

Standards equivalent to



Standards equivalent to Agilent

Agilent Environmental Calibration Standard - 25 components		Reference: 5183-4688.L1	
		Volume: 100 ml	Matrix: in 10 % HNO ₃ /tr.HF
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cu	10 mg/l
Fe	1000 mg/l	Pb	10 mg/l
Mg	1000 mg/l	Mn	10 mg/l
K	1000 mg/l	Mo	10 mg/l
Na	1000 mg/l	Ni	10 mg/l
Al	10 mg/l	Se	10 mg/l
Sb	10 mg/l	Ag	10 mg/l
As	10 mg/l	Tl	10 mg/l
Ba	10 mg/l	Th	10 mg/l
Be	10 mg/l	U	10 mg/l
Cd	10 mg/l	V	10 mg/l
Cr	10 mg/l	Zn	10 mg/l
Co	10 mg/l		

Agilent Multi-element Calibration Standard # 2A - 28 components		Reference: 8500-6940.L1	
		Volume: 100 ml	Matrix: in 5 % HNO ₃
Element	Concentration	Element	Concentration
Ag	10 mg/l	K	10 mg/l
Al	10 mg/l	Li	10 mg/l
As	10 mg/l	Mg	10 mg/l
Ba	10 mg/l	Mn	10 mg/l
Be	10 mg/l	Na	10 mg/l
Ca	10 mg/l	Ni	10 mg/l
Cd	10 mg/l	Pb	10 mg/l
Co	10 mg/l	Rb	10 mg/l
Cr	10 mg/l	Se	10 mg/l
Cs	10 mg/l	Sr	10 mg/l
Cu	10 mg/l	Tl	10 mg/l
Fe	10 mg/l	U	10 mg/l
Ga	10 mg/l	V	10 mg/l
Hg	10 mg/l	Zn	10 mg/l

Initial Calibration Verification Standard - 24 components		Reference: 5183-4687.L1	
		Volume: 100 ml	Matrix: in 5 % HNO ₃
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cr	100 mg/l
Fe	1000 mg/l	Mn	100 mg/l
K	1000 mg/l	Mo	100 mg/l
Mg	1000 mg/l	Pb	100 mg/l
Na	1000 mg/l	Sb	100 mg/l
Ag	100 mg/l	Se	100 mg/l
Al	100 mg/l	Tl	100 mg/l
As	100 mg/l	V	100 mg/l
Ba	100 mg/l	Zn	100 mg/l
Be	100 mg/l	U	100 mg/l
Cd	100 mg/l	Cu	100 mg/l
Co	100 mg/l	Ni	100 mg/l

Initial Calibration Verification Standard - 26 components		Reference: 5183-4682.L1	
		Volume: 100 ml	Matrix: in 5 % HNO ₃
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cr	10 mg/l
Fe	1000 mg/l	Cu	10 mg/l
K	1000 mg/l	Mn	10 mg/l
Mg	1000 mg/l	Mo	10 mg/l
Na	1000 mg/l	Ni	10 mg/l
Sr	1000 mg/l	Pb	10 mg/l
Ag	10 mg/l	Sb	10 mg/l
Al	10 mg/l	Se	10 mg/l
As	10 mg/l	Tl	10 mg/l
Ba	10 mg/l	V	10 mg/l
Be	10 mg/l	Zn	10 mg/l
Cd	10 mg/l	Th	10 mg/l
Co	10 mg/l	U	10 mg/l

6020 Interference Check Solution A for ICP-MS systems -12 components		Reference: 5188-6526.L1		Reference: 5188-6526.L5	
		Volume: 100 ml	Matrix: in 5 % HNO ₃ /tr HF	Volume: 500 ml	Matrix: in 5 % HNO ₃ /tr HF
Element	Concentration	Element	Concentration	Element	Concentration
Cl-	20 000 mg/l	Na	2 500 mg/l	Mg	1000 mg/l
Ca	3 000 mg/l	C	2 000 mg/l	P	1000 mg/l
Fe	2 500 mg/l	Al	1000 mg/l	K	1000 mg/l



6020 Interference Check Solution B for ICP/MS - 11 components		<u>Reference:</u> 5188-6527.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Co	20 mg/l	As	10 mg/l
Cr	20 mg/l	Cd	10 mg/l
Cu	20 mg/l	Se	10 mg/l
Mn	20 mg/l	Zn	10 mg/l
Ni	20 mg/l	Ag	5 mg/l
V	20 mg/l		

Internal standard mix for ICP-MS systems - 8 components		<u>Reference:</u> 5188-6525.L1	
Volume: 100 ml Matrix: in 10 % HNO ₃ /tr HCl			
Element	Concentration	Element	Concentration
Li	10 mg/l	In	10 mg/l
Sc	10 mg/l	Tb	10 mg/l
Ge	10 mg/l	Lu	10 mg/l
Rh	10 mg/l	Bi	10 mg/l

ICP-MS tuning solution - 6 components		<u>Reference:</u> 5190-0465.L1	
Volume: 100 ml Matrix: in 2 % HNO ₃			
Element	Concentration	Element	Concentration
Li	10 mg/l	Ce	10 mg/l
Mg	10 mg/l	Tl	10 mg/l
Y	10 mg/l	Co	10 mg/l

ICP-MS Stock Tuning Solution - 5 components		<u>Reference:</u> 5188-6564.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ /tr HF			
Element	Concentration	Element	Concentration
Li	10 mg/l	Tl	10 mg/l
Y	10 mg/l	Co	10 mg/l
Ce	10 mg/l		

ICP internal standard - 15 components		<u>Reference:</u> 6610030100.L1	<u>Reference:</u> 6610030100.L5
Volume: 100 ml Matrix: in 5 % HNO ₃			Volume: 500 ml Matrix: in 5 % HNO ₃
Element	Concentration	Element	Concentration
Al	5 mg/l	Co	5 mg/l
As	5 mg/l	Cr	5 mg/l
Ba	5 mg/l	Cu	5 mg/l
Cd	5 mg/l	Mn	5 mg/l

Tuning Solution - 9 elements		<u>Reference:</u> 190024400.L1	
Volume: 100 ml Matrix: in 2 % HNO ₃			
Element	Concentration	Element	Concentration
Ba	10 mg/l	Pb	10 mg/l
Be	10 mg/l	Mg	10 mg/l
Ce	10 mg/l	Tl	10 mg/l
Co	10 mg/l	Th	10 mg/l
In	10 mg/l		

ICV-7 QC standard Initial/continuing calibration verification standard - 22 components		<u>Reference:</u> 190064900.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Ca	5000 mg/l	Cu	25 mg/l
Mg	5000 mg/l	Zn	20 mg/l
K	5000 mg/l	Mn	15 mg/l
Na	5000 mg/l	As	10 mg/l
Al	200 mg/l	Cr	10 mg/l
Ba	200 mg/l	Ag	10 mg/l
Fe	100 mg/l	Tl	10 mg/l
Sb	60 mg/l	Be	5 mg/l
Co	50 mg/l	Cd	5 mg/l
V	50 mg/l	Pb	5 mg/l
Ni	40 mg/l	Se	5 mg/l

STANDARDS EQUIVALENT TO

QCSTD-27 Quality Control standard for environmental analyses		<u>Reference:</u> 8500-6940.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO ₃ /tr. Hf	
Element	Concentration	Element	Concentration
Al	100 mg/l	Mn	100 mg/l
Sb	100 mg/l	Mo	100 mg/l
As	100 mg/l	Ni	100 mg/l
Ba	100 mg/l	K	100 mg/l
Be	100 mg/l	Se	100 mg/l
B	100 mg/l	Si	100 mg/l
Cd	100 mg/l	Ag	100 mg/l
Ca	100 mg/l	Sr	100 mg/l
Cr	100 mg/l	Na	100 mg/l
Co	100 mg/l	Tl	100 mg/l
Cu	100 mg/l	Ti	100 mg/l
Fe	100 mg/l	V	100 mg/l
Pb	100 mg/l	Zn	100 mg/l
Mg	100 mg/l		

ANALT-B Quality Control Standard - 12 components		<u>Reference:</u> 190065100.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Cd	100 mg/l	Be	50 mg/l
Ni	100 mg/l	Co	50 mg/l
Pb	100 mg/l	Cr	50 mg/l
Ag	100 mg/l	Cu	50 mg/l
Zn	100 mg/l	Mn	50 mg/l
Ba	50 mg/l	V	50 mg/l

INTF-A Quality Control standard - 4 components		<u>Reference:</u> 190064800.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Al	5000 mg/l	Mg	5000 mg/l
Ca	5000 mg/l	Fe	2000 mg/l

ICP-OES wavelength calibration solution concentrate - 15 components		<u>Reference:</u> 6610030000.L1		<u>Reference:</u> 6610030000.L5	
Element	Concentration	Element	Concentration	Element	Concentration
Al	50 mg/l	Co	50 mg/l	Mo	50 mg/l
As	50 mg/l	Cr	50 mg/l	Ni	50 mg/l
Ba	50 mg/l	Cu	50 mg/l	Pb	50 mg/l
Cd	50 mg/l	Mn	50 mg/l	Se	50 mg/l

