 | 0.085 | 0.063 | 1.51 | 0.020 | 0.005 | 0.02 | 0.007 | 0.007 | 0.001 | 0.004 | <0.05 | |
| BS SU E52100 | 1.00 | 0.40 | 0.016 | 0.012 | 0.24 | 0.090 | 0.046 | 1.47 | 0.011 | 0.006 | 0.017 | 0.005 | 0.0080 | 0.0014 | 0.0035 | <0.005 | |
| R N 13 | 1 | 1.8 | <0.005 | <0.005 | 0.02 | <0.005 | 3.1 | <0.01 | <0.01 | 0.05 | 0.4 | <0.005 | <0.01 | <0.001 | <0.005 | 0.07 | |
| R H 13 | 1 | 0.3 | 0.03 | <0.01 | 0.4 | 0.10 | 0.3 | 3.8 | 4.7 | <0.01 | 0.02 | 4 | . | 0.003 | 1.7 | 6 | |
| R N 16 | 0.99 | 1.79 | <0.01 | <0.01 | 0.01 | <0.01 | 3.00 | <0.01 | <0.01 | 0.05 | 0.39 | <0.01 | <0.01 | <0.001 | <0.01 | 0.07 | |
| R N 20 | 0.9 | 1.5 | 0.08 | 0.1 | 1.1 | 0.5 | 3.0 | 3.2 | 0.9 | 0.09 | 0.4 | 0.8 | 0.015 | 0.1 | 0.5 | 0.45 | |
| RAM SUS-1 R | 0.9 | 1.1 | 0.02 | 0.0174 | 0.8 | 0.7 | 2.9 | 1.7 | 0.9 | . | . | 0.3 | . | . | 0.5 | 0.7 | |
| 1.3243 | 0.9 | 0.2 | 0.02 | <0.005 | 0.38 | 0.1 | 0.3 | 3.9 | 4.8 | . | 0.02 | 4.5 | . | <0.01 | 1.8 | 6.0 | |
| R Fe D | 0.9 | 0.2 | 0.01 | 0.01 | 1.0 | 0.06 | 0.1 | 2.9 | 1.2 | 0.01 | 0.1 | 0.3 | 0.02 | 0.09 | 0.06 | 0.05 | |
| R N 19 | 0.89 | 1.45 | 0.11 | 0.09 | 1.16 | 0.75 | 3.09 | 3.06 | 0.92 | 0.09 | 0.28 | 0.80 | (0.02) | 0.16 | 0.51 | 0.40 | |
| HRT FE2023-N-2 | 0.977 | 1.56 | 0.112 | 0.0672 | 1.11 | 0.619 | 2.82 | 3.38 | 0.919 | 0.120 | 0.425 | 0.778 | 0.0152 | 0.147 | 0.639 | 0.442 | |
| NCS AH21311 | 0.856 | 0.312 | 0.017 | 0.005 | 0.33 | 0.261 | 0.048 | 3.93 | 4.83 | . | . | 0.36 | 4.86 | . | 0.17 | 1.90 | 6.25 |
| BS SU LAS 14-2 | 0.78 | 0.43 | 0.019 | 0.029 | 1.47 | 0.070 | 1.58 | 0.19 | 0.047 | 0.013 | 0.048 | 0.033 | 0.007 | 0.026 | 0.023 | 0.024 | |
| NCS AH21313 | 0.75 | 0.16 | 0.017 | 0.002 | 0.282 | 0.137 | 0.041 | 4.20 | 0.10 | 0.045 | 0.010 | 0.010 | . | . | 1.17 | 17.99 | |
| BS SU TS-5A | 0.61 | 0.64 | 0.005 | 0.002 | 1.90 | 0.034 | 0.047 | 0.20 | 0.27 | 0.002 | 0.034 | 0.004 | 0.006 | 0.006 | 0.20 | 0.006 | |
| BS SU TS-5 | 0.59 | 0.63 | 0.007 | 0.002 | 1.89 | 0.034 | 0.047 | 0.20 | 0.27 | 0.002 | 0.034 | 0.004 | 0.007 | 0.006 | 0.20 | 0.005 | |
| KUT K4 | 0.52 | 0.84 | (0.02) | 0.025 | 0.46 | 0.28 | (0.1) | 1.24 | . | . | . | . | . | . | 0.20 | . | |
| KUT K6 | 0.51 | 0.79 | (0.02) | 0.026 | 0.30 | 0.26 | 1.72 | 0.96 | 0.37 | . | . | . | . | . | . | . | |
| IMZ S-04 | 0.5 | 0.8 | 0.03 | (0.2) | 0.2 | 0.19 | 0.53 | 4.3 | 6.5 | . | . | 10.6 | . | . | 1.5 | . | |
| BS 02H | 0.49 | 0.75 | 0.007 | 0.028 | 0.19 | 0.21 | 0.17 | 0.11 | 0.026 | 0.016 | <0.001 | 0.007 | . | <0.001 | 0.029 | <0.001 | |
| BS SU 4140 | 0.42 | 0.94 | 0.013 | 0.021 | 0.26 | 0.20 | 0.16 | 0.96 | 0.16 | 0.008 | 0.018 | 0.008 | <0.05 | <0.05 | 0.006 | . | |
| BS SU 4340 | 0.411 | 0.75 | 0.008 | 0.0008 | 0.25 | 0.13 | 1.8 | 0.87 | 0.26 | 0.008 | 0.032 | 0.013 | 0.01 | 0.002 | 0.003 | 0.003 | |
| BS SU 8740 | 0.41 | 0.92 | 0.014 | 0.014 | 0.24 | 0.14 | 0.44 | 0.51 | 0.225 | 0.007 | 0.019 | 0.012 | 0.0085 | . | . | . | |
| BS SU 300M | 0.41 | 0.74 | 0.005 | 0.0006 | 1.65 | 0.068 | 1.87 | 0.79 | 0.40 | 0.005 | 0.041 | 0.012 | 0.002 | 0.003 | 0.078 | 0.001 | |
| 1.7225 | 0.4 | 0.8 | 0.01 | <0.01 | 0.3 | 0.02 | <0.001 | 1.0 | 0.2 | . | 0.02 | <0.01 | 0.01 | <0.002 | <0.005 | <0.005 | |
| BS SU41L40 | 0.39 | 0.90 | 0.01 | 0.02 | 0.26 | 0.13 | 0.25 | 0.97 | 0.20 | 0.01 | 0.02 | 0.008 | <0.05 | 0.002 | 0.002 | <0.05 | |
| BS SU 4942 | 0.39 | 0.61 | 0.009 | 0.002 | 0.25 | 0.06 | 0.13 | 0.94 | 0.59 | 0.006 | 0.014 | 0.007 | 0.006 | 0.002 | 0.27 | 0.002 | |
| C Fe 2 50mm | 0.32 | 0.44 | 0.048 | 0.011 | 0.32 | 0.31 | 0.83 | 0.59 | 0.28 | 0.033 | 0.01 | 0.03 | (0.02) | 0.015 | 0.3 | 0.044 | |
| BS SU 4130A | 0.301 | 0.539 | 0.0104 | 0.011 | 0.246 | 0.219 | 0.09 | 0.912 | 0.167 | 0.0096 | 0.024 | 0.008 | . | <0.001 | 0.0038 | 0.005 | |
| C Fe 2 | 0.29 | 0.69 | 0.042 | 0.013 | 0.45 | 0.36 | 0.83 | 0.59 | 0.31 | 0.033 | 0.015 | 0.05 | (0.02) | 0.045 | 0.3 | 0.038 | |
| BS 210 | 0.28 | 0.56 | 0.021 | 0.018 | 0.42 | 0.084 | 1.86 | 0.70 | 0.23 | (0.006) | 0.016 | . | . | . | 0.005 | . | |

| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Sn | Al | Co | N | Ti | V | W |
|---------------|-------|-------|--------|-------|--------|-------|-------|-------|---------|---------|--------|-------|--------|--------|---------|---------|
| C Fe 10 | 0.25 | 1.32 | 0.05 | ~0.15 | 0.30 | 0.26 | 0.45 | 0.48 | 0.37 | 0.082 | 0.004 | 0.004 | 0.003 | <0.001 | 0.27 | <0.005 |
| BS SU LF-1a | 0.234 | 0.74 | 0.013 | 0.020 | 0.21 | 0.032 | 0.022 | 0.012 | 0.013 | 0.002 | <0.005 | 0.005 | 0.006 | <0.005 | 0.002 | . |
| BS SU8620MOD | 0.233 | 0.71 | 0.014 | 0.026 | 0.17 | 0.18 | 0.38 | 0.44 | 0.15 | 0.008 | 0.022 | 0.007 | 0.0092 | <0.001 | 0.003 | <0.005 |
| BS SU LF-1 | 0.226 | 0.75 | 0.012 | 0.017 | 0.20 | 0.030 | 0.020 | 0.014 | 0.011 | 0.002 | <0.005 | 0.006 | 0.006 | <0.005 | 0.002 | 0.001 |
| BS SU 8620A | 0.22 | 0.81 | 0.008 | 0.028 | 0.26 | 0.16 | 0.62 | 0.54 | 0.20 | 0.009 | 0.022 | 0.006 | 0.009 | 0.0008 | 0.0053 | . |
| BS SU LF-2B | 0.21 | 1.05 | 0.007 | 0.010 | 0.23 | 0.19 | 0.088 | 0.16 | 0.029 | 0.007 | 0.022 | 0.006 | 0.008 | 0.0004 | 0.003 | <0.05 |
| BS SU 4620 | 0.21 | 0.58 | 0.010 | 0.023 | 0.23 | 0.14 | 1.69 | 0.15 | 0.26 | 0.008 | 0.022 | 0.009 | 0.0090 | 0.002 | 0.002 | . |
| 1.0580 | 0.2 | 1.3 | 0.01 | <0.01 | 0.2 | 0.08 | 0.04 | 0.05 | 0.01 | . | 0.03 | <0.01 | . | <0.001 | <0.005 | . |
| 1.7131 | 0.2 | 1.2 | 0.01 | 0.02 | 0.2 | 0.2 | 0.1 | 1.1 | 0.02 | . | 0.02 | 0.01 | . | 0.001 | 0.004 | . |
| BS SU 4820 | 0.197 | 0.640 | 0.008 | 0.014 | 0.190 | 0.210 | 3.27 | 0.165 | 0.201 | 0.010 | 0.030 | 0.009 | 0.0078 | 0.002 | 0.001 | 0.004 |
| BS 03D | 0.18 | 1.15 | 0.025 | 0.10 | 0.28 | 0.27 | 0.11 | 0.18 | 0.04 | 0.017 | <0.001 | 0.02 | 0.011 | . | . | . |
| BS SU 1018F | 0.18 | 0.80 | 0.017 | 0.017 | 0.31 | 0.27 | 0.12 | 0.17 | 0.040 | 0.011 | 0.004 | 0.008 | <0.05 | 0.001 | 0.002 | 0.004 |
| 1.5415 | 0.18 | 0.7 | 0.006 | 0.003 | 0.32 | 0.06 | 0.13 | 0.2 | 0.25 | . | 0.04 | 0.004 | . | <0.002 | <0.01 | . |
| IMZ S-07 | 0.18 | 0.23 | 0.06 | 0.1 | 1.7 | 0.17 | 2.0 | 2.1 | 0.12 | . | . | 0.02 | . | 0.02 | 0.15 | 2.3 |
| BS SU LF-3 | 0.17 | 0.83 | 0.008 | 0.011 | 0.22 | 0.07 | 3.25 | 0.11 | 0.017 | 0.005 | 0.021 | 0.010 | 0.0067 | 0.002 | 0.0024 | . |
| BS SU 11L17 | 0.168 | 1.14 | 0.011 | 0.116 | 0.009 | 0.032 | 0.046 | 0.081 | 0.018 | . | 0.002 | . | 0.003 | 0.002 | 0.001 | 0.005 |
| BS 213 | 0.152 | 0.68 | 0.015 | 0.005 | 0.49 | 0.059 | 2.68 | 0.37 | (0.008) | (0.002) | (0.04) | . | . | . | (0.004) | (0.006) |
| BS 207 | 0.15 | 0.51 | 0.017 | 0.013 | 0.39 | 0.033 | 0.017 | 0.37 | 0.005 | (0.003) | 0.007 | . | . | . | 0.002 | . |
| IMZ 501 | 0.15 | 0.32 | 0.019 | . | 0.40 | . | 0.11 | 13.24 | . | . | . | . | . | . | . | . |
| IMZ 503 | 0.14 | 0.47 | 0.029 | . | 0.37 | . | 0.19 | 11.43 | 0.62 | . | . | . | . | . | 0.30 | . |
| BS SU 9310 | 0.125 | 0.57 | 0.010 | 0.016 | 0.23 | 0.19 | 3.25 | 1.29 | 0.127 | 0.014 | 0.026 | 0.016 | 0.0102 | 0.002 | 0.005 | . |
| R Fe C | 0.12 | 1.37 | 0.05 | 0.06 | 0.33 | 0.67 | 3.10 | 0.4 | 0.09 | 0.04 | 0.005 | 0.06 | <0.01 | 0.01 | 0.50 | 0.50 |
| BS SU 9310A | 0.12 | 0.57 | 0.009 | 0.016 | 0.22 | 0.19 | 3.2 | 1.3 | 0.13 | 0.014 | 0.026 | 0.015 | 0.0096 | 0.003 | 0.005 | . |
| BS 214 | 0.10 | 0.65 | 0.019 | 0.012 | 0.34 | 0.10 | 3.70 | 0.21 | 0.02 | (0.005) | 0.025 | . | . | . | (0.004) | <0.008 |
| KUT K9 | 0.096 | 1.53 | (0.01) | 0.018 | 0.59 | 0.73 | 0.97 | 0.64 | 0.56 | . | (0.01) | . | . | 0.11 | 0.27 | . |
| IMZ S-11 | 0.095 | 0.35 | 0.01 | 0.015 | 1.8 | . | 0.66 | 6.5 | . | . | . | . | . | . | . | . |
| BS SU LAS13/3 | 0.092 | 1.64 | 0.069 | 0.007 | 0.15 | 0.46 | 0.17 | 1.13 | 0.81 | 0.067 | 0.27 | 0.23 | 0.023 | 0.13 | 0.41 | 0.12 |
| 1.0737 | 0.09 | 1.2 | 0.06 | 0.3 | <0.01 | 0.006 | 0.01 | 0.01 | 0.005 | . | <0.001 | 0.003 | . | . | . | . |
| C Fe 9 | 0.09 | 1.2 | 0.06 | 0.3 | <0.001 | 0.006 | 0.01 | 0.01 | 0.005 | . | 0.0005 | 0.003 | . | . | . | . |
| R N 14 | 0.05 | 0.7 | 0.09 | 0.08 | 1.7 | 0.7 | . | 2.9 | 0.5 | <0.01 | 0.025 | 0.4 | 0.02 | 0.06 | 0.5 | 0.35 |
| SUS A/8 | 0.03 | 0.16 | <0.005 | 0.01 | 0.01 | 0.01 | 0.04 | 0.02 | <0.005 | <0.005 | 0.04 | 0.02 | . | <0.005 | <0.005 | <0.005 |
| SAG 0203 | . | 1.12 | <0.008 | . | 0.16 | 0.020 | 0.030 | 1.00 | 0.01 | <0.001 | 0.030 | 0.004 | . | <0.001 | 0.003 | <0.001 |
| SAG 0204 | . | 0.80 | 0.016 | . | 0.29 | 0.020 | 0.040 | 0.18 | 0.040 | | | | | | | |