ICP-OES wavelength calibration solution - 15 components		<u>Reference:</u> 6610030100.L1		<u>Reference:</u> 6610030100.L5	
Element	Concentration	Element	Concentration	Element	Concentration
Al	5 mg/l	Co	5 mg/l	Mo	5 mg/l
As	5 mg/l	Cr	5 mg/l	Ni	5 mg/l
Ba	5 mg/l	Cu	5 mg/l	Pb	5 mg/l
Cd	5 mg/l	Mn	5 mg/l	Se	5 mg/l

ICP-OES wavelength calibration solution - 6 components		<u>Reference:</u> 6610030400.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Bi	100 mg/l	Sc	100 mg/l
In	100 mg/l	Tb	100 mg/l
6Li	100 mg/l	Y	100 mg/l

Calibration mix 1 for AA and ICP-OES 4 components		<u>Reference:</u> 6610030500.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 2 % HNO ₃ ; 0.5 % HF	
Element	Concentration	Element	Concentration
Mo	100 mg/l	Sn	100 mg/l
Sb	100 mg/l	Ti	100 mg/l



Calibration mix 2 for AA and ICP-OES - 18 components		Reference: 6610030600.L1 Volume: 100 ml Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Ag	100 mg/l	Mn	100 mg/l
Al	100 mg/l	Ni	100 mg/l
As	100 mg/l	Pb	100 mg/l
Ba	100 mg/l	Se	100 mg/l
Be	100 mg/l	Th	100 mg/l
Cd	100 mg/l	Tl	100 mg/l
Co	100 mg/l	U	100 mg/l
Cr	100 mg/l	V	100 mg/l
Cu	100 mg/l	Zn	100 mg/l
Calibration mix majors		Reference: 6610030700.L1 Volume: 100 ml Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Ca	500 mg/l	K	500 mg/l
Fe	500 mg/l	Mg	500 mg/l
PA Tuning Solution 1 - 26 components		Reference: 5188-6524-1.L1 Volume: 100 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
As	20 mg/l	In	5 mg/l
Be	20 mg/l	Li	5 mg/l
Cd	20 mg/l	Lu	5 mg/l
Zn	20 mg/l	Mn	5 mg/l
Mg	10 mg/l	Na	5 mg/l
Ni	10 mg/l	Sc	5 mg/l
Pb	10 mg/l	Sr	5 mg/l
Al	5 mg/l	Th	5 mg/l
Ba	5 mg/l	Tl	5 mg/l
Bi	5 mg/l	U	5 mg/l
Co	5 mg/l	V	5 mg/l
Cr	5 mg/l	Y	2.5 mg/l
Cu	5 mg/l	Yb	2.5 mg/l
PA Tuning Solution 2 - 8 components		Reference: 5188-6524-2.L1 Volume: 100 ml Matrix: in 5 % HCl	
Element	Concentration	Element	Concentration
Ge	10 mg/l	Sb	10 mg/l
Mo	10 mg/l	Sn	10 mg/l
Pd	10 mg/l	Ir	5 mg/l
Ru	10 mg/l	Ti	5 mg/l
Multi-element calibration standard-4B - 12 components		Reference: 8500-6942.L1 Volume: 100 ml Matrix: in 2 % HNO ₃ / tr. HF	
Element	Concentration	Element	Concentration
B	10 mg/l	S	10 mg/l
Ge	10 mg/l	Si	10 mg/l
Mo	10 mg/l	Ta	10 mg/l
Nb	10 mg/l	Ti	10 mg/l
P	10 mg/l	W	10 mg/l
Re	10 mg/l	Zr	10 mg/l
Multi-element calibration standard-1 - 17 components		Reference: 8500-6944.L1 Volume: 100 ml Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Ce	10 mg/l	Pr	10 mg/l
Dy	10 mg/l	Sc	10 mg/l
Er	10 mg/l	Sm	10 mg/l
Eu	10 mg/l	Tb	10 mg/l
Gd	10 mg/l	Th	10 mg/l
Ho	10 mg/l	Tm	10 mg/l
La	10 mg/l	Y	10 mg/l
Lu	10 mg/l	Yb	10 mg/l
Nd	10 mg/l		

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Multi-element calibration standard-3 - 10 components		Reference: 8500-6948.L1	
Volume: 100 ml Matrix: in 10 % HCl/1 % HNO ₃			
Element	Concentration	Element	Concentration
Sb	10 mg/l	Pt	10 mg/l
Au	10 mg/l	Rh	10 mg/l
Hf	10 mg/l	Ru	10 mg/l
Ir	10 mg/l	Te	10 mg/l
Pd	10 mg/l	Sn	10 mg/l

ICP standard solution - 15 components		Reference: 8500-6944.L1	
Volume: 100 ml Matrix: in 2 % HNO ₃			
Element	Concentration	Element	Concentration
Al	5 mg/l	Mn	5 mg/l
As	5 mg/l	Mo	5 mg/l
Ba	5 mg/l	Ni	5 mg/l
Cd	5 mg/l	Pb	5 mg/l
Co	5 mg/l	Se	5 mg/l
Cr	5 mg/l	Sr	5 mg/l
Cu	5 mg/l	Zn	5 mg/l
K	5 mg/l		

ICV-7 QC standard Initial/ continuing calibration verification standard - 26 components		Reference: 51834682.L1	
Volume: 100 ml Matrix: in 10 % HNO ₃			
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cr	10 mg/l
Fe	1000 mg/l	Cu	10 mg/l
K	1000 mg/l	Mn	10 mg/l
Mg	1000 mg/l	Mo	10 mg/l
Na	1000 mg/l	Ni	10 mg/l
Sr	1000 mg/l	Pb	10 mg/l
Ag	10 mg/l	Sb	10 mg/l
Al	10 mg/l	Se	10 mg/l
As	10 mg/l	Tl	10 mg/l
Ba	10 mg/l	V	10 mg/l
Be	10 mg/l	Zn	10 mg/l
Cd	10 mg/l	Th	10 mg/l
Co	10 mg/l	U	10 mg/l



Standards equivalent to Perkin Elmer

Mixed Calibration Standard - 10 components		Reference: N0691579.L1			Reference: N0691579.L5		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
As	50 mg/l	Li	10 mg/l	Sr	10 mg/l	Ba	1 mg/l
K	50 mg/l	Mn	10 mg/l	Zn	10 mg/l	Mg	1 mg/l
La	10 mg/l	Ni	10 mg/l				

Mixed Calibration Standard 1 - 6 components		Reference: N9300200.L1		Mixed Calibration Standard 2 - 5 components		Reference: N9300201.L1	
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Pb	500 mg/l	Zn	150 mg/l			Cu	100 mg/l
Se	200 mg/l	Mn	100 mg/l	Ba	100 mg/l	V	100 mg/l
Cd	150 mg/l	Be	50 mg/l	Co	100 mg/l		

Mixed Calibration Standard 3 - 3 components		Reference: N9300202.L1		Mixed Calibration Standard 4 - 6 components		Reference: N9300203.L1	
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
As	500 mg/l	Si	100 mg/l			Na	200 mg/l
Mo	100 mg/l			K	400 mg/l	Cr	20 mg/l

Mixed Calibration Standard 5 - 5 components		Reference: N9300204.L1	
Element	Concentration	Element	Concentration
Mg	1000 mg/l	B	100 mg/l
Sb	200 mg/l	Ag	50 mg/l
Tl	200 mg/l		

Wavelength Calibration Standard - 11 components		Reference: N0681470.L1			Reference: N0681470.L5		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
P	100 mg/l	As	20 mg/l	Mn	20 mg/l	Na	20 mg/l
K	100 mg/l	La	20 mg/l	Mo	20 mg/l	Sc	20 mg/l
S	100 mg/l	Li	20 mg/l	Ni	20 mg/l		

STANDARDS EQUIVALENT TO

Initial Calibration Verification Standard - 21 components		Reference: N9303953.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Ca	500 mg/l	Cu	25 mg/l
Mg	500 mg/l	Zn	20 mg/l
K	500 mg/l	Mn	15 mg/l
Na	500 mg/l	As	10 mg/l
Ba	200 mg/l	Cr	10 mg/l
Al	200 mg/l	Ag	10 mg/l
Fe	100 mg/l	Tl	10 mg/l
Sb	60 mg/l	Cd	5 mg/l
Co	50 mg/l	Se	5 mg/l
V	50 mg/l	Pb	3 mg/l
Ni	40 mg/l		

Quality Control Standard, 21 components Pure (Pure XVI)		Reference: N9300281.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ / tr. HF/ tr.Tart. Ac.			
Element	Concentration	Element	Concentration
As	100 mg/l	Mo	100 mg/l
Be	100 mg/l	Ni	100 mg/l
Ca	100 mg/l	Pb	100 mg/l
Cd	100 mg/l	Sb	100 mg/l
Co	100 mg/l	Se	100 mg/l
Cr	100 mg/l	Sr	100 mg/l
Cu	100 mg/l	Ti	100 mg/l
Fe	100 mg/l	Tl	100 mg/l
Li	100 mg/l	V	100 mg/l
Mg	100 mg/l	Zn	100 mg/l
Mn	100 mg/l		