CARBON AND LOW ALLOY STEEL SETTING-UP SAMPLES - CONTINUED FROM PREVIOUS

typical analysis

| Number | As | B | Bi | Ca | Nb | O | Pb | Sb | Ta | Te | Zn | Zr | Units |
|----------------|--------|-----------|----------|---------|---------|--------|----------|-----------|-----------|-----------|------------|---------|----------------------------------|
| 1.2080 | | | | | 0.004 | | | | | | | | 40 mm Ø x 25 mm |
| BS SU D2 | 0.003 | 0.0002 | . | . | 0.004 | . | 0.0006 | 0.003 | . | . | . | . | 38 mm Ø x 40 mm |
| R H 18 | . | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x 40 mm |
| KUT K3 | . | . | . | . | . | . | . | . | . | . | . | . | 30-35 mm Ø x 39 mm |
| BS SU E52100A | 0.003 | . | . | <0.005 | 0.001 | <0.005 | <0.005 | <0.05 | . | . | . | 0.002 | 38 mm Ø x 40 mm Fe: [96.6] |
| BS SU E52100 | 0.004 | 0.0001 | . | <0.0005 | 0.0008 | 0.001 | <0.0005 | . | . | . | . | 0.0004 | 38 mm Ø x 40 mm Fe: [96.7] |
| R N 13 | <0.001 | <0.001 | <0.001 | <0.001 | <0.005 | . | <0.001 | 0.04 | <0.001 | <0.005 | . | 0.1 | 40 mm Ø x 40 mm |
| R H 13 | . | . | . | . | 0.02 | . | . | . | . | . | . | . | 40 mm Ø x 40 mm |
| R N 16 | <0.01 | <0.001 | <0.001 | <0.001 | <0.01 | . | <0.01 | 0.04 | <0.01 | <0.01 | . | 0.18 | 40 mm Ø x 40 mm |
| R N 20 | <0.01 | 0.009 | <0.001 | <0.001 | 0.5 | . | <0.001 | <0.01 | 0.3 | <0.001 | <0.001 | 0.06 | 40 mm Ø x 40 mm |
| RAM SUS-1 R | . | . | . | . | 0.6 | . | . | . | . | . | . | . | 50 mm Ø x 42 mm |
| 1.3243 | . | . | . | . | <0.01 | . | . | . | . | . | . | . | 40 mm Ø x 25 mm |
| R Fe D | <0.01 | <0.01 | <0.005 | 0.001 | 0.3 | . | <0.005 | 0.07 | 0.03 | 0.001 | . | 0.03 | 40 mm Ø x 40 mm |
| R N 19 | 0.06 | 0.006 | 0.008 | . | 0.42 | . | 0.01 | 0.02 | 0.28 | 0.01 | 0.01 | 0.05 | 40 mm Ø x 40 mm |
| HRT FE2023-N-2 | 0.110 | 0.0191 | 0.0128 | 0.0015 | 0.932 | . | 0.0346 | 0.096 | 0.125 | 0.0241 | . | 0.0948 | 37 mm Ø x 40 mm (RM) |
| NCS AH21311 | . | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x 40 mm |
| BS SU LAS 14-2 | 0.011 | 0.004 | <0.05 | 0.002 | 0.016 | 0.004 | 0.014 | 0.021 | 0.007 | . | 0.003 | 0.008 | 37 mm Ø x 40 mm Fe: [95.1] |
| NCS AH21313 | 0.027 | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x 40 mm |
| BS SU TS-5A | 0.001 | Fe:[96.0] | H:<0.005 | . | <0.005 | <0.005 | . | . | . | . | . | . | 38 mm Ø x 40 mm |
| BS SU TS-5 | 0.001 | Fe:[96.0] | H:<0.005 | . | <0.005 | <0.005 | . | . | . | . | . | . | 38 mm Ø x 40 mm |
| KUT K4 | . | . | . | . | . | . | . | . | . | . | . | . | 30-35 mm Ø x 39 mm |
| KUT K6 | . | . | . | . | . | . | . | . | . | . | . | . | 30-35 mm Ø x 39 mm |
| IMZ S-04 | . | . | . | . | . | . | . | . | . | . | . | . | 43 mm Ø x ~35 mm |
| BS 02H | 0.006 | 0.0004 | . | 0.0012 | <0.001 | . | <0.001 | <0.001 | <0.001 | . | . | <0.001 | 38 mm Ø x 150 mm |
| BS SU 4140 | . | <0.005 | . | <0.005 | . | <0.05 | <0.05 | . | . | . | . | . | 38 mm Ø x 40 mm |
| BS SU 4340 | 0.005 | 0.0002 | . | 0.0002 | 0.004 | 0.0007 | 0.0001 | . | . | . | . | 0.002 | 38 mm Ø x 40 mm Fe: 95.5 |
| BS SU 8740 | . | . | . | . | . | 0.0016 | . | . | . | . | . | . | 38 mm Ø x 40 mm |
| BS SU 300M | 0.003 | <0.005 | . | 0.0002 | 0.003 | <0.005 | <0.005 | 0.002 | 0.002 | . | . | 0.001 | 38 mm Ø x 40 mm Fe: 93.9 |
| 1.7225 | . | . | . | . | <0.002 | . | . | . | . | . | . | . | 40 mm Ø x 25 mm |
| BS SU41L40 | <0.05 | <0.005 | . | <0.005 | <0.05 | <0.05 | 0.14 | . | . | . | . | <0.05 | 41 mm Ø x 40+ mm Fe: 96.6 |
| BS SU 4942 | 0.0009 | <0.0005 | . | <0.005 | 0.001 | 0.001 | <0.005 | . | . | . | . | <0.005 | 38 mm Ø x 40 mm Fe: [96.7] |
| C Fe 2 50mm | 0.053 | 0.0032 | . | 0.0006 | 0.015 | . | (0.0006) | 0.02 | 0.02 | . | . | . | 40 mm Ø x 50 mm |
| BS SU 4130A | 0.005 | <0.001 | . | <0.001 | 0.002 | . | <0.0005 | <0.01 | 0.009 | . | . | 0.001 | 38 mm Ø x 40 mm Fe: [97.4] |
| C Fe 2 | 0.045 | 0.0015 | . | <0.001 | 0.018 | . | (0.0009) | 0.005 | 0.03 | . | . | . | 40 mm Ø x 40 mm |
| BS 210 | . | . | . | . | 0.016 | . | . | . | . | . | . | . | 32 mm Ø x 17 mm last |
| Number | As | B | Bi | Ca | Nb | O | Pb | Sb | Ta | Te | Zn | Zr | Units |
| C Fe 10 | 0.003 | . | . | <0.0005 | 0.003 | . | 0.011 | . | . | . | . | . | 40 mm Ø x 40 mm |
| BS SU LF-1a | <0.005 | <0.005 | . | 0.002 | <0.005 | 0.012 | 0.001 | . | . | . | . | <0.005 | ~36 mm Ø x ~40 mm Fe: [98.69] |
| BS SU8620MOD | 0.005 | 0.0002 | . | 0.0007 | 0.001 | 0.0009 | . | Fe:[97.6] | Mg:0.0002 | . | . | <0.001 | 38 mm Ø x 40 or 150 mm |
| BS SU LF-1 | <0.005 | <0.005 | . | 0.002 | <0.005 | 0.010 | 0.001 | . | . | . | . | <0.005 | ~36 mm Ø x ~40 mm Fe: 98.71 |
| BS SU 8620A | 0.005 | 0.0003 | . | 0.0006 | 0.003 | 0.0019 | 0.0005 | . | . | . | Mg: 0.0002 | 0.0007 | 38 mm Ø x 40 mm Fe: 97.1 |
| BS SU LF-2B | 0.003 | 0.0002 | <0.05 | 0.0080 | <0.005 | 0.002 | <0.005 | 0.001 | 0.004 | . | . | 0.001 | 38 mm Ø x 40 or 150 mm Fe: 97.98 |
| BS SU 4620 | . | . | . | . | . | 0.002 | . | . | . | . | . | . | 44 mm Ø x 40 mm |
| 1.0580 | . | . | . | . | . | 0.03 | . | . | . | . | . | . | 40 mm Ø x 25 mm |
| 1.7131 | . | . | . | . | . | <0.002 | . | . | . | . | . | . | 40 mm Ø x 25 mm |
| BS SU 4820 | 0.006 | <0.0005 | . | 0.0003 | 0.003 | 0.0016 | <0.0005 | 0.003 | 0.006 | Mg:0.0004 | . | <0.0005 | 38 mm Ø x 40 mm Fe: [95.2] |
| BS 03D | . | . | . | . | . | . | . | . | . | . | . | . | 41 mm Ø x 83 or 150 mm last |
| BS SU 1018F | 0.004 | 0.0003 | . | <0.005 | 0.001 | <0.05 | . | 0.002 | . | . | . | 0.001 | 38 mm Ø x 150 mm Fe: [98.92] |
| 1.5415 | . | . | . | . | <0.01 | . | . | . | . | . | . | . | 40 mm Ø x 25 mm |
| IMZ S-07 | . | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x ~30 mm |
| BS SU LF-3 | . | . | . | . | . | 0.002 | . | . | . | . | . | . | 44 mm Ø x 40 mm |
| BS SU 11L17 | . | <0.0005 | . | <0.0005 | 0.002 | 0.016 | 0.27 | . | . | . | . | . | 41 mm Ø x 40 mm Fe: [98.1] |
| BS 213 | . | . | . | . | 0.013 | . | . | . | . | . | . | . | 32 mm Ø x 17 mm Tl: (0.002) |
| BS 207 | . | . | . | . | 0.024 | . | . | . | . | . | . | . | 32 mm Ø x 17 mm |
| IMZ 501 | . | . | . | . | . | . | . | . | . | . | . | . | 48 mm Ø x 25 mm |
| IMZ 503 | . | . | . | . | . | . | . | . | . | . | . | . | 48 mm Ø x 25 mm |
| BS SU 9310 | . | . | . | . | 0.006 | 0.002 | . | . | . | . | . | . | 38 mm Ø x 40 mm |
| R Fe C | 0.05 | <0.005 | 0.003 | <0.001 | 0.01 | . | 0.001 | 0.01 | 0.19 | 0.002 | 0.001 | <0.001 | 40 mm Ø x 40 mm |
| BS SU 9310A | 0.004 | <0.005 | . | <0.005 | 0.008 | 0.0016 | <0.005 | . | . | . | . | <0.005 | 38 mm Ø x 40+ mm Fe: [94.1] |
| BS 214 | . | . | . | . | (0.007) | . | . | . | . | . | . | . | 32 mm Ø x 17 mm Tl: (0.002) |
| KUT K9 | . | . | . | . | (0.04) | . | . | . | . | . | . | . | 30-35 mm Ø x 18 mm |
| IMZ S-11 | . | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x ~25 mm |
| BS SU LAS 13/3 | 0.045 | 0.003 | 0.020 | 0.0006 | 0.14 | 0.005 | 0.004 | 0.009 | 0.052 | Ce:0.009 | 0.010 | 0.021 | 37 mm Ø x 40 mm Mg: 0.0002 |
| 1.0737 | . | . | . | . | . | . | 0.3 | . | . | . | . | . | 40 mm Ø x 25 mm |
| C Fe 9 | 0.003 | 0.0001 | . | . | . | . | 0.3 | 0.0005 | . | . | . | . | 40 mm Ø x 30, 40, or 50 mm |
| R N 14 | 0.06 | <0.01 | <0.01 | . | 0.5 | . | 0.01 | <0.01 | 0.1 | <0.01 | . | . | 40 mm Ø x 40 mm |
| SUS A/8 | . | . | . | . | <0.005 | . | . | . | . | . | . | . | 44 mm Ø x 75 mm last |
| SAG 0203 | 0.002 | <0.0005 | . | <0.001 | <0.001 | . | <0.001 | <0.001 | <0.001 | <0.001 | . | . | 32 mm Ø x 40 mm |
| SAG 0204 | 0.002 | <0.0005 | . | <0.001 | <0.001 | . | <0.001 | <0.001 | <0.001 | <0.001 | . | . | 40 mm Ø x 40 mm |
| SAG 0202 | 0.001 | . | . | . | . | . | . | . | . | . | . | . | 40 mm Ø x 40 mm |
| Number | As | B | Bi | Ca | Nb | O | Pb | Sb | Ta | Te | Zn | Zr | Units |

* NCS 28301 also contains Al(ins): 0.0049 and Al(sol): 0.0056.

LOW ALLOY STEEL SETTING-UP SETS WITH SOLUBLE/INSOLUBLE VALUES

| available in SETS only, as grouped | | | | | | | | | | | | | | | | Sol. = soluble | | Ins. = insoluble | | typical analysis | | | | 35 mm Ø x 20 mm | |
|------------------------------------|--------|------|-------|--------|-------|------|------|------|--------|-------|--------|--------|--------|--------|--------|----------------|--|------------------|--|------------------|--|--|--|-----------------|--|
| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Al | Sol.Al | Ins.Al | B | Ca | Sol.N | Ins.N | | | | | | | | | |
| KTC-1/5 01 | 0.0008 | 0.01 | 0.001 | <0.001 | <0.01 | 0.01 | 0.01 | 0.01 | <0.001 | . | <0.001 | <0.001 | 0.0002 | 0.0001 | . | . | | | | | | | | | |
| KTC-1/5 02 | 0.10 | 0.21 | 0.003 | 0.005 | 0.61 | 0.07 | 0.05 | 3.99 | 0.50 | . | 0.003 | 0.001 | . | . | . | . | | | | | | | | | |
| KTC-1/5 03 | 0.16 | 0.76 | 0.002 | 0.009 | 0.40 | 0.70 | 0.10 | 3.24 | 0.40 | . | 0.012 | <0.001 | . | . | . | . | | | | | | | | | |
| KTC-1/5 04 | 0.20 | 2.01 | 0.010 | 0.016 | 0.05 | 0.10 | 0.52 | 2.51 | 0.32 | . | 0.083 | <0.001 | . | . | . | . | | | | | | | | | |
| KTC-1/5 05 | 0.24 | 1.63 | 0.013 | <0.001 | 0.26 | 0.40 | 1.02 | 2.04 | 0.10 | . | 0.036 | 0.002 | . | 0.0002 | . | . | | | | | | | | | |
| KTC-1/5 06 | 0.36 | 1.33 | 0.049 | 0.001 | 0.36 | 0.50 | 1.53 | 1.54 | 0.20 | . | 0.020 | 0.001 | 0.0005 | 0.0006 | . | . | | | | | | | | | |
| KTC-1/5 07 | 0.51 | 1.02 | 0.040 | 0.029 | 0.30 | 0.20 | 2.05 | 1.02 | 0.62 | . | 0.029 | 0.001 | 0.0009 | 0.0018 | . | . | | | | | | | | | |
| KTC-1/5 08 | 0.66 | 0.50 | 0.031 | 0.023 | 0.16 | 0.31 | 2.54 | 0.51 | 1.01 | . | 0.056 | <0.001 | 0.0020 | 0.0030 | . | . | | | | | | | | | |
| KTC-1/5 09 | 0.80 | 0.31 | 0.019 | <0.001 | 0.20 | 0.15 | 3.26 | 0.10 | 0.84 | . | 0.064 | <0.001 | 0.0038 | 0.0031 | . | . | | | | | | | | | |
| KTC-1/5 10 | 1.05 | 0.10 | 0.006 | 0.022 | 0.10 | 0.07 | 4.06 | 0.07 | 0.050 | . | 0.090 | 0.001 | 0.0088 | . | . | . | | | | | | | | | |
| KTC-15 N-1 | 0.015 | 0.10 | 0.002 | 0.003 | 0.10 | . | . | 0.21 | . | 0.050 | . | . | . | . | 0.0012 | 0.0001 | | | | | | | | | |
| KTC-15 N-2 | 0.014 | 0.10 | 0.002 | 0.003 | 0.10 | . | . | 0.29 | . | 0.048 | . | . | . | . | 0.0048 | 0.0002 | | | | | | | | | |
| KTC-15 N-3 | 0.012 | 0.10 | 0.002 | 0.003 | 0.10 | . | . | 0.19 | . | 0.048 | . | . | . | . | 0.0076 | 0.0003 | | | | | | | | | |
| KTC-15 N-4 | 0.012 | 0.10 | 0.003 | 0.004 | 0.10 | . | . | 0.20 | . | 0.048 | . | . | . | . | 0.0110 | 0.0002 | | | | | | | | | |
| KTC-15 N-5 | 0.012 | 0.11 | 0.003 | 0.004 | 0.10 | . | . | 0.41 | . | 0.050 | . | . | . | . | 0.0194 | 0.0008 | | | | | | | | | |

| Number | As | Co | Nb | Sn | Ti | V | W |
|------------|--------|--------|-------|-------|-------|-------|-------|
| KTC-1/5 01 | <0.001 | <0.001 | 0.001 | 0.001 | 0.001 | 0.001 | <0.01 |
| KTC-1/5 02 | 0.010 | 0.010 | 0.10 | 0.062 | 0.021 | 0.40 | . |
| KTC-1/5 03 | 0.010 | 0.15 | 0.069 | 0.042 | 0.10 | 0.022 | . |
| KTC-1/5 04 | 0.021 | 0.050 | 0.019 | 0.021 | 0.31 | . | . |
| KTC-1/5 05 | 0.044 | 0.10 | 0.040 | 0.010 | 0.011 | 0.31 | . |
| KTC-1/5 06 | 0.062 | 0.20 | 0.010 | . | 0.054 | 0.052 | . |
| KTC-1/5 07 | . | . | . | . | 0.20 | 0.11 | 0.05 |
| KTC-1/5 08 | . | . | . | . | 0.16 | 0.15 | 0.12 |
| KTC-1/5 09 | . | . | . | . | . | 0.21 | 0.22 |
| KTC-1/5 10 | . | . | . | . | . | 0.50 | 0.15 |
| KTC-15 N-1 | . | . | . | . | . | . | . |
| KTC-15 N-2 | . | . | . | . | . | . | . |
| KTC-15 N-3 | . | . | . | . | . | . | . |
| KTC-15 N-4 | . | . | . | . | . | . | . |
| KTC-15 N-5 | . | . | . | . | . | . | . |

LOW ALLOY STEEL SETTING-UP SET

| SOLD AS SET/3 ONLY | | | | | | | | | | | | | | | | typical analysis | | | | formerly known as set ST A-C | | | | 35 mm Ø x 20 mm | |
|--------------------|------|------|-------|-------|------|------|------|------|------|-------|--------|--------|------|------|------|------------------|-------|--------|--------|------------------------------|--|--|--|-----------------|--|
| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Sn | Sol.Al | Ins.Al | Nb | Ti | V | W | As | B | Ca | Co | | | | | |
| KTC-2 A | 1.00 | 0.01 | 0.002 | 0.001 | 0.05 | 0.11 | 4.09 | . | . | . | 0.086 | <0.001 | 0.10 | 0.36 | 0.03 | 0.19 | . | . | . | . | | | | | |
| KTC-2 B | 0.01 | 0.52 | 0.045 | . | 0.57 | 0.69 | 0.50 | 3.98 | 0.20 | 0.093 | . | . | 0.03 | . | . | . | 0.050 | 0.0085 | 0.0035 | 0.01 | | | | | |
| KTC-2 C | 0.11 | 1.96 | . | 0.028 | . | . | . | 0.50 | 1.00 | . | 0.019 | 0.001 | . | 0.50 | . | . | . | . | . | 0.20 | | | | | |

STAINLESS STEEL SETTING-UP SAMPLE SETS

| available in SETS only, as grouped | | | | | | | | | | | | | | | | Sol. = soluble | | Ins. = insoluble | | typical analysis | | | | 35 mm Ø x 20 mm | |
|------------------------------------|-------|------|-------|--------|------|-------|-------|-------|-------|------------|--------|--------|-------|--------|----------|----------------|---------|------------------|--|------------------|--|--|--|-----------------|--|
| Number | C | Mn | P | S | Si | Cu | Ni | Cr | Mo | Sol.Al | Ins.Al | As | Co | Nb | Ti | Pb | Ta | | | | | | | | |
| KTC-3/1 21 | 0.13 | 0.40 | 0.003 | 0.024 | 0.18 | . | 4.03 | 27.02 | . | . | . | . | 0.003 | . | 0.003 | . | . | | | | | | | | |
| KTC-3/1 22 | 0.058 | 0.62 | 0.029 | 0.005 | 0.43 | . | 19.73 | 24.90 | . | 0.073 | 0.003 | 0.001 | . | . | . | . | . | | | | | | | | |
| KTC-3/1 23 | 0.11 | 1.60 | 0.005 | 0.021 | 0.82 | 0.048 | 9.99 | 22.17 | 1.01 | 0.045 | 0.003 | 0.104 | . | <0.01 | . | 0.005 | . | | | | | | | | |
| KTC-3/1 24 | 0.084 | 0.80 | 0.009 | 0.014 | 0.60 | 0.031 | 14.12 | 20.18 | 1.46 | 0.006 | 0.004 | 0.050 | . | . | . | 0.018 | . | | | | | | | | |
| KTC-3/1 25 | 0.027 | 1.42 | 0.010 | 0.021 | 1.43 | 0.011 | 8.05 | 18.32 | 2.49 | 0.001 | 0.001 | 0.012 | 0.050 | . | . | 0.044 | . | | | | | | | | |
| KTC-3/1 26 | 0.044 | 1.19 | 0.021 | 0.008 | 1.01 | . | 17.62 | 16.18 | 0.49 | 0.004 | 0.002 | . | 0.21 | 0.29 | 0.075 | . | 0.40 | | | | | | | | |
| KTC-3/1 27 | 0.057 | 1.00 | 0.019 | 0.011 | 1.19 | . | 15.74 | 13.39 | 0.008 | 0.016 | 0.002 | . | 0.014 | 1.53 | 0.24 | . | 0.24 | | | | | | | | |
| KTC-3/1 28 | 0.011 | 0.22 | 0.036 | 0.003 | 0.10 | . | 29.79 | 10.06 | . | 0.019 | <0.001 | . | . | 0.072 | 0.45 | . | 0.054 | | | | | | | | |
| ST I | 0.26 | 0.21 | 0.008 | 0.024 | 0.19 | 0.01 | 0.01 | 26.78 | 0.046 | 0.002 | 0.004 | <0.001 | 0.003 | 0.013 | 0.010 | CLEARANCE SALE | . | | | | | | | | |
| ST H | 0.088 | 0.47 | 0.009 | 0.010 | 0.50 | 0.04 | 0.57 | 17.95 | 0.49 | 0.031 | 0.005 | 0.011 | 0.054 | 0.094 | 0.094 | CLEARANCE SALE | . | | | | | | | | |
| ST G | 0.031 | 1.37 | 0.029 | 0.005 | 1.26 | 0.19 | 3.87 | 11.85 | 1.14 | 0.086 | 0.005 | 0.075 | 0.19 | 0.98 | 0.30 | CLEARANCE SALE | . | | | | | | | | |
| KTC-5 31 | 0.068 | 0.51 | 0.023 | 0.005 | 1.24 | 0.19 | 3.91 | 11.23 | 0.71 | 0.10 | 0.003 | 0.10 | 0.19 | 0.90 | 0.31 | . | . | | | | | | | | |
| KTC-5 32 | 0.040 | 1.16 | 0.030 | 0.007 | 0.52 | 0.01 | 2.56 | 12.71 | 1.01 | 0.013 | 0.004 | 0.008 | 0.014 | 0.082 | 0.051 | . | . | | | | | | | | |
| KTC-5 33 | 0.044 | 0.30 | 0.008 | 0.022 | 0.32 | 0.10 | 1.03 | 15.12 | 1.19 | 0.031 | 0.004 | 0.001 | 0.10 | 0.30 | 0.007 | . | . | | | | | | | | |
| KTC-5 34 | 0.084 | 0.99 | 0.025 | 0.004 | 0.78 | 0.04 | 0.48 | 16.99 | 0.48 | 0.045 | 0.006 | 0.009 | 0.051 | 0.083 | 0.098 | . | . | | | | | | | | |
| KTC-5 35 | 0.22 | 1.35 | 0.002 | 0.029 | 0.58 | <0.01 | 0.05 | 24.14 | 0.029 | 0.057 | 0.007 | <0.001 | 0.005 | 0.007 | 0.005 | . | . | | | | | | | | |
| KTC-5 36 | 0.15 | 0.43 | 0.014 | 0.009 | 0.14 | <0.01 | 0.11 | 22.31 | 0.043 | 0.001 | 0.008 | <0.001 | 0.003 | 0.001 | 0.005 | . | . | | | | | | | | |
| KTC-5 37 | 0.11 | 0.74 | 0.007 | 0.019 | 0.99 | <0.01 | 0.20 | 19.51 | 0.20 | 0.001 | 0.002 | <0.001 | 0.002 | <0.001 | 0.003 | . | . | | | | | | | | |
| KTC-5 38 | 0.30 | 0.19 | 0.010 | 0.013 | 0.40 | <0.01 | 0.01 | 25.52 | 0.004 | 0.001 | 0.002 | <0.001 | 0.002 | <0.001 | 0.003 | . | . | | | | | | | | |
| JSM M205 1 | 0.054 | 0.43 | 0.031 | 0.011 | 0.27 | 0.09 | 0.26 | 15.9 | 0.13 | . | . | . | 0.022 | . | N:0.0409 | . | V:0.052 | | | | | | | | |
| JSM M205 2 | 0.049 | 1.64 | 0.042 | 0.26 | 0.36 | 0.35 | 8.46 | 17.0 | 0.29 | Al: <0.005 | . | . | 0.17 | . | N:0.077 | . | V:0.049 | | | | | | | | |
| JSM M205 3 | 0.059 | 1.48 | 0.034 | 0.025 | 0.49 | 0.38 | 8.16 | 18.2 | 0.22 | Al: <0.005 | . | . | 0.21 | . | N:0.079 | . | V:0.099 | | | | | | | | |
| JSM M205 4 | 0.028 | 1.85 | 0.035 | 0.010 | 0.27 | 0.52 | 9.09 | 19.4 | 0.31 | Al: <0.005 | . | . | 1.9 | . | N:0.076 | . | V:0.10 | | | | | | | | |
| JSM M205 5 | 0.068 | 1.58 | 0.033 | 0.001 | 0.32 | 0.26 | 13.1 | 22.1 | 0.19 | Al: <0.005 | . | . | 0.27 | . | N:0.067 | . | V:0.080 | | | | | | | | |
| JSM M205 6 | 0.020 | 1.08 | 0.029 | <0.001 | 0.39 | 0.32 | 19.1 | 24.2 | 0.17 | Al: 0.010 | . | . | 0.35 | . | N:0.0281 | . | V:0.074 | | | | | | | | |
| JSM M205 7 | 0.057 | 1.31 | 0.034 | 0.026 | 0.47 | 0.30 | 10.2 | 16.6 | 2.04 | Al: <0.005 | . | . | 0.24 | . | N:0.0472 | . | V:0.079 | | | | | | | | |
| JSM M205 8 | 0.022 | 1.28 | 0.036 | 0.017 | 0.51 | 0.27 | 12.1 | 17.2 | 2.02 | Al: <0.005 | . | . | 0.17 | . | N:0.0432 | . | V:0.046 | | | | | | | | |