Quality Control Standard - 7 components		Reference: N9300280.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ / tr. HF			
Element	Concentration	Element	Concentration
K	1000 mg/l	Ba	100 mg/l
Si	500 mg/l	Na	100 mg/l
Al	100 mg/l	Ag	50 mg/l
B	100 mg/l		

Instrument Calibration Standard 1 - 4 components		Reference: N9300218.L1		Reference: N9300218.L5	
Volume: 100 ml Matrix: in 5 % HNO ₃					
Element	Concentration	Element	Concentration	Element	Concentration
Ca	5000 mg/l	K	5000 mg/l	Na	5000 mg/l
				Mg	5000 mg/l

Instrument Calibration Standard 2 - 5 components		Reference: N9300219.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Ni	400 mg/l	Ag	100 mg/l
Zn	200 mg/l	Cr	100 mg/l
Mn	150 mg/l		

Instrument Calibration Standard 3 - 7 components		Reference: N9300220.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Al	2000 mg/l	V	500 mg/l
Ba	2000 mg/l	Cu	250 mg/l
Fe	1000 mg/l	Be	50 mg/l
Co	500 mg/l		



Instrument Calibration Standard 4 - 5 components		Reference: N9300221.L1 Volume: 100 ml Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
As	100 mg/l	Se	50 mg/l
Tl	100 mg/l	Pb	30 mg/l
Cd	50 mg/l		

Contract Required Detection Limits (CRDL) - 15 components		Reference: N9300225.L1 Volume: 100 ml Matrix: in 5 % HNO ₃ /tr Tart Ac/tr HF	
Element	Concentration	Element	Concentration
Sb	120 mg/l	As	20 mg/l
Co	100 mg/l	Cr	20 mg/l
V	100 mg/l	Tl	20 mg/l
Ni	80 mg/l	Be	10 mg/l
Cu	50 mg/l	Cd	10 mg/l
Zn	40 mg/l	Se	10 mg/l
Mn	30 mg/l	Pb	6 mg/l
Ag	20 mg/l		

Instrument Check Standard 1 - 17 components		Reference: N9303821.L1 Volume: 100 ml Matrix: in 2 % HNO ₃ /tr Tart Ac/tr HF	
Element	Concentration	Element	Concentration
Ag	10 mg/l	Mn	10 mg/l
Al	10 mg/l	Ni	10 mg/l
As	10 mg/l	Pb	10 mg/l
Ba	10 mg/l	Sb	10 mg/l
Be	10 mg/l	Se	10 mg/l
Cd	10 mg/l	Tl	10 mg/l
Co	10 mg/l	V	10 mg/l
Cr	10 mg/l	Zn	10 mg/l
Cu	10 mg/l		

Instrument Check Standard 3 - 5 components		Reference: N9303822.L1 Volume: 100 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
Ca	200 mg/l	Mg	200 mg/l
Fe	200 mg/l	Na	200 mg/l
K	200 mg/l		

Instrument Check Standard 4 - 3 components		Reference: N9303823.L1 Volume: 100 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
Mo	10 mg/l	U	10 mg/l
Th	10 mg/l		

Instrument Check Standard 5 - 4 components		Reference: N9303824.L1 Volume: 100 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
Mo	10 mg/l	Sr	10 mg/l
Sn	10 mg/l	Ti	10 mg/l

Interference Check Standard - 5 components		Reference: N9300208.L1 Volume: 100 ml Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Ca	6000 mg/l	Al	1200 mg/l
Fe	5000 mg/l	Na	1000 mg/l
Mg	3000 mg/l		

Interference Check Standard 18 - 17 components		Reference: N9300205.L1 Volume: 100 ml Matrix: in 5 % HNO ₃		Reference: N9300205.L5 Volume: 500 ml Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration	Element	Concentration
K	20000 mg/l	Ag	300 mg/l	Cu	300 mg/l
As	1000 mg/l	Ba	300 mg/l	Ni	300 mg/l
Pb	1000 mg/l	Cd	300 mg/l	V	300 mg/l
Tl	1000 mg/l	Co	300 mg/l	Zn	300 mg/l
Se	500 mg/l	Cr	300 mg/l	Mn	200 mg/l

Interferents A - 4 components		<u>Reference:</u> N9300226.L1 Volume: 100 ml Matrix: in 5 % HNO ₃			<u>Reference:</u> N9300226.L5 Volume: 500 ml Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	5000 mg/l	Ca	5000 mg/l	Mg	5000 mg/l	Fe	2000 mg/l

Alternate Interferents A - 6 components		<u>Reference:</u> N9300228.L1 Volume: 100 ml Matrix: in 5 % HNO ₃			<u>Reference:</u> N9300228.L5 Volume: 500 ml Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Cr	1000 mg/l	Mn	1000 mg/l	Ti	1000 mg/l		
Cu	1000 mg/l	Ni	1000 mg/l	V	1000 mg/l		

Analytes B - 16 components		<u>Reference:</u> N9300228.L1 Volume: 100 ml Matrix: in 5 % HNO ₃ / tr Tart Ac/tr HF			<u>Reference:</u> N9300228.L5 Volume: 500 ml Matrix: in 5 % HNO ₃ / tr Tart Ac/tr HF		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Cd	100 mg/l	Ba	50 mg/l	Cu	50 mg/l	As	10 mg/l
Ni	100 mg/l	Be	50 mg/l	Mn	50 mg/l	Tl	10 mg/l
Zn	100 mg/l	Co	50 mg/l	V	50 mg/l	Pb	5 mg/l
Sb	60 mg/l	Cr	50 mg/l	Ag	20 mg/l	Se	5 mg/l

Alternate Analytes B - 12 components		<u>Reference:</u> N9300229.L1 Volume: 100 ml Matrix: in 5 % HNO ₃ / tr Tart Ac/tr HF			<u>Reference:</u> N9300229.L5 Volume: 500 ml Matrix: in 5 % HNO ₃ / tr Tart Ac/tr HF		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	100 mg/l	Mo	100 mg/l	Se	100 mg/l	Fe	10 mg/l
As	100 mg/l	Na	100 mg/l	Tl	100 mg/l	Mg	10 mg/l
B	100 mg/l	Sb	100 mg/l	Ca	10 mg/l	Si	10 mg/l

Interference Check Solution 1 - 12 components		<u>Reference:</u> N9303828.L1 Volume: 100 ml Matrix: in 5 % HNO ₃ / tr Tart Ac/tr HF			<u>Reference:</u> N9303828.L5 Volume: 500 ml Matrix: in 5 % HNO ₃ / tr Tart Ac/tr HF		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Cl ⁻	10000 mg/l	Ca	1000 mg/l	Mg	1000 mg/l	S	1000 mg/l
C	2000 mg/l	Fe	1000 mg/l	Na	1000 mg/l	Mo	20 mg/l
Al	1000 mg/l	K	1000 mg/l	P	1000 mg/l	Ti	20 mg/l



Interference Check Solution 2 - 9 components		<u>Reference:</u> N9303830.L1 Volume: 100 ml Matrix: in 2 % HNO ₃			<u>Reference:</u> N9303830.L5 Volume: 500 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration	Element	Concentration	
Ag	10 mg/l	Co	10 mg/l	Mn	10 mg/l	
As	10 mg/l	Cr	10 mg/l	Ni	10 mg/l	
Cd	10 mg/l	Cu	10 mg/l	Zn	10 mg/l	

Analytes C - 17 components		<u>Reference:</u> N9303831.L1 Volume: 100 ml Matrix: in 2 % HNO ₃ / tr Tart Ac/tr HF			<u>Reference:</u> N9303831.L5 Volume: 500 ml Matrix: in 2 % HNO ₃ / tr Tart Ac/tr HF		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Ag	2 mg/l	Co	2 mg/l	Ni	2 mg/l	V	2 mg/l
As	2 mg/l	Cr	2 mg/l	Pb	2 mg/l	Zn	2 mg/l
Ba	2 mg/l	Cu	2 mg/l	Sb	2 mg/l		
Be	2 mg/l	Hg	2 mg/l	Se	2 mg/l		
Cd	2 mg/l	Mn	2 mg/l	Tl	2 mg/l		

Universal Data Acquisition Standard 5: 12 components		<u>Reference:</u> N9300235.L1 Volume: 100 ml Matrix: in 2 % HNO ₃ / tr. HF	
Element	Concentration	Element	Concentration
B	10 mg/l	S	10 mg/l
Ge	10 mg/l	Si	10 mg/l
Mo	10 mg/l	Ta	10 mg/l
Nb	10 mg/l	Ti	10 mg/l
P	10 mg/l	W	10 mg/l
Re	10 mg/l	Zr	10 mg/l