ALUMINUM IN XRF DISCS

typical analysis

30-40 mm Ø x 5 mm

| Number | Al ₂ O ₃ | As ₂ O ₃ | B ₂ O ₃ | BaO | Bi ₂ O ₃ | CaO | Fe ₂ O ₃ | GeO ₂ | K ₂ O | MgO | MoO ₃ | Na ₂ O | P ₂ O ₅ | PbO | Sb ₂ O ₃ | SiO ₂ | TiO ₂ | V ₂ O ₅ | WO ₃ |
|-----------|--------------------------------|--------------------------------|-------------------------------|-----|--------------------------------|-------|--------------------------------|------------------|------------------|------|------------------|-------------------|-------------------------------|------|--------------------------------|------------------|------------------|-------------------------------|-----------------|
| BR CH1 | 28.0 | 0.8 | 20.0 | 1.0 | 1.0 | . | 7.0 | 0.3 | 8.0 | . | . | 6.5 | 14.0 | . | . | 9.11 | 0.1 | 0.3 | 1.2 |
| SV C | 27.15 | 0.78 | 19.23 | 1.0 | 0.5 | 0.03 | 5.4 | 0.27 | 6.9 | . | 2.0 | 7.9 | 15.6 | . | . | 9.9 | 0.1 | 0.26 | 0.9 |
| BR PC 3 | 27.1 | 0.78 | 19.1 | 1.0 | 0.50 | 0.03 | 5.4 | 0.27 | 6.9 | . | 2.0 | 7.9 | 15.6 | . | . | 9.9 | 0.10 | 0.26 | 0.90 |
| BR CS1 | 27.1 | 0.78 | 19.23 | 1.0 | 0.5 | 0.03 | 5.4 | 0.27 | 6.9 | . | 2.0 | 7.9 | 15.6 | . | . | 11.3 | 0.1 | 0.26 | 0.05 |
| FLX CH1 | 27.0 | 0.6 | 14.30 | 1.1 | 1.1 | . | 6.9 | 0.3 | 8.7 | . | . | 8.2 | 16.1 | . | . | 10.9 | 0.13 | 0.3 | 1.3 |
| FLX CH2/1 | 24.83 | 2.68 | 8.76 | . | 0.82 | 15.57 | 0.79 | 1.86 | 0.30 | 7.99 | 1.03 | 10.11 | 4.87 | 3.20 | 2.16 | 8.40 | . | 1.54 | 0.45 |
| BR ACEM | 21.68 | . | 19.88 | . | . | 10.53 | 11.93 | . | 3.14 | 7.03 | . | 11.15 | 0.20 | 2.0 | 2.0 | 9.56 | 0.20 | . | . |
| FLX PR3 | 17.68 | . | . | . | . | 3.16 | . | . | . | 6.76 | . | . | 9.72 | . | . | 41.28 | 3.32 | . | . |
| FLX S7 | 15.46 | . | . | . | . | 10.1 | 11.52 | . | 3.14 | 4.71 | . | 3.38 | 0.28 | . | . | 48.06 | 2.36 | . | . |

| Number | CdO | Ce ₂ O ₃ | Cr ₂ O ₃ | La ₂ O ₃ | MnO | Mn ₂ O ₃ | Nb ₂ O ₅ | Nd ₂ O ₃ | NiO | Pr ₂ O ₃ | Rb ₂ O | SO ₃ | SrO | U ₃ O ₈ | ZrO ₂ |
|-----------|------|--------------------------------|--------------------------------|--------------------------------|-------|--------------------------------|--------------------------------|--------------------------------|------------------------|--------------------------------|-------------------|-----------------|------|-------------------------------|---------------------------------------|
| BR CH1 | 0.15 | . | . | . | 0.5 | . | 0.7 | 0.5 | 0.3 | 0.4 | 0.04 | . | . | 0.1 | . |
| SV C | 0.66 | . | . | . | 0.47 | . | 0.6 | 0.46 | 0.29 | 0.2 | . | . | . | . | last |
| BR PC 3 | 0.16 | . | . | . | 0.47 | . | 0.60 | 0.46 | 0.29 | 0.20 | . | . | . | . | . |
| BR CS1 | 0.16 | . | . | . | 0.47 | . | . | 0.46 | 0.29 | 0.2 | . | . | . | . | . |
| FLX CH1 | 0.2 | . | . | . | 0.5 | . | 0.8 | 0.5 | 0.4 | . | 0.06 | . | . | . | Pr ₆ O ₁₁ : 0.6 |
| FLX CH2/1 | . | 1.23 | . | 0.87 | . | . | . | 0.44 | Li ₂ O:1.20 | . | . | . | 0.55 | . | 0.33 |
| BR ACEM | . | . | . | . | . | 0.20 | . | . | . | . | . | 0.50 | . | . | . |
| FLX PR3 | . | . | 1.07 | . | . | . | . | . | 0.373 | . | . | . | . | . | . |
| FLX S7 | . | . | . | . | 0.234 | . | . | . | . | . | . | . | . | . | . |

ANTIMONY AND ARSENIC IN XRF DISC

typical analysis

40 mm Ø x 6 mm

| Number | As ₂ O ₃ | CaO | Co ₃ O ₄ | K ₂ O | MnO | MoO ₃ | Na ₂ O | Sb ₂ O ₃ | SiO ₂ |
|---------|--------------------------------|------|--------------------------------|------------------|------|------------------|-------------------|--------------------------------|------------------|
| FLX K04 | 2.12 | 14.8 | 0.52 | 2.18 | 6.81 | 2.9 | 5.22 | 2.12 | 29.9 |

BARIUM IN XRF DISCS

typical analysis

40 mm Ø x 5 mm

| Number | BaO | SiO ₂ | TiO ₂ | Al ₂ O ₃ | As ₂ O ₃ | B ₂ O ₃ | CaO | CeO ₂ | Cr ₂ O ₃ | CuO | Fe ₂ O ₃ | K ₂ O | MgO | Na ₂ O | PbO | Sb ₂ O ₃ | SrO | ZnO | ZrO ₂ | |
|---------|-------|------------------|------------------|--------------------------------|--------------------------------|-------------------------------|------|------------------|--------------------------------|-----|--------------------------------|------------------|-----|-------------------|-------|--------------------------------|------|------|------------------|------|
| BR M 1 | 62.2 | 0.2 | 33.5 | 1.3 | . | . | . | . | . | 2.8 | . | 0.02 | . | . | . | . | . | . | . | last |
| BR 4/1 | 24.70 | 35.00 | 2.33 | 0.70 | 0.31 | 4.25 | 4.77 | 0.0 | . | . | 0.02 | 1.85 | 0.0 | 1.08 | 10.70 | 0.20 | 0.22 | 4.98 | 0.0 | |
| BR BG18 | 11.5 | 78.4 | . | . | . | 3.5 | . | . | . | 3.6 | . | 1.0 | . | . | . | . | . | 1.0 | . | |

BORON IN XRF DISCS

typical analysis

30-40 mm Ø x 5 mm

| Number | B ₂ O ₃ | Al ₂ O ₃ | As ₂ O ₃ | CaO | CdO | Cr ₂ O ₃ | Fe ₂ O ₃ | K ₂ O | MgO | MnO | Na ₂ O | NiO | P ₂ O ₅ | PbO | SO ₃ | Sb ₂ O ₃ | SiO ₂ | SnO | SnO ₂ | TiO ₂ | ZnO | |
|------------|-------------------------------|--------------------------------|--------------------------------|-------|------|--------------------------------|--------------------------------|------------------|-------|------|-------------------|-------|-------------------------------|-------|-----------------|--------------------------------|------------------|-------|------------------|------------------|-------|---|
| BR AN1/1 | 61.43 | 22.6 | . | 0.03 | 1.04 | 0.68 | 0.1 | 0.83 | 0.6 | . | 1.7 | 0.78 | 0.4 | 0.92 | 0.5 | . | 3.0 | . | . | 0.6 | 1.2 | |
| BR DSH2 | 45.0 | 21.80 | . | 0.71 | . | 0.68 | 0.70 | 0.83 | 0.60 | . | 17.82 | 0.78 | 0.57 | 0.92 | 0.50 | . | 3.0 | . | . | 0.60 | 0.80 | |
| BR DSH1 | 41.82 | 21.82 | . | 0.71 | 2.0 | 0.68 | 0.70 | 0.83 | 0.60 | 2.0 | 17.0 | 0.78 | 0.57 | 0.92 | 0.50 | . | 3.0 | . | 0.79 | 0.60 | 0.80 | |
| FLX PR2 | 41.0 | . | . | . | . | . | . | 9.02 | 19.45 | . | . | . | . | 2.79 | . | . | 23.57 | . | 1.05 | . | . | |
| BR WR2 | 40.0 | 0.1 | . | 1.1 | . | 0.1 | 9.0 | 5.0 | 15.0 | 0.5 | 10.0 | . | 0.5 | . | 0.5 | 0.5 | 15.8 | . | . | 0.5 | . | |
| BR MM1 | 31.10 | 9.0 | . | 3.0 | . | . | 0.50 | 2.0 | 5.0 | 10.0 | 16.0 | 2.0 | 0.50 | 4.0 | 0.10 | 0.50 | 6.0 | . | 1.0 | 3.0 | 5.0 | |
| BR WR1 | 30.0 | 13.0 | . | 30.0 | . | . | 0.1 | 2.0 | 5.0 | 0.2 | 5.0 | . | 0.1 | . | 0.1 | 0.5 | 12.5 | . | . | . | . | |
| BR OS1 | 26.68 | 15.11 | 2.0 | 14.0 | . | . | 1.5 | 0.1 | 2.0 | 0.58 | 10.78 | . | 5.0 | . | . | 2.0 | 5.0 | . | . | . | 6.0 | |
| SV D | 25.2 | 15.3 | 2.0 | 15.0 | . | . | 0.5 | . | 9.0 | . | 10.0 | . | 5.0 | 1.0 | . | 2.0 | 3.0 | . | . | . | 5.0 | |
| BR DS1 | 23.62 | 20.0 | . | 14.40 | . | . | 0.58 | 0.09 | 7.4 | . | 9.6 | . | 5.8 | 1.7 | . | 1.85 | 6.6 | . | . | 0.03 | 3.7 | |
| BR AX3 | 23.28 | 18.89 | . | 7.0 | . | . | 12.0 | 3.14 | 7.03 | . | 11.15 | . | 0.2 | 4.0 | 0.5 | 2.0 | 9.56 | . | . | . | . | |
| BR PD 3 | 22.2 | 20.6 | 1.86 | 14.4 | . | . | 0.58 | 0.09 | 7.4 | . | 9.6 | . | 5.8 | 1.7 | . | 1.85 | 5.48 | . | . | 0.03 | 3.7 | |
| BR U 30 | 22.0 | 20.0 | . | . | . | . | . | . | 14.0 | . | 14.0 | . | . | . | . | . | . | . | . | . | . | . |
| BR WIE3/II | 21.77 | . | . | 8.0 | . | . | . | 10.0 | . | . | 15.0 | 12.73 | . | 10.77 | . | 2.0 | 7.28 | . | . | . | 12.45 | |
| BR KAl | 20.79 | 20.0 | . | 10.0 | . | . | 0.01 | 1.0 | 15.0 | . | 11.0 | . | 2.0 | . | 0.2 | 1.0 | 4.0 | . | . | . | 15.0 | |
| BR WIE3/I | 20.0 | 18.9 | . | 5.0 | . | . | 14.3 | 3.0 | . | 25.0 | 11.0 | . | . | . | . | 2.0 | 7.28 | 11.32 | . | . | . | |
| BR ARL2 | 20.0 | 12.0 | 0.5 | 0.5 | 2.0 | . | . | . | 3.0 | 25.0 | 12.0 | . | 1.0 | . | 0.5 | . | 19.4 | . | 0.5 | . | 2.0 | |

| Number | Ag ₂ O | BaO | Bi ₂ O ₃ | CuO | CeO ₂ | Ce ₂ O ₃ | Cl | Ga ₂ O ₃ | GeO ₂ | In ₂ O ₃ | La ₂ O ₃ | Nb ₂ O ₅ | MoO | MoO ₃ | Se | SrO | Ta ₂ O ₅ | Te ₂ O ₃ | V ₂ O ₅ | WO ₃ | ZrO ₂ | |
|------------|-------------------|------|--------------------------------|------|------------------|--------------------------------|------|--------------------------------|------------------|--------------------------------|--------------------------------|--------------------------------|-----|------------------|----|------|--------------------------------|--------------------------------|-------------------------------|-----------------|------------------|------|
| BR AN1/1 | . | 0.89 | 1.2 | 0.8 | . | . | 0.1 | . | . | . | . | . | . | . | . | . | . | . | . | 0.6 | . | . |
| BR DSH2 | . | 0.89 | 1.20 | 0.80 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.60 | . | . |
| BR DSH1 | 0.93 | 0.89 | . | 0.80 | . | . | 0.60 | . | . | . | . | . | . | 0.66 | . | . | . | . | . | . | . | . |
| FLX PR2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 3.76 | . |
| BR WR2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 1.5 |
| BR MM1 | . | . | 0.30 | . | . | . | . | . | . | . | . | . | . | . | . | 1.0 | . | . | . | . | . | . |
| BR WR1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR OS1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| SV D | . | . | 1.0 | . | 1.0 | . | . | . | 1.5 | . | 1.0 | . | . | 1.0 | . | . | . | . | 1.0 | . | . | 0.5 |
| BR DS1 | . | . | . | . | . | 0.84 | . | 0.46 | . | . | 0.88 | . | . | 0.87 | . | 0.13 | . | . | 0.86 | 0.05 | . | 0.34 |
| BR AX3 | . | . | . | 1.25 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR PD 3 | . | . | 0.18 | . | . | 0.84 | . | 0.46 | 0.41 | . | 0.88 | . | . | 0.87 | . | 0.13 | . | . | 0.86 | 0.32 | . | 0.34 |
| BR U 30 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR WIE3/II | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR KAl | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR WIE3/I | . | . | . | . | . | . | . | . | . | 1.21 | . | 1.43 | . | 1.43 | . | . | . | . | 1.8 | 1.26 | . | . |
| BR ARL2 | . | . | 0.5 | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.5 | 0.1 | . | . | . | 0.5 |

CARBONATE IN XRF DISC

typical analysis 38-40 mm Ø x 5-8 mm

| Number | CO ₂ | Al ₂ O ₃ | BaO | CaO | Cl | F | Fe ₂ O ₃ | MgO | Na ₂ O | P ₂ O ₅ | SO ₃ | SiO ₂ | SrO |
|---------|-----------------|--------------------------------|------|-------|-------|-------|--------------------------------|-------|-------------------|-------------------------------|-----------------|------------------|------------|
| FLX MB2 | Rem | 0.02 | 0.03 | 50.04 | . | . | . | 0.91 | 0.07 | . | . | 0.02 | 0.02 |
| ASO TUD | 47.51 | 0.207 | . | 30.28 | 0.013 | <0.01 | 0.023 | 21.76 | 0.046 | 0.012 | 0.023 | 0.093 | 0.004 last |