Vis Wavecal Solution - 8 components		<u>Reference:</u> N9302946.L1 Volume: 100 ml Matrix: in 2 % HNO ₃			<u>Reference:</u> N9302946.L25 Volume: 250 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration	Element	Concentration	
Ba	1 mg/l	La	10 mg/l	Na	10 mg/l	
Ca	1 mg/l	Li	10 mg/l	Sr	10 mg/l	
K	50 mg/l	Mn	10 mg/l			

STANDARDS EQUIVALENT TO

UV Wavecal Solution - 11 components		Reference: N0681470.L25	
Volume: 100 ml Matrix: in 5 % HCl			
Element	Concentration	Element	Concentration
P	100 mg/l	Sc	20 mg/l
S	100 mg/l	As	20 mg/l
K	100 mg/l	Na	20 mg/l
Mn	20 mg/l	La	20 mg/l
Mo	20 mg/l	Li	20 mg/l
Ni	20 mg/l		

UV Wavecal Solution - 12 components		Reference: N0582152.L5	
Volume: 500 ml Matrix: in 5 % HCl			
Element	Concentration	Element	Concentration
P	100 mg/l	Sc	20 mg/l
S	100 mg/l	As	20 mg/l
K	100 mg/l	Na	20 mg/l
Mn	20 mg/l	La	20 mg/l
Mo	20 mg/l	Li	20 mg/l
Ni	20 mg/l	Ca	1 mg/l

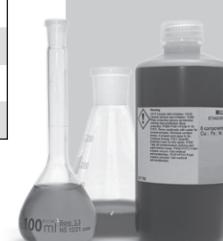
Low UV Standard - 3 components		Reference: N0691580.L1	Reference: N0691580.L25	Reference: N0691580.L5	
Volume: 100 ml Matrix: in 2 % HNO ₃		Volume: 500 ml Matrix: in 2 % HNO ₃	Volume: 500 ml Matrix: in 2 % HNO ₃		
Element	Concentration	Element	Concentration	Element	
Al	10 mg/l	P	10 mg/l	S	10 mg/l

Calcium Stray Light Standard		Reference: N0691581.L1
Volume: 100 ml Matrix: in H ₂ O		
Element	Concentration	
Ca	10 000 mg/l	

Spike Sample Standard I (water) - 17 components		Reference: N9303839.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ /tr Tart Ac/tr HF			
Element	Concentration	Element	
Fe	500 mg/l	V	100 mg/l
Ba	250 mg/l	As	50 mg/l
Zn	250 mg/l	Pb	50 mg/l
Co	100 mg/l	Ag	25 mg/l
Cr	100 mg/l	Be	25 mg/l
Cu	100 mg/l	Cd	25 mg/l
Mn	100 mg/l	Se	25 mg/l
Ni	100 mg/l	Tl	25 mg/l
Sb	100 mg/l		

Spike Sample Standard I - 18 components		Reference: N9300230.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ /tr Tart Ac/tr HF			
Element	Concentration	Element	
Al	200 mg/l	Pb	50 mg/l
As	200 mg/l	Sb	50 mg/l
Ba	200 mg/l	V	50 mg/l
Se	200 mg/l	Zn	50 mg/l
Tl	200 mg/l	Cu	25 mg/l
Fe	200 mg/l	Cr	20 mg/l
Co	50 mg/l	Ag	5 mg/l
Mn	50 mg/l	Be	5 mg/l
Ni	50 mg/l	Cd	5 mg/l

Spike Sample Standard 2 (soil) - 15 components		Reference: N9303840.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ /tr Tart Ac/tr HF			
Element	Concentration	Element	
Ba	250 mg/l	Sb	100 mg/l
Cr	250 mg/l	As	50 mg/l
Cu	250 mg/l	Cd	50 mg/l
Zn	250 mg/l	Ag	25 mg/l
V	150 mg/l	Be	25 mg/l
Ni	125 mg/l	Se	25 mg/l
Co	100 mg/l	Tl	25 mg/l
Pb	100 mg/l		



Spike Sample Standard 3 (for ILM 05.2) - 17 components		Reference: N9303841.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ /tr Tart Ac/tr HF			
Element	Concentration	Element	Concentration
Al	200 mg/l	Sb	10 mg/l
Ba	200 mg/l	Be	5 mg/l
Co	50 mg/l	Cd	5 mg/l
Mn	50 mg/l	Ag	5 mg/l
Ni	50 mg/l	Tl	5 mg/l
V	50 mg/l	As	4 mg/l
Zn	50 mg/l	Pb	2 mg/l
Cu	25 mg/l	Se	1 mg/l
Cr	20 mg/l		

Multi-Element Solution - 4 components		Reference: N9307113.L1	Reference: N9307113.L5				
Volume: 100 ml Matrix: in 5 % HNO ₃		Volume: 500 ml Matrix: in 5 % HNO ₃					
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	1000 mg/l	Ca	1000 mg/l	Fe	1000 mg/l	Mg	1000 mg/l

Low UV Standard - 3 components		Reference: N9307114.L1	Reference: N9307114.L5				
Volume: 100 ml Matrix: in 2 % HNO ₃		Volume: 500 ml Matrix: in 2 % HNO ₃					
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
K	1000 mg/l	Na	1000 mg/l	P	1000 mg/l		

Multi-Element Solution - 5 components		Reference: N9307115.L1	Reference: N9307115.L5				
Volume: 100 ml Matrix: in 5 % HNO ₃		Volume: 500 ml Matrix: in 5 % HNO ₃					
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Mo	1000 mg/l	Sb	1000 mg/l	Zr	1000 mg/l		
Sn	1000 mg/l	W	1000 mg/l				

Multi-Element Solution - 17 components		Reference: N9307116.L1	Reference: N9307116.L5				
Volume: 100 ml Matrix: in 5 % HNO ₃		Volume: 500 ml Matrix: in 5 % HNO ₃					
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
As	1000 mg/l	Co	1000 mg/l	Mn	1000 mg/l	Y	1000 mg/l
Ba	1000 mg/l	Cu	1000 mg/l	Ni	1000 mg/l	Zn	1000 mg/l
Be	1000 mg/l	La	1000 mg/l	Sc	1000 mg/l		
Cr	1000 mg/l	Pb	1000 mg/l	Sr	1000 mg/l		
Cd	1000 mg/l	Li	1000 mg/l	V	1000 mg/l		

STANDARDS EQUIVALENT TO

Perkin Elmer Pure 4 (Quality Control Standard 23)		Reference: N9303941.L1	
Volume:	100 ml	Matrix:	in 2 %HNO ₃
Element	Concentration	Element	Concentration
Al	1000 mg/l	Pb	1000 mg/l
Ba	1000 mg/l	Li	1000 mg/l
Bi	1000 mg/l	Mg	1000 mg/l
B	1000 mg/l	Mn	1000 mg/l
Cd	1000 mg/l	Ni	1000 mg/l
Ca	1000 mg/l	K	1000 mg/l
Cr	1000 mg/l	Ag	1000 mg/l
Co	1000 mg/l	Na	1000 mg/l
Cu	1000 mg/l	Sr	1000 mg/l
Ga	1000 mg/l	Tl	1000 mg/l
In	1000 mg/l	Zn	1000 mg/l
Fe	1000 mg/l		

PerkinElmer Pure VIII - 24 components		Reference: N9303942.L1	
Volume:	100 ml	Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
Al	100 mg/l	Pb	100 mg/l
Ba	100 mg/l	Li	100 mg/l
Be	100 mg/l	Mg	100 mg/l
Bi	100 mg/l	Mn	100 mg/l
B	100 mg/l	Ni	100 mg/l
Cd	100 mg/l	K	100 mg/l
Ca	100 mg/l	Se	100 mg/l
Cr	100 mg/l	Na	100 mg/l
Co	100 mg/l	Sr	100 mg/l
Cu	100 mg/l	Te	100 mg/l
Ga	100 mg/l	Tl	100 mg/l
Fe	100 mg/l	Zn	100 mg/l

PerkinElmer Pure IX - 4 components		Reference: N9303943.L1	
Volume:	100 ml	Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
As	100 mg/l	Pb	100 mg/l
Be	100 mg/l	Cd	100 mg/l

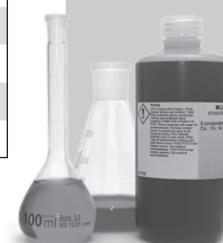
8 mg/L Mercury in 5% HNO₃		Reference: N9303954.L1	
Volume:	100 ml	Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
Hg	8 mg/l		

PerkinElmer Pure XI		Reference: N9303945.L1	
Volume:	100 ml	Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
Zn	2500 mg/l	Cu	800 mg/l
Cr	900 mg/l	Ni	200 mg/l
Pb	900 mg/l	Cd	10 mg/l

5 mg/L Mercury in 5% HNO₃		Reference: N9303949.L1	
Volume:	100 ml	Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
Hg	5 mg/l		

PerkinElmer Pure X		Reference: N9303944.L1	
Volume:	100 ml	Matrix:	in 2 % HNO ₃
Element	Concentration	Element	Concentration
Ca	35 000 mg/l	Zn	50 mg/l
Mg	15 000 mg/l	Mn	30 mg/l
Na	8 000 mg/l	Co	25 mg/l
K	3 000 mg/l	Pb	25 mg/l
B	100 mg/l	Be	20 mg/l
Fe	100 mg/l	Cd	20 mg/l
Mo	100 mg/l	Cr	20 mg/l
Sr	100 mg/l	Cu	20 mg/l
As	50 mg/l	Bi	10 mg/l
Ba	50 mg/l	Se	10 mg/l
Ni	50 mg/l	Tl	10 mg/l
V	50 mg/l		

PerkinElmer Pure XIII - 14 components		Reference: N9303946.L1	
Volume:	100 ml	Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
Al	500 mg/l	Fe	100 mg/l
V	250 mg/l	Mn	100 mg/l
As	100 mg/l	Ni	100 mg/l
Be	100 mg/l	Pb	100 mg/l
Co	100 mg/l	Zn	100 mg/l
Cr	100 mg/l	Cd	25 mg/l
Cu	100 mg/l	Se	25 mg/l



PerkinElmer Pure XVII - 7 components		Reference: N9303948.L1	
Volume: 100 ml Matrix: in 15 % HCl/ tr. HF			
Element	Concentration	Element	Concentration
Hf	100 mg/l	Ta	100 mg/l
Ir	100 mg/l	Tl	100 mg/l
Sb	100 mg/l	Zr	100 mg/l
Sn	100 mg/l		

PerkinElmer Pure VIII - 24 components		Reference: 109492.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Al	100 mg/l	Pb	100 mg/l
Ba	100 mg/l	Li	100 mg/l
Be	100 mg/l	Mg	100 mg/l
Bi	100 mg/l	Mn	100 mg/l
B	100 mg/l	Ni	100 mg/l
Cd	100 mg/l	K	100 mg/l
Ca	100 mg/l	Se	100 mg/l
Cr	100 mg/l	Na	100 mg/l
Co	100 mg/l	Sr	100 mg/l
Cu	100 mg/l	Te	100 mg/l
Ga	100 mg/l	Tl	100 mg/l
Fe	100 mg/l	Zn	100 mg/l

Instrument Calibration Standard 3 - 5 components		Reference: N9303818.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Mg	1000 mg/l
Fe	1000 mg/l	Na	1000 mg/l
K	1000 mg/l		

Contract Lab Program Modification Standard - 12 components		Reference: N9303843.L1	
Volume: 100 ml Matrix: in 2 % HNO ₃ / 5 % HCl			
Element	Concentration	Element	Concentration
Ba	10 mg/l	Mg	10 mg/l
Be	10 mg/l	Pb	10 mg/l
Ce	10 mg/l	Rh	10 mg/l
Co	10 mg/l	Tl	10 mg/l
In	10 mg/l	U	10 mg/l
Li	10 mg/l	Y	10 mg/l

Instrument Calibration Standard 1 - 20 components		Reference: N9303816.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ / tr. Tart. Ac.			
Element	Concentration	Element	Concentration
Ag	20 mg/l	Mo	20 mg/l
Al	20 mg/l	Ni	20 mg/l
As	20 mg/l	Pb	20 mg/l
Ba	20 mg/l	Sb	20 mg/l
Be	20 mg/l	Se	20 mg/l
Cd	20 mg/l	Th	20 mg/l
Co	20 mg/l	Tl	20 mg/l
Cr	20 mg/l	U	20 mg/l
Cu	20 mg/l	V	20 mg/l
Mn	20 mg/l	Zn	20 mg/l

Instrument Calibration Standard 2 - 26 components		Reference: N9301721.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃ / tr. Tart. Ac./ tr.HF			
Element	Concentration	Element	Concentration
Ag	100 mg/l	Mn	100 mg/l
Al	100 mg/l	Mo	100 mg/l
As	100 mg/l	Na	100 mg/l
Ba	100 mg/l	Ni	100 mg/l
Be	100 mg/l	Pb	100 mg/l
Ca	100 mg/l	Sb	100 mg/l
Cd	100 mg/l	Se	100 mg/l
Co	100 mg/l	Sn	100 mg/l
Cr	100 mg/l	Sr	100 mg/l
Cu	100 mg/l	Ti	100 mg/l
Fe	100 mg/l	Tl	100 mg/l
K	100 mg/l	V	100 mg/l
Mg	100 mg/l	Zn	100 mg/l

Contract Required Detection Limit - 22 components		Reference: N9303819.L1	
Volume: 100 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration
Ca	500 mg/l	Cu	2.5 mg/l
K	500 mg/l	Zn	2 mg/l
Mg	500 mg/l	Mn	1.5 mg/l
Na	500 mg/l	Ag	1 mg/l
Al	20 mg/l	As	1 mg/l
Ba	20 mg/l	Cr	1 mg/l
Fe	10 mg/l	Tl	1 mg/l
Sb	6 mg/l	Be	0.5 mg/l
Co	5 mg/l	Cd	0.5 mg/l
V	5 mg/l	Se	0.5 mg/l
Ni	4 mg/l	Pb	0.3 mg/l

STANDARDS EQUIVALENT TO

Contract Lab Program Modification Standard - 26 components		Reference: N9301721MS.L1	
Volume:	100 ml		
Matrix:	in 5 % HNO ₃ /tr. HF/tr. Tart. Ac.		
Element	Concentration	Element	Concentration
Ag	100 mg/l	Mn	100 mg/l
Al	100 mg/l	Mo	100 mg/l
As	100 mg/l	Na	100 mg/l
Ba	100 mg/l	Ni	100 mg/l
Be	100 mg/l	Pb	100 mg/l
Ca	100 mg/l	Sb	100 mg/l
Cd	100 mg/l	Se	100 mg/l
Co	100 mg/l	Sn	100 mg/l
Cr	100 mg/l	Sr	100 mg/l
Cu	100 mg/l	Tl	100 mg/l
Fe	100 mg/l	Tl	100 mg/l
K	100 mg/l	V	100 mg/l
Mg	100 mg/l	Zn	100 mg/l

Contract Lab Program Modification Standard - 1 component		Reference: N9300253.L1
Volume:	100 ml	
Matrix:	in 5 % HNO ₃	
Element	Concentration	
Hg	10 mg/l	

Contract Lab Program Modification Standard - 12 components		Reference: N9303827.L1	
Volume:	100 ml		
Matrix:	in 5 % HNO ₃ /tr. Tart. Ac.		
Element	Concentration	Element	Concentration
Cl-	21215 mg/l	Mg	1000 mg/l
Ca	3000 mg/l	P	1000 mg/l
Fe	2500 mg/l	K	1000 mg/l
Na	2500 mg/l	S	1000 mg/l
C	2000 mg/l	Mo	20 mg/l
Al	1000 mg/l	Ti	20 mg/l

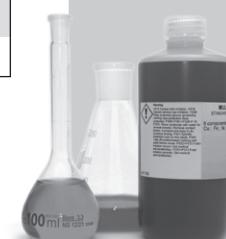
Analytes B - 11 components		Reference: N9303829.L1	
Volume:	100 ml		
Matrix:	in 2 % HNO ₃		
Element	Concentration	Element	Concentration
Cr	20 mg/l	As	10 mg/l
Co	20 mg/l	Cd	10 mg/l
Cu	20 mg/l	Se	10 mg/l
Mn	20 mg/l	Zn	10 mg/l
Ni	20 mg/l	Ag	5 mg/l
V	20 mg/l		

Memory Test 2 - 7 components		Reference: N9303836.L1	
Volume:	100 ml		
Matrix:	in H ₂ O/tr. HF/tr. HNO ₃		
Element	Concentration	Element	Concentration
Cl-	7200 mg/l	Mo	20 mg/l
C	2000 mg/l	Sb	20 mg/l
P	1000 mg/l	Ti	20 mg/l
S	1000 mg/l		

Memory Test 1 - 21 components		Reference: N9303835.L1	
Volume:	100 ml		
Matrix:	in 2 % HNO ₃		
Element	Concentration	Element	Concentration
Al	1000 mg/l	Co	20 mg/l
Ca	1000 mg/l	Cr	20 mg/l
Fe	1000 mg/l	Cu	20 mg/l
K	1000 mg/l	Mn	20 mg/l
Mg	1000 mg/l	Ni	20 mg/l
Na	1000 mg/l	Pb	20 mg/l
Ag	20 mg/l	Se	20 mg/l
As	20 mg/l	Tl	20 mg/l
Ba	20 mg/l	V	20 mg/l
Be	20 mg/l	Zn	20 mg/l
Cd	20 mg/l		

Environmental EPA Standard - Mercury		Reference: N9300223.L1
Volume:	100 ml	
Matrix:	in 5 % HNO ₃	
Element	Concentration	
Hg	100 mg/l	

Environmental EPA Standard - 6 components		Reference: N9300200.L1	
Volume:	100 ml		
Matrix:	in 2 % HNO ₃		
Element	Concentration	Element	Concentration
Pb	500 mg/l	Zn	150 mg/l
Se	200 mg/l	Mn	100 mg/l
Cd	150 mg/l	Be	50 mg/l