CALCIUM AND FLUORITE IN XRF DISCS

typical analysis 38-40 mm Ø x 5-8 mm

| Number | CaO | CaF ₂ | Al ₂ O ₃ | As ₂ O ₃ | B ₂ O ₃ | Cr ₂ O ₃ | F | Fe ₂ O ₃ | K ₂ O | MgO | MnO | Mn ₂ O ₃ | Na ₂ O | P ₂ O ₅ | SO ₃ | SiO ₂ | TiO ₂ |
|-----------|-------|------------------|--------------------------------|--------------------------------|-------------------------------|--------------------------------|------|--------------------------------|------------------|-------|------|--------------------------------|-------------------|-------------------------------|-----------------|------------------|------------------|
| FLX C1 | 44.11 | . | 10.09 | . | 23.8 | 0.07 | . | 2.27 | 0.76 | 1.51 | 0.16 | . | 0.80 | 0.17 | 0.53 | 16.59 | 0.14 |
| BR SP1/1 | 40.60 | . | 5.0 | . | 25.65 | . | . | 2.0 | 2.0 | 8.0 | . | . | 1.0 | . | 0.05 | 15.0 | . |
| BR BF2 | 37.0 | . | 10.0 | . | 3.43 | . | . | 1.0 | 0.4 | 8.0 | 0.77 | . | 2.0 | 0.2 | 36.0 | 1.0 | . |
| BR BCEM | 35.00 | . | 4.88 | . | 2.40 | . | . | 2.25 | 0.99 | 2.37 | . | 0.01 | 2.12 | 0.01 | 0.50 | 49.15 | 0.01 |
| BR U 33 | 34 | . | 0.06 | . | . | . | . | 0 | . | 22 | . | . | . | . | . | 0.046 | . |
| FLX C2 | 33.69 | . | 2.75 | . | 18.1 | 0.18 | 1.63 | 1.6 | 0.51 | 1.27 | 0.07 | . | 0.3 | 0.45 | 0.18 | 36.16 | 0.12 |
| FLX Z1 | 32.77 | . | 0.42 | . | 41.6 | . | 3.54 | 0.09 | 0.09 | 0.29 | 0.05 | . | 5.51 | 0.23 | 3.59 | 12.18 | 0.08 |
| BR SP2 | 30.0 | . | 9.0 | . | 19.50 | . | . | 5.0 | 2.0 | 6.0 | . | . | 2.0 | 0.30 | 25.0 | . | . |
| BR WR1 | 30.0 | . | 13.0 | . | 30.0 | 1.5 | . | 0.1 | 2.0 | 5.0 | 0.2 | . | 5.0 | 0.1 | 0.1 | 12.5 | . |
| FLX C3 | 29.36 | . | 11.16 | . | 31.0 | 0.09 | . | 1.87 | 0.733 | 2.87 | 0.16 | . | 2.22 | 0.58 | 0.40 | 19.76 | 0.19 |
| FLX SP1 | 28.61 | . | . | 3.53 | . | . | . | 2.72 | . | . | . | . | 14.84 | . | . | 45.57 | . |
| FLX SLAG2 | 27.8 | . | 6.0 | . | . | 0.28 | 1.05 | 5.68 | 0.14 | 10.8 | 2.53 | . | . | 1.59 | 1.61 | 31.4 | 1.41 |
| FLX D1 | 26.52 | . | 0.51 | . | 21.5 | . | . | 0.44 | 19.14 | 0.35 | . | . | . | 0.47 | 0.01 | 30.46 | 0.43 |
| FLX Z4 | 24.93 | . | 16.07 | 0.147 | . | . | 0.37 | 0.179 | 0.249 | 0.701 | . | . | . | . | . | 56.94 | 0.253 |
| BR SS3 | 24.0 | . | 17.6 | . | 16.6 | 0.2 | . | 10.5 | 0.4 | 4.1 | 3.5 | . | . | 0.9 | . | 21.4 | 0.8 |
| FLX Z5 | 22.67 | . | 18.16 | . | . | 0.19 | . | 9.39 | 0.41 | 4.07 | 2.7 | . | . | 0.89 | . | 25.63 | 0.73 |
| FLX SLAG1 | 19.12 | . | 1.02 | . | Rem | 0.09 | 0.91 | 0.46 | 0.55 | 2.04 | 0.07 | . | 0.57 | 0.54 | 0.51 | 41.95 | 0.49 |
| BR VA2/2 | 15.0 | . | 10.0 | . | 8.7 | . | . | 12.0 | 5.0 | 15.0 | 4.0 | . | 14.0 | 3.0 | 0.1 | 13.2 | . |
| FLX S10 | 12.15 | . | 4.25 | . | . | . | . | 0.285 | 0.223 | 2.29 | . | . | 9.09 | 0.104 | . | 65.94 | 0.116 |
| BR U 29 | . | 71.0 | . | . | . | 48 | . | . | . | . | . | . | . | . | . | . | . |
| BR WC | . | 20.00 | 25.00 | . | . | . | . | 0.80 | . | 5.00 | . | . | 10.00 | 0.15 | . | 38.10 | 0.80 |

| Number | BaO | Cl | Cr ₂ O ₃ | CuO | FeO | GeO ₂ | Li ₂ O | MoO ₃ | Nb ₂ O ₅ | NiO | PbO | Sb ₂ O ₃ | SrO | V ₂ O ₅ | ZnO | ZrO ₂ |
|-----------|------|------|--------------------------------|------|-----|------------------|-------------------|------------------|--------------------------------|------|------|--------------------------------|------|-------------------------------|------|------------------|
| FLX C1 | . | . | . | . | . | . | . | . | . | . | . | . | 0.17 | . | 0.07 | . |
| BR SP1/1 | . | 0.20 | . | . | . | . | . | . | . | . | . | 0.50 | . | . | . | . |
| BR BF2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR BCEM | . | . | . | . | . | . | . | . | . | . | . | 0.31 | . | . | . | . |
| BR U 33 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| FLX C2 | . | 0.15 | . | . | . | 3.9 | . | . | . | . | . | . | 0.1 | . | 0.08 | . |
| FLX Z1 | . | 1.15 | . | . | . | . | . | . | . | . | . | . | 0.01 | . | . | . |
| BR SP2 | . | 0.70 | . | . | . | . | . | . | . | . | . | 0.50 | . | . | . | . |
| BR WR1 | . | . | 1.5 | . | . | . | . | . | . | . | . | 0.5 | . | . | . | . |
| FLX C3 | . | 0.21 | . | . | . | 1.5 | . | . | . | . | . | . | 0.21 | . | 0.09 | . |
| FLX SP1 | . | . | . | . | . | . | 5.37 | . | . | . | . | . | . | 3.76 | . | . |
| FLX SLAG2 | 0.09 | . | . | 0.09 | . | 0.11 | Rem | 0.08 | 0.06 | 0.08 | . | . | . | 1.61 | 0.09 | 0.08 |
| FLX D1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| FLX Z4 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR SS3 | . | . | 0.2 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| FLX Z5 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| FLX SLAG1 | 0.11 | . | . | 0.09 | . | . | 5.0 | . | 0.11 | 0.09 | 0.09 | . | 0.09 | 0.49 | 0.09 | 0.10 |
| BR VA2/2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| FLX S10 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR U 29 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR WC | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.15 | . | . |

CLASSIC XRF DISC SET

available in set/6 or individually

typical analysis

40 mm Ø x 5 mm

| Number | Al ₂ O ₃ | As ₂ O ₃ | B ₂ O ₃ | BaO | CaO | CoO | CuO | F | Fe ₂ O ₃ | K ₂ O | MgO | MnO | Na ₂ O | NiO | P ₂ O ₅ | PbO | Sb ₂ O ₃ | SiO ₂ | TiO ₂ | V ₂ O ₅ | WO ₃ | ZnO |
|--------|--------------------------------|--------------------------------|-------------------------------|------|------|------|------|------|--------------------------------|------------------|------|------|-------------------|------|-------------------------------|------|--------------------------------|------------------|------------------|-------------------------------|-----------------|------|
| BR PA | 15.8 | . | 4.2 | 2.0 | 0.83 | . | . | 0.17 | 1.16 | 2.16 | 3.2 | 20.3 | 0.13 | . | 0.58 | . | . | 36.52 | 3.9 | 0.01 | . | 7.4 |
| BR PB | 6.75 | . | 0.04 | 21.3 | 1.62 | 0.25 | 1.4 | 12.2 | 0.04 | 0.23 | 0.89 | 0.09 | 0.79 | 2.1 | 4.4 | . | . | 42.54 | 1.2 | . | 1.85 | 0.45 |
| BR PC | 27.18 | 0.78 | 19.1 | 1.0 | 0.03 | . | . | 5.4 | 6.9 | . | 0.47 | 7.9 | 0.29 | 15.6 | . | . | . | 9.9 | 0.10 | 0.26 | 0.90 | . |
| BR PD | 20.22 | 1.86 | 22.2 | . | 14.3 | . | . | . | 0.58 | 0.09 | 7.3 | . | 9.6 | . | 1.7 | 1.85 | 5.48 | 0.03 | 0.86 | 0.32 | 3.7 | . |
| BR PE | 8.5 | 0.44 | 4.0 | 4.6 | 0.60 | 0.74 | 0.82 | 1.3 | 0.03 | 0.95 | . | 6.5 | 15.3 | 1.85 | 0.45 | 0.43 | 50.07 | 0.02 | . | . | 0.92 | . |
| BR PF | 3.85 | . | 2.0 | 0.34 | 2.84 | 0.25 | 1.8 | 5.0 | 0.07 | 18.3 | 0.82 | . | 1.2 | . | 0.05 | 0.86 | 56.31 | 0.04 | 1.7 | . | . | . |

| Number | Ag ₂ O | Ga ₂ O ₃ | Bi ₂ O ₃ | CdO | Ce ₂ O ₃ | Cr ₂ O ₃ | Cs ₂ O | GeO ₂ | In ₂ O ₃ | La ₂ O ₃ | MoO ₃ | Nb ₂ O ₅ | Nd ₂ O ₃ | Pr ₂ O ₃ | Rb ₂ O | Sm ₂ O ₃ | SnO ₂ | SrO | Ta ₂ O ₅ | TeO ₂ | Y ₂ O ₃ | ZrO ₂ |
|--------|-------------------|--------------------------------|--------------------------------|------|--------------------------------|--------------------------------|-------------------|------------------|--------------------------------|--------------------------------|------------------|--------------------------------|--------------------------------|--------------------------------|-------------------|--------------------------------|------------------|-------|--------------------------------|------------------|-------------------------------|------------------|
| BR PA | . | . | . | 0.39 | . | 0.15 | 0.04 | 0.08 | 0.04 | . | . | . | . | . | 0.04 | . | . | 0.71 | . | 0.04 | . | 0.15 |
| BR PB | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.92 | 0.008 | 0.85 | 0.08 | . | . |
| BR PC | . | . | 0.50 | 0.16 | . | . | . | 0.27 | . | . | 2.0 | 0.60 | 0.46 | 0.20 | . | . | . | . | . | . | . | . |
| BR PD | . | 0.46 | 0.18 | . | 0.84 | . | . | 0.41 | . | 0.88 | 0.87 | . | . | . | . | . | . | 0.13 | . | . | . | 0.34 |
| BR PE | 0.13 | . | 0.08 | . | 0.56 | . | . | 0.09 | 0.40 | . | 0.05 | . | . | . | . | . | 0.60 | 0.31 | 0.05 | 0.03 | 0.18 | . |
| BR PF | . | 0.09 | . | 0.96 | 0.39 | 0.27 | 0.13 | . | 0.26 | . | 0.38 | . | . | . | 0.16 | 0.18 | 0.20 | . | 0.36 | . | 0.45 | 0.74 |

LEAD IN XRF DISCS

typical analysis

40 mm Ø x 5 mm

| Number | PbO | Al ₂ O ₃ | As ₂ O ₃ | B ₂ O ₃ | BaO | CaO | CdO | Fe ₂ O ₃ | K ₂ O | MgO | MnO | Na ₂ O | P ₂ O ₅ | SO ₃ | SiO ₂ | ZnO |
|--------|------|--------------------------------|--------------------------------|-------------------------------|-----|------|-----|--------------------------------|------------------|------|------|-------------------|-------------------------------|-----------------|------------------|------|
| BR SF6 | 71.5 | . | 0.3 | . | . | . | . | 2.0 | . | . | . | 1.0 | . | . | 25.2 | . |
| BR SF1 | 62.2 | . | 0.5 | . | . | . | . | 3.2 | . | . | . | . | . | . | 34.1 | . |
| BR AK2 | 50.0 | . | . | . | 1.0 | 1.0 | 1.0 | . | 0.50 | . | . | 10.0 | 4.0 | 0.67 | 30.83 | 1.00 |
| BR VAI | 50.0 | 0.5 | . | 20.96 | . | 2.79 | . | 4.27 | 0.1 | 3.31 | 0.64 | 0.4 | 0.23 | 0.3 | 1.2 | 15.0 |
| BR H 1 | 23.5 | 4.00 | . | . | . | 3.8 | . | . | 8.7 | 2.6 | . | 6.2 | . | . | 51.1 | . |

NEODYMIUM IN XRF DISCS

typical analysis

| Number | Nd ₂ O ₃ | Al ₂ O ₃ | CaO | F | Fe ₂ O ₃ | K ₂ O | MgO | Na ₂ O | SO ₃ | Sb ₂ O ₃ | SiO ₂ | ZnO | Units |
|---------|--------------------------------|--------------------------------|-----|-----|--------------------------------|------------------|------|-------------------|-----------------|--------------------------------|------------------|-----|------------------|
| BR U 38 | 2.5 | 1.2 | 5.3 | 0.5 | 0.04 | 7.5 | 0.07 | 9.2 | 0.11 | 0.2 | 72.0 | 1.1 | 40 mm Ø x 5-8 mm |

PHOSPHORUS IN XRF DISCS

typical analysis

40 mm Ø x 5-6 mm

| Number | P ₂ O ₅ | Al ₂ O ₃ | B ₂ O ₃ | BaO | CaO | Cl | CoO | Cr ₂ O ₃ | F | Fe ₂ O ₃ | K ₂ O | MgO | MnO | MoO ₃ | Na ₂ O | NiO | SO ₃ | SiO ₂ | SrO | TiO ₂ | V ₂ O ₅ | ZnO | |
|---------|-------------------------------|--------------------------------|-------------------------------|------|------|------|------|--------------------------------|------|--------------------------------|------------------|------|------|------------------|-------------------|-------|-----------------|------------------|------|------------------|-------------------------------|------|---|
| BR UG5 | 67.88 | 6.0 | . | 11.0 | . | . | 8.99 | . | . | . | 3.7 | . | . | . | 10.0 | 2.43 | . | . | . | . | . | . | . |
| BR HPII | 30.0 | 25.0 | 20.0 | . | . | . | . | . | . | . | 5.0 | . | . | . | 10.0 | . | . | 10.0 | . | . | . | . | . |
| FLX R5 | 18.61 | 0.195 | . | 5.87 | 0.11 | 1.01 | . | . | . | . | 4.19 | . | 4.22 | 6.18 | 13.47 | . | . | 42.04 | . | . | 2.94 | 5.9 | |
| FLX PR3 | 9.72 | 17.68 | . | . | 3.16 | . | . | 1.07 | . | . | . | 6.76 | . | . | . | 0.373 | . | 41.28 | . | . | 3.32 | . | |
| FLX Z2 | 6.75 | 7.17 | 34.8 | . | 7.35 | 0.15 | . | 0.23 | 0.91 | 1.92 | 2.17 | 7.33 | 0.50 | . | 0.73 | . | 0.11 | 29.97 | 0.05 | 0.98 | . | 0.10 | |

ELEMENTS IN XRF DISCS

typical analysis listed in mass % all available individually

40 mm Ø x 6 mm

| Number | Ag | Al | As | B ₂ O ₃ | Ba | Ca | Cd | Cl | Co | Cr | Cu | Fe | K | Li ₂ O | Mg | Mn | Mo |
|--------------|---------|--------|------|-------------------------------|--------|--------|---------|---------|------|--------|---------|--------|--------|-------------------|--------|--------|--------|
| FLX OME 5 | <0.0001 | 0.0005 | . | . | 0.0005 | 0.0005 | <0.0001 | <0.0001 | . | 0.0005 | <0.0001 | 0.0005 | 0.0005 | . | 0.0005 | 0.0005 | 0.0005 |
| FLX OME 10 | <0.0001 | 0.0010 | . | . | 0.0010 | 0.0010 | 0.0010 | <0.0001 | . | 0.0010 | <0.0001 | 0.0010 | 0.0010 | . | 0.0010 | 0.0010 | 0.0010 |
| FLX OME 25 | 0.0025 | 0.0025 | . | . | 0.0025 | 0.0025 | 0.0025 | <0.0001 | . | 0.0025 | 0.0008 | 0.0025 | 0.0025 | . | 0.0025 | 0.0025 | 0.0025 |
| FLX OME 50 | 0.0050 | 0.0050 | . | . | 0.0050 | 0.0050 | 0.0050 | <0.0004 | . | 0.0050 | 0.0033 | 0.0050 | 0.0050 | . | 0.0050 | 0.0050 | 0.0050 |
| FLX OME 60 | 0.0044 | 0.0060 | . | . | 0.0060 | 0.0060 | 0.0055 | 0.0030 | . | 0.0060 | 0.0028 | 0.0060 | 0.0060 | . | 0.0060 | 0.0060 | 0.0060 |
| FLX OME 100 | 0.0100 | 0.0100 | . | . | 0.0100 | 0.0100 | 0.0100 | <0.0003 | . | 0.0100 | 0.0056 | 0.0100 | 0.0100 | . | 0.0100 | 0.0100 | 0.0100 |
| FLX OME 250 | 0.0250 | 0.0250 | . | . | 0.0250 | 0.0250 | 0.0250 | 0.0058 | . | 0.0250 | 0.0203 | 0.0250 | 0.0250 | . | 0.0250 | 0.0250 | 0.0250 |
| FLX OME 500 | 0.0500 | 0.0500 | . | . | 0.0500 | 0.0500 | 0.0500 | 0.0123 | . | 0.0500 | 0.0500 | 0.0500 | 0.0500 | . | 0.0500 | 0.0500 | 0.0500 |
| FLX OME 900 | 0.0900 | 0.0900 | . | . | 0.0900 | 0.0900 | 0.0900 | 0.0250 | . | 0.0900 | 0.0900 | 0.0900 | 0.0900 | . | 0.0900 | 0.0900 | 0.0900 |
| FLX OME 1000 | 0.0684 | 0.0886 | . | . | 0.0924 | 0.1010 | 0.0967 | 0.0190 | . | 0.0906 | 0.0925 | 0.0961 | 0.0864 | . | 0.0958 | 0.0934 | 0.1120 |
| FLX OME 2500 | 0.1960 | 0.2500 | . | . | 0.2500 | 0.2500 | 0.2500 | 0.0808 | . | 0.2500 | 0.2500 | 0.2500 | 0.2500 | . | 0.2500 | 0.2500 | 0.2500 |
| FLX O1 | 0.52 | 1.93 | . | . | 5.61 | 4.3 | 0.53 | 0.35 | . | 0.63 | 0.90 | 0.80 | 0.87 | . | 2.82 | 0.27 | 1.55 |
| FLX L2 | . | 5.88 | 0.12 | 37.2 | . | 0.17 | . | . | 0.56 | . | . | 0.25 | . | 8.0 | . | . | 2.59 |

| Number | Na | Ni | P | Pb | S | Si | SiO ₂ | Sn | Ti | V | W | Zn | Zr |
|--------------|--------|---------|--------|--------|---------|--------|------------------|---------|--------|--------|------|--------|--------|
| FLX OME 5 | 0.0005 | <0.0001 | 0.0005 | 0.0005 | 0.0004 | 0.0005 | . | <0.0001 | 0.0005 | 0.0005 | . | 0.0005 | 0.0005 |
| FLX OME 10 | 0.0010 | <0.0001 | 0.0010 | 0.0010 | <0.0001 | 0.0010 | . | <0.0001 | 0.0010 | 0.0010 | . | 0.0010 | 0.0010 |
| FLX OME 25 | 0.0025 | 0.0016 | 0.0025 | 0.0025 | <0.0001 | 0.0025 | . | <0.0008 | 0.0025 | 0.0025 | . | 0.0025 | 0.0025 |
| FLX OME 50 | 0.0050 | 0.0041 | 0.0050 | 0.0050 | 0.0024 | 0.0050 | . | 0.0029 | 0.0050 | 0.0050 | . | 0.0050 | 0.0050 |
| FLX OME 60 | 0.0060 | 0.0049 | 0.0060 | 0.0060 | 0.0029 | 0.0060 | . | 0.0022 | 0.0060 | 0.0060 | . | 0.0060 | 0.0060 |
| FLX OME 100 | 0.0100 | 0.0086 | 0.0100 | 0.0100 | 0.0057 | 0.0100 | . | 0.0057 | 0.0100 | 0.0100 | . | 0.0100 | 0.0100 |
| FLX OME 250 | 0.0250 | 0.0250 | 0.0250 | 0.0250 | 0.0215 | 0.0250 | . | 0.0250 | 0.0250 | 0.0250 | . | 0.0250 | 0.0250 |
| FLX OME 500 | 0.0500 | 0.0500 | 0.0500 | 0.0500 | 0.0366 | 0.0500 | . | 0.0500 | 0.0500 | 0.0500 | . | 0.0500 | 0.0500 |
| FLX OME 900 | 0.0900 | 0.0900 | 0.0900 | 0.0900 | 0.0790 | 0.0900 | . | 0.0900 | 0.0900 | 0.0900 | . | 0.0900 | 0.0900 |
| FLX OME 1000 | 0.0938 | 0.0995 | 0.0967 | 0.0908 | 0.0801 | 0.0926 | . | 0.1030 | 0.0939 | 0.0946 | . | 0.0921 | . |
| FLX OME 2500 | 0.2500 | 0.2500 | 0.2500 | 0.2500 | 0.2007 | 0.2500 | . | 0.2500 | 0.2500 | 0.2500 | . | 0.2500 | 0.2500 |
| FLX O1 | 5.26 | 0.92 | 0.58 | 2.79 | 0.07 | 24.75 | . | 0.90 | 0.66 | 0.63 | . | 3.51 | . |
| FLX L2 | 0.18 | 1.21 | 0.59 | 0.11 | 0.02 | . | 43.55 | . | . | 0.55 | 0.22 | . | . |

CRM GLASS XRF DISCS AND PLATES

analysis listed in mass %

typical analysis

| Number | Type | SiO ₂ | Al ₂ O ₃ | B ₂ O ₃ | BaO | CaO | FeO | Fe ₂ O ₃ | K ₂ O | MgO | Na ₂ O | SO ₃ | SrO | TiO ₂ | ZnO |
|----------|-------------------|------------------|--------------------------------|-------------------------------|------|------|-------|--------------------------------|------------------|-------|-------------------|-----------------|------|------------------|------|
| SRM 93a | Borosilicate | 80.8 | 2.28 | 12.56 | . | 0.01 | 0.016 | 0.028 (T.Fe) | 0.014 | 0.005 | 3.98 | . | . | 0.014 | . |
| SRM 1831 | Soda-Lime Sheet | 73.08 | 1.21 | . | . | 8.20 | 0.025 | 0.087 (T.Fe) | 0.33 | 3.51 | 13.32 | 0.25 | . | 0.019 | . |
| SRM 1830 | Soda-Lime Float | 73.07 | 0.12 | . | . | 8.56 | 0.032 | 0.121 (T.Fe) | 0.04 | 3.90 | 13.75 | 0.26 | . | 0.011 | . |
| SRM 620 | Soda-Lime Flat | 72.08 | 1.80 | . | . | 7.11 | . | 0.043 | 0.41 | 3.69 | 14.39 | 0.28 | . | 0.018 | . |
| SRM 1411 | Soft Borosilicate | 58.04 | 5.68 | 10.94 | 5.00 | 2.18 | . | 0.050 | 2.97 | 0.33 | 10.14 | . | 0.09 | 0.02 | 3.85 |

continued

| Number | As ₂ O ₃ | Cl | ZrO ₂ | Units |
|----------|--------------------------------|-------|------------------|--------------------------------|
| SRM 93a | . | 0.060 | 0.042 | 1 Disc 32 mm Ø x 6 mm |
| SRM 1831 | . | . | . | 3 Plates 37 mm x 37 mm x 3 mm |
| SRM 1830 | . | . | . | 3 Plates 32 mm x 32 mm x 6 mm |
| SRM 620 | 0.056 | . | . | 3 Plates 35 mm x 35 mm x 3 mm |
| SRM 1411 | . | . | . | 10 Plates 32 mm x 32 mm x 3 mm |

HIGH SILICA IN XRF DISCS

typical analysis

40 mm Ø x 5-6 mm

| Number | SiO ₂ | Al ₂ O ₃ | CaO | Cl | Fe ₂ O ₃ | K ₂ O | Na ₂ O | SO ₃ | TiO ₂ | |
|----------|------------------|--------------------------------|-------|------|--------------------------------|------------------|-------------------|-----------------|------------------|------|
| ASO TU1 | 99.99 | 0.005 | 0.005 | . | <0.01 | . | 0.005 | . | . | last |
| FLX Q0 | 99.99 | . | . | . | . | . | . | . | . | |
| BR K 1/3 | 99.5 | 0.17 | 0.02 | 0.05 | 0.02 | 0.07 | 0.10 | 0.04 | 0.02 | |

CRM URANIUM IN XRF DISCS

typical analysis listed in mg/kg

12 mm Ø x 5 mm

| Number | U |
|-----------|-----------|
| IRMM 540R | 15.0 last |

URANIUM IN XRF DISCS

typical analysis

30-40 mm Ø x 5 mm

| Number | UO ₃ | U ₃ O ₈ | Al ₂ O ₃ | As ₂ O ₃ | B ₂ O ₃ | BaO | CaO | CdO | CoO | Cr ₂ O ₃ | CuO | F | Fe ₂ O ₃ | K ₂ O | MgO | MnO | Na ₂ O | NiO | P ₂ O ₅ | SiO ₂ | Sb ₂ O ₃ | TiO ₂ | ZnO |
|---------|-----------------|-------------------------------|--------------------------------|--------------------------------|-------------------------------|------|------|------|------|--------------------------------|------|------|--------------------------------|------------------|------|------|-------------------|------|-------------------------------|------------------|--------------------------------|------------------|------|
| SV F | 1.0 | . | 2.0 | . | 3.0 | 0.3 | 3.0 | . | 0.5 | . | . | 4.0 | . | 29.3 | 1.0 | . | 1.0 | . | . | 58.23 | 1.0 | 1.0 | 0.2 |
| SV E | 0.5 | . | 1.5 | 0.5 | 6.0 | 3.0 | 5.0 | . | 1.0 | 4.0 | 1.0 | 0.8 | . | 2.5 | . | 5.0 | 15.0 | 0.5 | . | 50.9 | . | . | 2.0 |
| BR AS1 | 0.01 | . | 15.8 | 0.44 | 3.22 | . | 0.83 | 0.39 | . | 0.15 | . | 0.17 | 1.16 | 2.16 | 3.20 | 20.3 | 0.13 | . | 0.58 | 38.9 | . | 3.9 | 7.4 |
| BR U 26 | . | 1.0 | 1.5 | . | . | 0.1 | 6.5 | . | . | . | . | 1.0 | 0.07 | 3.0 | . | . | 13.3 | . | . | 69.98 | 0.25 | . | 1.0 |
| BR U 21 | . | 0.40 | 2.0 | . | 10 | . | 6.5 | 1.5 | 0.25 | 0.6 | 1 | . | 0.05 | 5.8 | 0.05 | 0.15 | 10.0 | 0.15 | . | 60.0 | 0.25 | . | . |
| BR EK01 | . | 0.10 | . | 0.13 | 0.74 | 2.24 | 4.96 | 0.02 | 0.38 | 1.17 | 0.63 | . | . | 6.82 | . | . | 8.54 | 0.64 | . | 67.05 | 0.44 | . | 3.73 |
| BR CH1 | . | 0.1 | 28.0 | 0.8 | 20.0 | 1.0 | . | 0.15 | . | . | . | . | 7.0 | 8.0 | . | 0.5 | 6.5 | 0.3 | 14.0 | 9.11 | . | 0.1 | . |

| Number | Bi ₂ O ₃ | CeO ₂ | Cs ₂ O | Ga ₂ O ₃ | GeO ₂ | In ₂ O ₃ | La ₂ O ₃ | MoO ₃ | Nb ₂ O ₅ | Nd ₂ O ₃ | PbO | Pr ₂ O ₃ | Rb ₂ O | SO ₃ | SeO ₂ | SnO | SrO | Ta ₂ O ₅ | TeO ₂ | ThO ₂ | V ₂ O ₅ | WO ₃ | ZrO ₂ |
|---------|--------------------------------|------------------|-------------------|--------------------------------|------------------|--------------------------------|--------------------------------|------------------|--------------------------------|--------------------------------|-----|--------------------------------|-------------------|-----------------|------------------|------|------|--------------------------------|------------------|------------------|-------------------------------|-----------------|------------------|
| SV F | . | 0.5 | . | 0.1 | . | . | 0.5 | . | 0.5 | 0.6 | . | 0.15 | . | . | . | 1.0 | 0.12 | . | . | . | . | 1.0 | last |
| SV E | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.5 | 0.3 | . | . | . | . | . | last |
| BR AS1 | . | . | 0.04 | . | 0.08 | 0.04 | . | . | . | . | 0.5 | 0.04 | . | . | . | 0.71 | . | 0.04 | 0.04 | 0.01 | 0.15 | . | |
| BR U 26 | . | 2.0 | . | . | . | . | . | . | . | . | . | . | . | 0.2 | 0.14 | . | . | . | . | . | . | . | |
| BR U 21 | . | 0.15 | . | . | . | . | . | . | . | . | . | . | . | 0.15 | 0.02 | . | . | . | . | . | . | . | |
| BR EK01 | . | . | . | . | . | . | . | 0.30 | . | 0.65 | . | 0.4 | 0.04 | . | . | 0.57 | . | . | . | . | 0.89 | . | |
| BR CH1 | 1.0 | . | . | 0.3 | . | . | . | 0.7 | 0.5 | . | . | . | . | . | . | . | . | . | . | . | 0.3 | 1.2 | . |