TCLP Standard 1 - 8 components		<u>Reference:</u> N9300241.L1				<u>Reference:</u> N9300241.L5			
		Volume: 100 ml		Matrix: in 2 % HNO ₃		Volume: 500 ml		Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration		
Ba	500 mg/l	As	25 mg/l	Pb	25 mg/l	Cd	5 mg/l		
Ag	25 mg/l	Cr	25 mg/l	Hg	100 mg/l	Se	5 mg/l		

Selenium Solution		<u>Reference:</u> N8125039.L1				<u>Reference:</u> N8125039.L5			
		Volume: 100 ml				Volume: 500 ml			
Element	Concentration								
Se	10 mg/l								

USP Elemental Impurities Solution 1 - 10 components		<u>Reference:</u> N9303957A.L1			
		Volume: 100 ml	Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration
Cu	2500 mg/kg	V	250 mg/kg		
Mn	2500 mg/kg	As	15 mg/kg		
Cr	250 mg/kg	Hg	15 mg/kg		
Mo	250 mg/kg	Pb	10 mg/kg		
Ni	250 mg/kg	Cd	5 mg/kg		

USP Elemental Impurities Solution 2 - 6 components		<u>Reference:</u> N9303957B.L1			
		Volume: 100 ml	Matrix: in 15 % HCl		
Element	Concentration	Element	Concentration	Element	Concentration
Pt	100 mg/l	Os	100 mg/l		
Pd	100 mg/l	Ru	100 mg/l		
Ir	100 mg/l	Rh	100 mg/l		

Primary Drinking Water Metals - 8 components		<u>Reference:</u> N9300216.L1			
		Volume: 100 ml	Matrix: in 2 % HNO ₃ /tr. HF		
Element	Concentration	Element	Concentration	Element	Concentration
Ba	100 mg/l	Hg	10 mg/l		
Ag	10 mg/l	Pb	10 mg/l		
As	10 mg/l	Cd	5 mg/l		
Cr	10 mg/l	Se	5 mg/l		

Secondary Drinking Water Metals - 4 components		<u>Reference:</u> N9300217.L1			
		Volume: 100 ml	Matrix: in 2 % HNO ₃ /tr. HF		
Element	Concentration	Element	Concentration	Element	Concentration
Zn	500 mg/l	Fe	30 mg/l		
Cu	100 mg/l	Mn	5 mg/l		

Trace Metals III - 6 components		<u>Reference:</u> N9300213.L1			
		Volume: 100 ml	Matrix: in 2 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration
Ba	500 mg/l	Na	500 mg/l		
Ca	500 mg/l	K	100 mg/l		
Mo	500 mg/l	Mg	100 mg/l		

Trace Metals I - 15 components		<u>Reference:</u> N9300211.L1			
		Volume: 100 ml	Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration
Al	500 mg/l	Mn	100 mg/l		
V	250 mg/l	Ni	100 mg/l		
As	100 mg/l	Pb	100 mg/l		
Be	100 mg/l	Zn	100 mg/l		
Co	100 mg/l	Cd	25 mg/l		
Cr	100 mg/l	Se	25 mg/l		
Cu	100 mg/l	Hg	10 mg/l		
Fe	100 mg/l				

STANDARDS EQUIVALENT TO

Trace Metals II - 3 components		<u>Reference:</u> N9300212.L1 Volume: 100 ml Matrix: in 2 % HNO ₃		Alternate Metals I - 11 components		<u>Reference:</u> N9300214.L1 Volume: 100 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Sb	20 mg/l	Ag	10 mg/l	Al	20 mg/l	Ni	10 mg/l
Tl	20 mg/l			Fe	20 mg/l	Zn	10 mg/l
				V	20 mg/l	Be	5 mg/l
				Co	10 mg/l	Sb	5 mg/l
				Cu	10 mg/l	Tl	5 mg/l
				Mn	10 mg/l		
Alternate Metals II - 4 components		<u>Reference:</u> N9300215.L1 Volume: 100 ml Matrix: in 2 % HNO ₃		<u>Reference:</u> N9303952.L5 Volume: 500 ml Matrix: in 2 % HNO ₃			
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Ca	500 mg/l	Na	500 mg/l	K	100 mg/l	Mg	100 mg/l
Internal Standard Mix - 7 components		<u>Reference:</u> N9303832.L1 Volume: 100 ml Matrix: in 5 % HNO ₃		<u>Reference:</u> N9303832.L5 Volume: 500 ml Matrix: in 5 % HNO ₃			
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Bi	10 mg/l	In	10 mg/l	Sc	10 mg/l	Y	10 mg/l
Ge	10 mg/l	Li	10 mg/l	Tb	10 mg/l		
Universal Data Acquisition Standard 2 - 29 components		<u>Reference:</u> N9300233.L1 Volume: 100 ml Matrix: in 5 % HNO ₃		Universal Data Acquisition Standard 1 - 17 components			
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	10 mg/l	Li	10 mg/l	Ce	10 mg/l	Pr	10 mg/l
As	10 mg/l	Mg	10 mg/l	Dy	10 mg/l	Sc	10 mg/l
Ba	10 mg/l	Mn	10 mg/l	Er	10 mg/l	Sm	10 mg/l
Be	10 mg/l	Ni	10 mg/l	Eu	10 mg/l	Tb	10 mg/l
Bi	10 mg/l	K	10 mg/l	Gd	10 mg/l	Th	10 mg/l
Cd	10 mg/l	Rb	10 mg/l	Ho	10 mg/l	Tm	10 mg/l
Ca	10 mg/l	Se	10 mg/l	La	10 mg/l	Y	10 mg/l
Cs	10 mg/l	Ag	10 mg/l	Lu	10 mg/l	Yb	10 mg/l
Cr	10 mg/l	Na	10 mg/l	Nd	10 mg/l		
Co	10 mg/l	Sr	10 mg/l				
Cu	10 mg/l	Ti	10 mg/l				
Ga	10 mg/l	U	10 mg/l				
In	10 mg/l	V	10 mg/l				
Fe	10 mg/l	Zn	10 mg/l				
Pb	10 mg/l						
Universal Data Acquisition Standard 3 - 9 components		<u>Reference:</u> N9300234.L1 Volume: 100 ml Matrix: in 5 % HNO ₃		Universal Data Acquisition Standard 1 - 17 components			
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Sb	10 mg/l	Pt	10 mg/l				
Au	10 mg/l	Rh	10 mg/l				
Hf	10 mg/l	Ru	10 mg/l				
Ir	10 mg/l	Te	10 mg/l				
Pd	10 mg/l						



Multi-Element Internal Standard - 7 components		<u>Reference: N9303834.L1</u>	
Element	Concentration	Element	Concentration
Bi	10 mg/l	Sc	10 mg/l
Ho	10 mg/l	Tb	10 mg/l
In	10 mg/l	Y	10 mg/l
6Li	10 mg/l		

Multi-Element Solution 1 - 9 components		<u>Reference: N9300231.L1</u>	
Element	Concentration	Element	Concentration
Be	10 mg/l	Mg	10 mg/l
Bi	10 mg/l	Ni	10 mg/l
Ce	10 mg/l	Pb	10 mg/l
Co	10 mg/l	U	10 mg/l
In	10 mg/l		

Multi-Element Solution 3 with Hg - 29 components		<u>Reference: N9301720.L1</u>	
Element	Concentration	Element	Concentration
Al	10 mg/l	Li	10 mg/l
As	10 mg/l	Mg	10 mg/l
Ba	10 mg/l	Mn	10 mg/l
Be	10 mg/l	Ni	10 mg/l
Bi	10 mg/l	K	10 mg/l
Cd	10 mg/l	Rb	10 mg/l
Ca	10 mg/l	Se	10 mg/l
Cs	10 mg/l	Ag	10 mg/l
Cr	10 mg/l	Na	10 mg/l
Co	10 mg/l	Sr	10 mg/l
Cu	10 mg/l	Ti	10 mg/l
Ga	10 mg/l	U	10 mg/l
In	10 mg/l	V	10 mg/l
Fe	10 mg/l	Zn	10 mg/l
Pb	10 mg/l		

Perkin Elmer Pure I - 19 components		<u>Reference: N9303940.L1</u>	
Element	Concentration	Element	Concentration
Tl	400 mg/l	Co	20 mg/l
Bi	200 mg/l	Cu	20 mg/l
In	200 mg/l	Zn	20 mg/l
Pb	200 mg/l	B	15 mg/l
Ga	150 mg/l	Fe	15 mg/l
Al	100 mg/l	Ba	5 mg/l
Ni	50 mg/l	Mn	5 mg/l
Ag	50 mg/l	Be	1 mg/l
Cr	25 mg/l	Sr	1 mg/l
Cd	20 mg/l		

Initial Calibration Verification Standard 2 - 2 components		<u>Reference: N9303826.L1</u>	
Element	Concentration	Element	Concentration
Sn	10 mg/l	Ti	10 mg/l