ZINC AND ZIRCONIUM IN XRF DISCS

typical analysis

40 mm Ø x 5-6 mm

| Number | ZnO | ZrO ₂ | SiO ₂ | Al ₂ O ₃ | B ₂ O ₃ | BaO | Bi ₂ O ₃ | CaO | Cr ₂ O ₃ | CdO | Co ₂ O ₃ | F | Fe ₂ O ₃ | K ₂ O | Li ₂ O | MgO | MnO ₂ | Na ₂ O | |
|---------|-------|------------------|------------------|--------------------------------|-------------------------------|------|--------------------------------|------|--------------------------------|-------|--------------------------------|------|--------------------------------|------------------|-------------------|-------|------------------|-------------------|-------|
| BR TL2 | . | 30 | 10 | 0.5 | 9.3 | . | . | . | . | . | . | . | 0.1 | 15 | 5 | . | . | . | 15 |
| BR N 1 | 80.2 | . | 0.2 | . | . | . | 4.5 | . | 1.6 | . | . | 1.9 | . | . | . | . | . | 0.7 | . |
| FLX F1 | 12.92 | . | 65.81 | 2.14 | . | . | . | 1.62 | . | 0.181 | . | 2.57 | 0.116 | 0.781 | . | . | . | . | 13.53 |
| FLX SP2 | 2.50 | 2.17 | 44.75 | . | 20.0 | 5.35 | . | . | . | 3.71 | . | . | . | . | . | 18.42 | . | . | . |

| Number | NiO | P ₂ O ₅ | PbO | Sb ₂ O ₃ | SO ₃ | TiO ₂ |
|---------|-----|-------------------------------|------|--------------------------------|-----------------|------------------|
| BR TL2 | . | 0.1 | 10 | . | . | 5 |
| BR N 1 | 0.7 | . | . | 9.3 | . | 0.9 |
| FLX F1 | . | . | . | . | 0.264 | . |
| FLX SP2 | . | . | 4.65 | . | . | . |

last of stock

| MULTI-ELEMENT XRF DISCS | | | | | | | | | | | | | | | | typical analysis | | 40 mm Ø x 5-6 mm | |
|-------------------------|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|------------------|--|
| Number | Ag ₂ O | Al ₂ O ₃ | As ₂ O ₃ | B ₂ O ₃ | BaO | Bi ₂ O ₃ | Br | CaO | CdO | CeO ₂ | Ce ₂ O ₃ | Cl | CoO | Co ₃ O ₄ | Cr ₂ O ₃ | Cs ₂ O | | | |
| BR AS1 | . | 15.8 | 0.05 | 3.22 | . | . | . | 0.83 | 0.39 | . | . | . | . | . | 0.15 | 0.04 | | | |
| BR CH3 | 0.5 | 15.0 | 0.5 | 5.0 | 5.0 | 0.08 | . | 0.6 | . | . | . | . | 1.0 | . | 0.6 | 0.05 | | | |
| FLX CH3 | 0.56 | 13.59 | 0.53 | . | 5.51 | 2.07 | . | 0.59 | . | . | . | . | . | 0.93 | 0.64 | 0.05 | | | |
| BR ES1 | 0.13 | 13.2 | 0.2 | 1.1 | 4.6 | 0.08 | . | 0.60 | . | . | . | . | 0.74 | . | 0.56 | . | | | |
| FLX B2 | . | 9.23 | . | Rem | . | . | . | 32.48 | . | . | . | . | . | . | . | . | | | |
| FLX B4 | . | 8.59 | . | Rem | . | . | . | 7.31 | . | . | . | . | . | . | . | . | | | |
| BR PE 3 | 0.13 | 8.5 | 0.44 | 4.0 | 4.6 | 0.08 | . | 0.60 | . | . | . | . | 0.74 | . | 0.56 | . | | | |
| FLX B1 | . | 7.34 | 0.57 | . | 0.10 | . | . | 17.37 | . | . | . | . | . | 1.72 | . | . | | | |
| FLX S6M | . | 6.14 | 0.15 | 6.9 | 1.57 | . | . | 4.87 | 0.28 | 0.37 | . | . | . | 0.52 | 0.31 | . | | | |
| FLX S5 | . | 4.11 | . | . | 0.84 | 2.26 | . | 4.6 | 0.339 | 0.409 | . | . | . | 0.418 | 0.427 | . | | | |
| FLX S13 | 0.27 | 3.95 | 0.18 | 8.8 | 1.20 | 2.17 | 0.21 | 5.21 | 0.42 | 0.46 | . | 0.42 | . | 0.45 | 0.47 | . | | | |
| BR PF 3 | . | 3.85 | . | 2.0 | 0.34 | . | . | 2.84 | 0.96 | . | 0.39 | . | 0.25 | . | 0.27 | 0.13 | | | |
| BR CH4 | . | 3.0 | . | 2.65 | 0.30 | . | . | 4.00 | 1.00 | . | 0.40 | . | 0.50 | . | 0.10 | 0.15 | | | |
| BR WIE2 | 0.54 | 1.89 | 0.66 | 5.0 | 2.0 | 0.56 | . | 3.0 | 0.57 | . | . | . | 1.27 | . | 1.46 | . | | | |
| FLX B3 | . | 0.37 | . | Rem | . | . | . | 5.73 | . | . | . | 0.09 | . | . | 0.29 | . | | | |
| BR WIE1/1 | 0.11 | 0.19 | 0.13 | 9.05 | 2.0 | 0.11 | . | 3.0 | 0.12 | . | . | . | 0.13 | . | 0.15 | . | | | |
| FLX B5 | . | . | . | Rem | . | . | . | 8.67 | . | . | . | . | . | . | . | . | | | |
| Number | CuO | Dy ₂ O ₃ | Er ₂ O ₃ | F | Fe ₂ O ₃ | Ga ₂ O ₃ | Gd ₂ O ₃ | GeO ₂ | HfO ₂ | In ₂ O ₃ | K ₂ O | La ₂ O ₃ | MgO | MnO | MnO ₂ | MoO ₃ | | | |
| BR AS1 | . | . | . | 0.17 | 1.16 | . | . | 0.08 | . | 0.04 | 2.16 | . | 3.20 | 20.3 | . | . | | | |
| BR CH3 | 0.3 | . | . | . | . | 1.0 | . | . | . | 0.1 | 2.0 | 0.3 | 0.1 | 12.0 | . | . | | | |
| FLX CH3 | 0.33 | . | . | . | . | 1.19 | . | . | . | 0.11 | 1.73 | 0.25 | 0.18 | 10.17 | . | . | | | |
| BR ES1 | 0.25 | . | . | 1.3 | 0.03 | . | . | . | . | 0.09 | 2.7 | 0.40 | . | 6.2 | . | . | | | |
| FLX B2 | . | . | . | . | 0.94 | . | . | . | . | . | 0.43 | . | 5.01 | 0.83 | . | . | | | |
| FLX B4 | . | . | . | . | 10.04 | . | . | . | . | . | 3.60 | . | 9.83 | 3.73 | . | . | | | |
| BR PE 3 | 0.82 | . | . | 1.3 | 0.03 | . | . | . | . | 0.09 | 0.95 | 0.40 | . | 6.5 | . | . | | | |
| FLX B1 | 0.10 | . | . | 1.16 | 9.48 | . | . | . | . | . | 0.40 | . | 10.32 | 0.88 | . | . | | | |
| FLX S6M | 0.39 | 0.19 | 0.18 | . | 0.47 | . | 0.17 | . | 0.40 | . | 3.27 | 0.38 | 1.43 | 0.15 | Li2O:1.5 | 0.47 | | | |
| FLX S5 | 0.412 | . | . | 0.89 | 0.478 | . | . | . | . | . | 3.95 | 0.426 | 1.68 | 0.382 | . | 0.43 | | | |
| FLX S13 | 0.42 | 0.27 | 0.21 | 1.21 | 0.45 | . | 0.26 | 0.09 | 0.29 | 0.25 | 4.76 | 0.42 | 1.88 | 0.43 | Li2O:1.8 | 0.25 | | | |
| BR PF 3 | 1.8 | . | . | 5.0 | 0.07 | 0.09 | . | . | (0.01) | 0.26 | 18.3 | . | 0.82 | . | . | . | | | |
| BR CH4 | 2.00 | . | . | . | 0.10 | 0.10 | . | . | . | 0.40 | 20.00 | . | 1.00 | . | . | 0.20 | | | |
| BR WIE2 | 2.5 | . | . | . | 2.86 | . | . | . | . | . | 5.0 | . | 1.66 | . | 3.16 | . | | | |
| FLX B3 | 0.27 | . | . | . | 0.30 | . | . | . | . | . | 7.11 | . | . | . | . | . | | | |
| BR WIE1/1 | 0.13 | . | . | . | 0.15 | . | . | . | . | 0.12 | 12.0 | . | 0.17 | . | 0.16 | 0.15 | | | |
| FLX B5 | . | . | . | . | . | . | . | . | . | . | 9.02 | . | . | . | . | . | | | |
| Number | Na ₂ O | Nb ₂ O ₅ | Nd ₂ O ₃ | NiO | P ₂ O ₅ | PbO | Pr ₂ O ₃ | Pr ₆ O ₁₁ | Rb ₂ O | S | SO ₃ | Sb ₂ O ₃ | Sc ₂ O ₃ | Se | SiO ₂ | Sm ₂ O ₃ | | | |
| BR AS1 | 0.13 | . | . | . | 0.58 | 0.5 | . | . | 0.04 | . | . | . | . | . | 38.9 | . | | | |
| BR CH3 | 16.0 | . | . | 2.0 | 0.6 | 0.5 | 0.15 | . | . | . | . | 0.4 | . | . | 31.83 | . | | | |
| FLX CH3 | 17.39 | . | . | 2.04 | 0.60 | 0.48 | . | 0.18 | . | . | . | 0.42 | . | . | 36.76 | . | | | |
| BR ES1 | 14.6 | 0.05 | . | 1.85 | . | 0.3 | . | . | . | . | . | 0.43 | . | . | 48.03 | . | | | |
| FLX B2 | . | . | . | . | 2.17 | . | . | . | . | . | 0.21 | . | . | . | 42.33 | . | | | |
| FLX B4 | 15.40 | . | . | . | 2.81 | . | . | . | . | . | 0.12 | . | . | . | 34.60 | . | | | |
| BR PE 3 | 15.3 | 0.05 | . | 1.85 | . | 0.45 | . | . | (0.01) | . | . | 0.43 | . | . | 50.07 | . | | | |
| FLX B1 | 0.56 | 0.60 | . | 0.80 | 2.16 | 4.55 | . | . | . | . | . | . | . | . | 33.80 | . | | | |
| FLX S6M | 9.16 | 0.90 | 0.29 | 0.48 | 0.70 | 1.83 | . | 0.22 | . | . | . | 0.22 | . | . | 47.26 | 0.12 | | | |
| FLX S5 | 10.04 | 0.615 | . | 0.444 | 0.453 | 2.64 | . | . | . | . | . | . | . | . | 54.36 | . | | | |
| FLX S13 | 7.74 | 0.28 | 0.36 | 0.49 | 0.55 | 1.81 | . | 0.27 | 0.10 | . | 0.47 | 0.16 | 0.09 | SeO2:0.01 | 45.13 | 0.26 | | | |
| BR PF 3 | 1.2 | 0.38 | . | . | . | 0.05 | . | . | 0.16 | (0.01) | . | 0.86 | . | . | 56.31 | 0.18 | | | |
| BR CH4 | 0.80 | 0.10 | . | . | . | 0.10 | . | . | 0.20 | . | . | 1.00 | . | . | 56.83 | . | | | |
| BR WIE2 | 14.0 | . | . | 2.55 | 1.15 | 2.15 | . | . | . | . | 1.25 | 0.6 | . | 0.5 | 38.95 | . | | | |
| FLX B3 | 9.66 | . | . | 0.24 | 0.47 | 0.25 | . | . | . | . | 0.48 | 0.58 | . | . | 64.18 | . | | | |
| BR WIE1/1 | 17.0 | 0.14 | . | 0.13 | 0.23 | 0.11 | . | . | . | . | 0.25 | 0.12 | . | 0.10 | 53.10 | . | | | |
| FLX B5 | 10.62 | . | . | 8.24 | . | 11.26 | . | . | . | . | . | 2.21 | . | . | 29.78 | . | | | |
| Number | SnO | SnO ₂ | SrO | Ta ₂ O ₅ | Te | TeO ₂ | ThO ₂ | TiO ₂ | UO ₃ | V ₂ O ₅ | WO ₃ | Y ₂ O ₃ | Yb ₂ O ₃ | ZnO | ZrO ₂ | | | | |
| BR AS1 | . | . | 0.71 | . | . | 0.04 | 0.04 | 3.9 | 0.01 | 0.01 | . | . | . | 7.4 | 0.15 | | | | |
| BR CH3 | . | 0.8 | 0.1 | 0.05* | . | . | 0.44 | 1.0 | . | . | . | 0.20 | . | 1.8 | . | | | | |
| FLX CH3 | . | 0.86 | 0.08 | 0.03 | . | . | 0.5 | 1.03 | . | . | . | 0.18 | . | 1.82 | . | | | | |
| BR ES1 | . | 0.6 | 0.31 | 0.05 | . | 0.03 | 0.44 | 0.8 | . | 0.2 | . | 0.18 | . | 0.15 | . | | | | |
| FLX B2 | . | . | . | . | . | . | . | 1.04 | . | . | . | . | . | . | . | | | | |
| FLX B4 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | | | | |
| BR PE 3 | . | 0.60 | 0.31 | 0.05 | . | 0.03 | . | 0.02 | . | . | . | 0.18 | . | 0.92 | . | | | | |
| FLX B1 | . | 0.21 | 0.11 | . | . | 0.11 | . | 1.15 | . | . | 1.97 | . | . | 0.11 | . | | | | |
| FLX S6M | . | 0.57 | 1.02 | 0.53 | . | . | . | 4.93 | . | 0.49 | . | 0.31 | 0.23 | 1.10 | 0.63 | | | | |
| FLX S5 | . | 0.451 | 0.783 | 0.431 | . | . | . | 0.476 | . | 0.451 | 0.414 | . | . | 0.908 | 0.453 | | | | |
| FLX S13 | . | 0.41 | 0.99 | 0.46 | . | 0.42 | . | 0.48 | . | 0.46 | 0.42 | 0.19 | 0.19 | 0.94 | 0.47 | | | | |
| BR PF 3 | . | 0.20 | . | 0.36 | . | . | . | 0.04 | . | 1.7 | . | 0.45 | . | . | 0.74 | | | | |
| BR CH4 | . | 0.20 | . | 0.50* | . | . | . | 2.00 | . | 0.70 | 0.10 | 0.60 | . | 0.80 | 1.00 | | | | |
| BR WIE2 | 2.27 | . | . | . | 0.5 | . | . | 0.83 | . | . | . | . | . | 2.49 | 0.68 | | | | |
| FLX B3 | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.25 | . | | | | |
| BR WIE1/1 | 0.11 | . | . | . | 0.10 | . | . | 0.17 | . | 0.18 | 0.13 | . | . | 0.12 | 0.14 | | | | |
| FLX B5 | . | . | . | . | . | . | . | . | . | . | . | . | . | 13.70 | . | | | | |