Initial Calibration Verification Standard 1 - 26 components		<u>Reference: N9303825.L1</u>	
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cr	10 mg/l
Fe	1000 mg/l	Cu	10 mg/l
K	1000 mg/l	Mn	10 mg/l
Mg	1000 mg/l	Mo	10 mg/l
Na	1000 mg/l	Ni	10 mg/l
Sr	1000 mg/l	Pb	10 mg/l
Ag	10 mg/l	Sb	10 mg/l
Al	10 mg/l	Se	10 mg/l
As	10 mg/l	Tl	10 mg/l
Ba	10 mg/l	V	10 mg/l
Be	10 mg/l	Zn	10 mg/l
Cd	10 mg/l	Th	10 mg/l
Co	10 mg/l	U	10 mg/l

Elan 6100 DRC Setup/Stab/Masscal Solution - 12 components		<u>Reference: N8125035.L1</u>		<u>Reference: N8125035.L5</u>	
Element	Concentration	Element	Concentration	Element	Concentration
Ba	10 ug/l	Ce	1 ug/l	In	1 ug/l
Al	1 ug/l	Cr	1 ug/l	Pb	1 ug/l
Cd	1 ug/l	Cu	1 ug/l	Mg	1 ug/l

STANDARDS EQUIVALENT TO

Elan 9000/6100 Setup/ Stability/Masscal Solution - 9 components		<u>Reference:</u> N8125030.L1			<u>Reference:</u> N8125030.1L		
Volume: 100 ml Matrix: in 1 % HNO ₃			Volume: 1000 ml Matrix: in 1 % HNO ₃				
Element	Concentration	Element	Concentration	Element	Concentration		
Mg	10 ug/l	Cd	10 ug/l	Ce	10 ug/l		
Cu	10 ug/l	In	10 ug/l	Pb	10 ug/l		
Rh	10 ug/l	Ba	10 ug/l	U	10 ug/l		

Elan 9000/6X00 Dual-Detector Calibration Solution - 5 components		<u>Reference:</u> N8125032.L1			<u>Reference:</u> N8125032.1L		
Volume: 100 ml Matrix: in 1 % HNO ₃			Volume: 1000 ml Matrix: in 1 % HNO ₃				
Element	Concentration	Element	Concentration	Element	Concentration		
Cd	200 ug/l	Pb	200 ug/l	Rh	200 ug/l		
Cu	200 ug/l	Mg	200 ug/l				

Elan 6000/5000 Plasma Setup Solution - 11 components		<u>Reference:</u> N8122014.L1			<u>Reference:</u> N8122014.L5		
Volume: 100 ml Matrix: in 1 % HNO ₃			Volume: 500 ml Matrix: in 1 % HNO ₃				
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Ba	10 ug/l	Cu	10 ug/l	Mg	10 ug/l	Tb	10 ug/l
Cd	10 ug/l	Ge	10 ug/l	Rh	10 ug/l	Tl	10 ug/l
Ce	10 ug/l	Pb	10 ug/l	Sc	10 ug/l		

SmartTune Solution for Standard ELANs/DRC-e - 9 components		<u>Reference:</u> N8125040.L1	
Volume: 100 ml Matrix: in 1 % HNO ₃			
Element	Concentration	Element	Concentration
Be	10 ug/l	Ce	10 ug/l
Mg	10 ug/l	Ba	10 ug/l
Co	10 ug/l	Pb	10 ug/l
In	10 ug/l	U	10 ug/l
Rh	10 ug/l		

SmartTune Solution for DRC/DRCplus/DRC II - 10 components		<u>Reference:</u> N8125041.L5			<u>Reference:</u> N8125041.1L		
Volume: 500 ml Matrix: in 0.5 % HNO ₃			Volume: 1000 ml Matrix: in 0.5 % HNO ₃				
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Ba	10 ug/l	Co	1 ug/l	Pb	1 ug/l	U	1 ug/l
Be	1 ug/l	In	1 ug/l	Mg	1 ug/l		
Ce	1 ug/l	Fe	1 ug/l	Th	1 ug/l		

NexION Setup Solution - 8 components		<u>Reference:</u> N8145051.L1			<u>Reference:</u> N8145051.L5		
Volume: 100 ml Matrix: in 2 % HNO ₃ /5 % HCl			Volume: 500 ml Matrix: in 2 % HNO ₃ /5 % HCl				
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Be	1 ug/l	Fe	1 ug/l	Li	1 ug/l	Pb	1 ug/l
Ce	1 ug/l	In	1 ug/l	Mg	1 ug/l	U	1 ug/l



NexION KED Setup Solution - 2 components	Reference: N8145052.L1 Volume: 100 ml Matrix: in 1 % HCl	Reference: N8145052.L5 Volume: 500 ml Matrix: in 1 % HCl	
Element	Concentration	Element	Concentration
Co	10 ug/l	Ce	1 ug/l
NexION 300Q Non-cell Stability Solution - 4 components	Reference: N8145053.L5 Volume: 500 ml Matrix: in 1 % HNO ₃	NexION 300X/D/S Cell Stability Solution - 9 components	Reference: N8145054.L5 Volume: 500 ml Matrix: in 1 % HNO ₃
Element	Concentration	Element	Concentration
Cd	1 ug/l	Mg	1 ug/l
Cu	1 ug/l	Pb	1 ug/l
NexION Standard/DRC Mode Detection Limit Blank Solution	Reference: N8145055.L1 Volume: 100 ml Matrix: in 0.5 % HNO ₃	NexION Standard/DRC Mode Detection Limit Solution - 6 components	Reference: N8145056.L1 Volume: 100 ml Matrix: in 0.5 % HNO ₃
NexION KED Mode Detection Limit Solution - 3 components	Reference: N8145058.L1 Volume: 500 ml Matrix: in 1 % HCl	Element	Concentration
Element	Concentration	Element	Concentration
V	10 ug/l	Se	10 ug/l
As	10 ug/l		
NexION AFT Multi-Element Solution - 29 components	Reference: N8145061.L1 Volume: 100 ml Matrix: in 2 % HNO ₃	NexION Dual Detector Solution - 13 components	Reference: N8145059.L1 Volume: 100 ml Matrix: in 2 % HNO ₃
Element	Concentration	Element	Concentration
Ag	2 ug/l	K	2 ug/l
Al	2 ug/l	Li	2 ug/l
As	2 ug/l	Mg	2 ug/l
Ba	2 ug/l	Mn	2 ug/l
Be	2 ug/l	Na	2 ug/l
Bi	2 ug/l	Ni	2 ug/l
Ca	2 ug/l	Pb	2 ug/l
Cd	2 ug/l	Rb	2 ug/l
Cr	2 ug/l	Se	2 ug/l
Co	2 ug/l	Sr	2 ug/l
Cs	2 ug/l	Tl	2 ug/l
Cu	2 ug/l	U	2 ug/l
Fe	2 ug/l	V	2 ug/l
Ga	2 ug/l	Zn	2 ug/l
In	2 ug/l		
NexION AFT Single-Element Solution - 1 components	Reference: N8145060.L1 Volume: 100 ml Matrix: in 2 % HNO ₃	Element	Concentration
Element	Concentration	Fe	2 ug/l
NexION KED Mode Detection Limit Blank Solution	Reference: N8145057.L1 Volume: 100 ml Matrix: in 1 % HCl		

STANDARDS EQUIVALENT TO

Environmental Standard - 2 components		<u>Reference:</u> N9307806.L1	
Volume: 80 ml		Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Al	1000 mg/l	Fe	1000 mg/l

Environmental Standard - 3 components		<u>Reference:</u> N9307807.L1	
Volume: 500 ml		Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
B	100 mg/l	U	100 mg/l
Th	100 mg/l		

Internal Standard Mix - 8 components		<u>Reference:</u> N9307808.L1	
Volume: 100 ml		Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
Sc	50 mg/l	6Li	10 mg/l
Ge	20 mg/l	Rh	10 mg/l
In	10 mg/l	Tb	10 mg/l
Ir	10 mg/l	Y	10 mg/l

Internal Standard Mix - 6 components		<u>Reference:</u> N9307738.L1	
Volume: 100 ml		Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
Sc	200 mg/l	Ir	10 mg/l
Ga	20 mg/l	Rh	10 mg/l
In	10 mg/l	Tm	10 mg/l

GF AAS Multi element standard XVIII - 16 components		<u>Reference:</u> N9300244.L1	
Volume: 100 ml		Matrix: in 5 % HNO ₃ /tr. HF	
Element	Concentration	Element	Concentration
Sb	100 mg/l	Cu	50 mg/l
Al	100 mg/l	Ni	50 mg/l
As	100 mg/l	Cr	20 mg/l
Pb	100 mg/l	Fe	20 mg/l
Se	100 mg/l	Mn	20 mg/l
Tl	100 mg/l	Ag	10 mg/l
Ba	50 mg/l	Be	5 mg/l
Co	50 mg/l	Cd	5 mg/l