* BR CH3 and BR CH4 list Ta2O3 as Ta2O5

VARIOUS XRF DISCS, chart 4 of 4

typical analysis

30-40 mm Ø x 5-8 mm

| Number | SiO ₂ | Al ₂ O ₃ | B ₂ O ₃ | CaO | Fe ₂ O ₃ | K ₂ O | MgO | MnO | Na ₂ O | NiO | P ₂ O ₅ | PbO | SO ₃ | Sb ₂ O ₃ | TiO ₂ | ZnO |
|-----------|------------------|--------------------------------|-------------------------------|-------|--------------------------------|------------------|-------|------|-------------------|-------|-------------------------------|------|-----------------|--------------------------------|------------------|-------|
| BR SH1 | 51.34 | . | 22.648 | . | . | 5.00 | . | . | . | . | . | . | 0.012 | . | . | 20.00 |
| BR SH2 | 51.34 | . | 22.41 | . | . | 5.00 | . | . | . | . | . | . | 0.25 | . | . | 20.00 |
| BR HS3 | 51.2 | 7.0 | 2.0 | 10.0 | . | . | 6.5 | . | 17.1 | 2.0 | . | . | . | 1.0 | . | 1.0 |
| BR ME1 | 51.00 | 0.049 | 28.26 | 0.035 | . | 0.030 | 0.041 | . | 15.00 | 0.031 | . | . | . | 0.50 | 2.00 | 3.00 |
| BR ECH1 | 51.0 | 2.8 | . | 10.0 | 5.0 | . | . | 5.0 | 17.0 | 2.0 | 3.00 | . | . | 1.00 | 1.00 | . |
| SV B | 51.0 | . | . | 25.0 | 19.0 | . | . | . | . | 1.0 | . | . | . | . | . | . |
| BR TAB1/2 | 49.1 | 3.0 | . | 0.30 | . | 2.00 | . | . | 40.00 | . | . | . | . | 0.60 | . | . |
| BR U 31B | 49.1 | 1.5 | . | 20.0 | 16.0 | 3.0 | . | . | . | . | 1.0 | 4.0 | 0.4 | . | 3.0 | . |
| BR HS2 | 48.75 | . | 14.5 | . | . | . | . | . | 16.25 | . | 5.0 | 1.5 | . | 1.0 | . | . |
| BR AK1 | 47.82 | . | . | 10.00 | . | 2.00 | . | . | 10.00 | . | 3.38 | 5.00 | 1.80 | . | . | 10.00 |
| BR BO2 | 46.5 | 8.0 | . | 20.0 | . | . | 13.0 | . | 5.0 | . | 7.0 | . | . | 0.5 | . | . |
| BR U 22 | 45.0 | 7.0 | 8.0 | 10 | . | . | 6.5 | . | 16.0 | 2.0 | 0.3 | . | . | . | . | 1.0 |
| BR AX2 | 42.78 | 5.67 | . | 21.4 | 14.3 | 2.4 | 3.32 | . | . | . | 2.33 | 0.54 | . | . | . | . |
| BR PB 2 | 41.8 | 8.6 | . | 21.0 | 12.3 | 0.04 | 0.23 | 0.89 | 0.09 | 0.79 | 2.1 | 4.4 | . | . | 1.2 | 0.45 |
| FLX Q3 | 41.72 | 2.25 | 42.8 | 0.45 | . | . | 5.33 | . | . | . | . | . | . | . | . | . |
| BR HKM2 | 41.00 | 11.0 | 5.98 | . | 3.0 | 5.0 | . | . | 10.0 | 0.07 | 0.02 | . | . | . | 5.0 | . |
| BR U 16 | 40.0 | . | 24.0 | . | 0.10 | 5.0 | 10.0 | . | 10.0 | . | . | 2.0 | . | . | . | . |
| BR TAB5 | 38.40 | 3.0 | 15.00 | . | . | . | 28.00 | . | 10.00 | . | . | 3.00 | . | 0.60 | . | . |
| SV A | 36.8 | 11.9 | 3.5 | 0.7 | 0.4 | 2.5 | 3.5 | 31.9 | 0.3 | . | 0.6 | . | . | . | . | 6.6 |
| BR PA 4 | 36.52 | 15.8 | 4.2 | 0.83 | 1.16 | 2.16 | 3.2 | 20.3 | 0.13 | . | 0.56 | . | . | . | 3.9 | 7.4 |
| BR HKM1 | 35.6 | 10.0 | 32.00 | . | . | 5.0 | . | . | 10.0 | . | . | . | . | . | . | . |
| BR BS1 | 31.942 | 6.75 | . | 21.5 | 12.3 | 0.04 | 12.00 | 0.89 | 0.09 | 0.79 | 2.1 | 4.4 | 0.5 | . | 1.2 | 0.1 |
| BR AL2 | 19.4 | 12.0 | 20.0 | 0.5 | . | . | 3.0 | 25.0 | 12.0 | . | 1.0 | . | . | . | . | 2.0 |

| Number | Ag ₂ O | As ₂ O ₃ | BaO | Bi ₂ O ₃ | Br | CdO | CeO ₂ | CoO | Cr ₂ O ₃ | CuO | F | Ga ₂ O ₃ | GeO ₂ | I | In ₂ O ₃ | La ₂ O ₃ | MnO ₂ | Mn ₃ O ₄ | |
|-----------|-------------------|--------------------------------|-------|--------------------------------|------|------|------------------|------|--------------------------------|-----|------|--------------------------------|------------------|-----|--------------------------------|--------------------------------|------------------|--------------------------------|-----|
| BR SH1 | . | . | . | . | . | 1.00 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR SH2 | . | . | . | . | . | 1.00 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR HS3 | 0.5 | . | . | 0.5 | 0.2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR ME1 | . | . | 0.027 | 0.027 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR ECH1 | . | . | . | . | 0.20 | . | . | 2.00 | . | . | . | . | . | . | . | . | . | . | . |
| SV B | . | . | . | . | . | . | . | . | . | 0.5 | 0.5 | . | . | . | . | . | . | . | . |
| BR TAB1/2 | . | . | 2.0 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR U 31B | . | . | . | . | . | . | . | 2.0 | . | . | . | . | . | . | . | . | . | . | . |
| BR HS2 | . | 1.5 | . | . | . | . | 1.5 | . | . | . | . | 1.5 | . | . | . | 1.5 | . | . | . |
| BR AK1 | . | . | 5.00 | . | . | 5.00 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR BO2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR U 22 | 0.50 | . | . | 0.5 | 0.1 | . | . | . | . | . | . | . | . | 0.1 | . | . | . | . | . |
| BR AX2 | . | . | . | . | . | . | . | . | 6.26 | 1.0 | . | . | . | . | . | . | . | . | . |
| BR PB 2 | . | . | 0.04 | . | . | . | . | 1.62 | 0.25 | 1.4 | . | . | . | . | . | . | . | . | . |
| FLX Q3 | . | . | . | . | . | . | 0.47 | . | . | . | . | . | . | . | . | Li2O:9.1 | . | . | . |
| BR HKM2 | . | . | . | . | . | . | . | . | 0.03 | . | . | . | . | . | . | . | . | . | 5.0 |
| BR U 16 | . | 1.5 | . | . | . | . | 1.0 | . | . | . | . | 1.5 | . | . | . | 1.0 | . | . | . |
| BR TAB5 | . | . | 2.00 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| SV A | . | . | . | . | . | 0.8 | . | . | . | . | 0.5 | . | . | . | . | . | . | . | . |
| BR PA 4 | . | . | 2.0 | . | . | 0.39 | . | . | 0.15 | . | 0.17 | . | 0.08 | . | 0.04 | . | . | . | . |
| BR HKM1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR BS1 | . | 0.05 | 0.04 | . | . | . | . | 1.62 | . | 0.1 | 1.4 | . | . | . | . | . | . | . | . |
| BR AL2 | . | 0.5 | . | 0.5 | . | 2.0 | . | . | . | . | . | . | . | . | . | . | . | . | . |

| Number | MoO ₃ | Nb ₂ O ₅ | Nd ₂ O ₃ | Pr ₂ O ₃ | Rb ₂ O | Se | Sm ₂ O ₃ | SnO | SnO ₂ | SrO | Ta ₂ O ₅ | TeO ₂ | Tl ₂ O ₃ | V ₂ O ₃ | V ₂ O ₅ | WO ₃ | Y ₂ O ₃ | ZrO ₂ | |
|-----------|------------------|--------------------------------|--------------------------------|--------------------------------|-------------------|--------|--------------------------------|------|------------------|-------|--------------------------------|------------------|--------------------------------|-------------------------------|-------------------------------|-----------------|-------------------------------|------------------|------|
| BR SH1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR SH2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR HS3 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR ME1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR ECH1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| SV B | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR TAB1/2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR U 31B | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR HS2 | 1.0 | . | . | . | . | . | . | 1.0 | . | . | . | . | . | . | 4.0 | 1.0 | . | . | . |
| BR AK1 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR BO2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR U 22 | . | . | 0.5 | 0.5 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR AX2 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR PB 2 | . | . | . | . | . | . | . | 0.92 | 0.008 | 0.85 | 0.08 | . | . | . | . | 1.85 | . | . | . |
| FLX Q3 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR HKM2 | 4.0 | 4.0 | . | . | . | . | . | . | . | . | . | . | . | . | 5.5 | . | . | . | . |
| BR U 16 | 1.0 | . | . | . | . | . | . | 0.5 | . | 0.1 | . | . | 1.5 | . | . | 1.0 | . | . | . |
| BR TAB5 | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| SV A | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| BR PA 4 | . | . | . | . | 0.04 | (0.01) | . | . | . | 0.71 | . | 0.04 | . | . | 0.01 | . | . | . | 0.15 |
| BR HKM1 | . | 2.0 | . | . | . | . | . | . | . | . | 0.4 | . | . | . | 2.5 | . | . | . | . |
| BR BS1 | . | 0.6 | . | . | . | . | . | . | 0.2 | 0.008 | . | 0.08 | . | . | . | 1.85 | . | . | . |
| BR AL2 | . | . | . | . | . | . | . | . | 0.5 | . | 0.5 | . | . | . | . | . | . | . | 0.5 |

last

AUSMON XRF DRIFT MONITORS (wavelength dispersive XRF)

The monitors listed below have been formulated so that they have appropriate count rates for different ores and products. The monitors contain little flux and most have been in use for many years and have given excellent stability.

The monitor discs are 32 or 40mm diameter and about 4mm high. The monitors are polished flat so that they can be mounted precisely and are easily cleaned. The following types for wavelength dispersive XRF are available:

AUSMON Bauxite

Suitable with bauxites and other materials with high Aluminum and contain **Fe, Si, Al, Ca, F, Na, Mg, P, S, Cl, K, Ti, V, Cr, Mn, Co, Ni, Cu, Zn, As, Br, Sn, and Ga.** (24 elements)

AUSMON Cement A

Suitable when making detailed analyses of cements or other materials with high Calcium and contain **Ca, Si, Al, Mg, Fe, Na, Cl, S, F, P, K, Ti, Cr, Mn, Zn, Sr, Br, Ba, and Pb.** (19 elements)

AUSMON Iron Ore

Suitable with iron ores and related materials, containing **Fe, Si, Al, Ca, F, Na, Mg, P, S, Cl, K, Ti, V, Cr, Mn, Co, Ni, Cu, Zn, As, Br, Sn, Cd, Sb, Bi, Mo, Ba, and Pb.** (28 elements)

AUSMON Manganese Ore

Suitable with manganese ores and contain: **Mn, Fe, Si, Na, Mg, Al, P, K, Ca, Ti, V, Sr, Br, Ba, and Pb.** (15 elements)

AUSMON Mineral Sands

Suitable with mineral sand products, including but not limited to ilmenite, rutile, zircon, monazite and xenotime. The following elements are present: **Ti, Fe, Zr, Si, Y, La, Ce, Nd, Pr, Yb, P, F, Na, Mg, Al, S, Cl, K, Ca, Sc, V, Mn, Cr, Co, Ni, Cu, Zn, Br, As, Sr, Nb, Mo, Cd, Sn, Ba, Hf, Pb, Th, and U.** (39 elements)

AUSMON Nickel Ore

Suitable with nickel ores and related materials, containing **Ni, Fe, S, Si, F, Na, Mg, Al, P, Cl, K, Ca, Ti, Mn, Cr, Co, Cu, Zn, As, Se, Br, Mo, Ag, Pb, and Bi.** (25 elements)

AUSMON Rare Earths

Suitable with monazite, xenotime and other rare earth minerals for the rare earth oxides. The following elements are present: **La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y, P, F, Na, Mg, Al, Si, S, Cl, K, Ca, Sc, Ti, Mn, Fe, Ni, Br, Sr, Zr, Nb, Ba, Hf, Pb, Th, and U.** (39 elements)

AUSMON Silicates

These monitors were designed for the analysis of rocks, soils and related materials. They can also be used as general purpose monitors for a wide range of materials, eg. vegetables, etc. They contain the following elements as majors: **Fe, Mn, Ti, Ca, K, Cl, S, P, Si, Al, Mg, Na and F.** In addition about 2000ppm of each of the following are present: **Sc** (1000ppm), **V, Cr, Co, Cu, Ni, Zn, Ga, Ge, Se, As, Rb, Sr, Br, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, Te, Cs, Ba, La, Ce, Nd, Pr, Gd, Sm, Yb, Hf, Ta, W, Bi, Tl, Pb, Th, and U.** (53 elements)

AUSMON Sulfides

These monitors are for use with lead, zinc, iron and copper sulphides, as ores, concentrates and related products. They contain: **Pb, Zn, Fe, Cu, S, F, Na, Mg, Al, Si, P, K, Ca, Cl, Ti, Co, Ni, Cr, Mn, As, Sr, Se, Ag, Cd, Sn, Sb, Ba, Te, Tl, Mo, U, and Bi.** (32 elements)

AUSMON XRF DRIFT MONITORS (energy dispersive XRF)

The monitors listed below have been formulated so that they have appropriate count rates for different ores and products. The monitors contain little flux and most have been in use for many years and have given excellent stability.

The monitor discs (except AUSMON Cement B) are 32mm diameter and about 4mm high. The monitors are polished flat so that they can be mounted precisely and are easily cleaned. The following types for energy dispersive XRF are available:

AUSMON MCACAL

Intended for the energy dispersive XRF system, this monitor contains the following elements: **F, Na, Mg, Si, Cl, Ca, V, Zn, As, Fe, Y, Mo, Cd, Ba.** (14 elements)

AUSMON Mon A

This is intended as a drift monitor with the following elements: **Mg, Si, P, W, Pb, Sn.** (6 elements)

AUSMON Mon B

This is a drift monitor with the following elements: **Na, Al, Si, Ca, Ti, Cr, and Ni.** (7 elements)

AUSMON SPECIALS

Monitor discs can be made to suite needs not covered by the above. Very often this is for laboratories performing analysis on materials that do not have long term stability and so they cannot use a similar product as a monitor, eg aqueous liquids or liquids from the petroleum industry. Cl in brine, Ca in milk, Cl, Br, and trace elements in synthetic rubbers are some common examples for which custom monitors have been made.