AA Test Mix		<u>Reference:</u> 02900540.L1	
Volume: 100 ml		Matrix: in 2 % HCl	
Element	Concentration	Element	Concentration
Ca	50 mg/l	Ni	50 mg/l
Cr	50 mg/l	K	20 mg/l
Cu	50 mg/l	Na	10 mg/l
Fe	50 mg/l	Zn	10 mg/l

Environmental Standards - 4 components		<u>Reference:</u> N9307805.L1	
Volume: 100 ml		Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Mg	1002 mg/l
K	1001 mg/l	Na	1003 mg/l



Standards equivalent to Merck

Calibration Standard (I) - 19 components		Reference: 115474.L1	
Element	Concentration	Element	Concentration
Tl	400 mg/l	Co	20 mg/l
Bi	200 mg/l	Cu	20 mg/l
In	200 mg/l	Zn	20 mg/l
Pb	200 mg/l	B	15 mg/l
Ga	150 mg/l	Fe	15 mg/l
Al	100 mg/l	Ba	5 mg/l
Ni	50 mg/l	Mn	5 mg/l
Ag	50 mg/l	Be	1 mg/l
Cr	25 mg/l	Sr	1 mg/l
Cd	20 mg/l		

ICP multi-element standard solution II - 3 components		Reference: 115708.L1	
Element	Concentration	Element	Concentration
Li	250 mg/l	Na	1000 mg/l
K	10000 mg/l		

Calibration Standard Earth Alkali components (III) - 4 components		Reference: 115626.L1	
Element	Concentration	Element	Concentration
Ba	1000 mg/l	Mg	1000 mg/l
Ca	1000 mg/l	Sr	1000 mg/l

Calibration Standard (IV) - 23 components		Reference: 111355.L1	
Element	Concentration	Element	Concentration
Al	1000 mg/l	Pb	1000 mg/l
Ba	1000 mg/l	Li	1000 mg/l
Bi	1000 mg/l	Mg	1000 mg/l
B	1000 mg/l	Mn	1000 mg/l
Cd	1000 mg/l	Ni	1000 mg/l
Ca	1000 mg/l	K	1000 mg/l
Cr	1000 mg/l	Ag	1000 mg/l
Co	1000 mg/l	Na	1000 mg/l
Cu	1000 mg/l	Sr	1000 mg/l
Ga	1000 mg/l	Tl	1000 mg/l
In	1000 mg/l	Zn	1000 mg/l
Fe	1000 mg/l		

ICP multi-element standard solution VI - 30 components		Reference: 110580.L1	
Element	Concentration	Element	Concentration
Ca	1000 mg/l	K	10 mg/l
As	100 mg/l	Pb	10 mg/l
B	100 mg/l	Li	10 mg/l
Be	100 mg/l	Mg	10 mg/l
Fe	100 mg/l	Mn	10 mg/l
Se	100 mg/l	Mo	10 mg/l
Zn	100 mg/l	Ni	10 mg/l
Al	10 mg/l	Rb	10 mg/l
Ba	10 mg/l	Na	10 mg/l
Bi	10 mg/l	Ag	10 mg/l
Cd	10 mg/l	Sr	10 mg/l
Co	10 mg/l	Te	10 mg/l
Cr	10 mg/l	Tl	10 mg/l
Cu	10 mg/l	U	10 mg/l
Ga	10 mg/l	V	10 mg/l

ICP multi-element standard IX - 9 components		Reference: 109494.L1	
Element	Concentration	Element	Concentration
As	100 mg/l	Hg	100 mg/l
Be	100 mg/l	Ni	100 mg/l
Cd	100 mg/l	Se	100 mg/l
Cr	100 mg/l	Tl	100 mg/l
Pb	100 mg/l		

Merck ICP Multi-element standard XI - 7 components		Reference: 109491.L1	
Element	Concentration	Element	Concentration
Zn	2 500 mg/l	Ni	200 mg/l
Cr	900 mg/l	Cd	10 mg/l
Pb	900 mg/l	Hg	8 mg/l
Cu	800 mg/l		

STANDARDS EQUIVALENT TO

Calibration Standard (VIII) - 24 components		Reference: 109492.L1	
		Volume: 100 ml Matrix: in 2 % HNO ₃ /tr.HCl	
Element	Concentration	Element	Concentration
Al	100 mg/l	Pb	100 mg/l
Ba	100 mg/l	Li	100 mg/l
Be	100 mg/l	Mg	100 mg/l
Bi	100 mg/l	Mn	100 mg/l
B	100 mg/l	Ni	100 mg/l
Cd	100 mg/l	K	100 mg/l
Ca	100 mg/l	Se	100 mg/l
Cr	100 mg/l	Na	100 mg/l
Co	100 mg/l	Sr	100 mg/l
Cu	100 mg/l	Te	100 mg/l
Ga	100 mg/l	Tl	100 mg/l
Fe	100 mg/l	Zn	100 mg/l

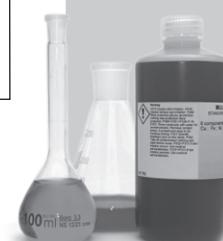
ICP multi-element standard solution X - 23 components		Reference: 109493.L1	
		Volume: 100 ml Matrix: in 5 % HNO ₃ /tr. HF	
Element	Concentration	Element	Concentration
Ca	35 000 mg/l	Zn	50 mg/l
Mg	15 000 mg/l	Mn	30 mg/l
Na	8 000 mg/l	Co	25 mg/l
K	3 000 mg/l	Pb	25 mg/l
B	100 mg/l	Be	20 mg/l
Fe	100 mg/l	Cd	20 mg/l
Mo	100 mg/l	Cr	20 mg/l
Sr	100 mg/l	Cu	20 mg/l
As	50 mg/l	Bi	10 mg/l
Ba	50 mg/l	Se	10 mg/l
Ni	50 mg/l	Tl	10 mg/l
V	50 mg/l		

ICP Multi-element standard Solution (XII) - 8 components		Reference: 109490.L1	
		Volume: 100 ml Matrix: in 5 % HCl	
Element	Concentration	Element	Concentration
As	1000 mg/l	Si	1000 mg/l
Mo	1000 mg/l	W	1000 mg/l
P	1000 mg/l	V	1000 mg/l
S	1000 mg/l	Zr	1000 mg/l

Calibration Standard Trace Metals (XIII) - 15 components		Reference: 109480.L1	
		Volume: 100 ml Matrix: in 5 % HNO ₃ /tr. HF	
Element	Concentration	Element	Concentration
Al	500 mg/l	Pb	100 mg/l
V	250 mg/l	Mn	100 mg/l
As	100 mg/l	Ni	100 mg/l
Be	100 mg/l	Zn	100 mg/l
Cr	100 mg/l	Cd	25 mg/l
Co	100 mg/l	Se	25 mg/l
Cu	100 mg/l	Hg	5 mg/l
Fe	100 mg/l		

Wavelength Calibration Standard (XIV) - 11 components		Reference: 109481.L1		Reference: 109481.L5	
Element	Concentration	Element	Concentration	Element	Concentration
P	100 mg/l	As	20 mg/l	Mn	20 mg/l
K	100 mg/l	La	20 mg/l	Mo	20 mg/l
S	100 mg/l	Li	20 mg/l	Ni	20 mg/l

ICP Multi-Element Standard Solution XV - 8 components		Reference: 109482.L1		Reference: 109482.L5	
Element	Concentration	Element	Concentration	Element	Concentration
Ba	1 mg/l	La	10 mg/l	Na	10 mg/l
Ca	1 mg/l	Li	10 mg/l	Sr	10 mg/l
K	50 mg/l	Mn	10 mg/l		



Calibration Standard - Quality Control (XVI) - 21 components		Reference: 109487.L1	
		Volume: 100 ml Matrix: in 2 % HNO ₃	
Element	Concentration	Element	Concentration
Sb	100 mg/l	Mg	100 mg/l
As	100 mg/l	Mn	100 mg/l
Be	100 mg/l	Mo	100 mg/l
Cd	100 mg/l	Ni	100 mg/l
Ca	100 mg/l	Sr	100 mg/l
Cr	100 mg/l	Tl	100 mg/l
Co	100 mg/l	Ti	100 mg/l
Cu	100 mg/l	Se	100 mg/l
Fe	100 mg/l	V	100 mg/l
Pb	100 mg/l	Zn	100 mg/l
Li	100 mg/l		

ICP multi-element standard solution XVII - 7 components		Reference: 109495.L1	
		Volume: 100 ml Matrix: in 15 % HCl	
Element	Concentration	Element	Concentration
Sb	100 mg/l	Sn	100 mg/l
Hf	100 mg/l	Ti	100 mg/l
Ir	100 mg/l	Zr	100 mg/l
Ta	100 mg/l		

Wavelength Calibration Standard (V) - 26 components		Reference: 110714.L1	
		Volume: 100 ml Matrix: in 5 % HCl	
Element	Concentration	Element	Concentration
K	100 mg/l	Cd	2 mg/l
Al	20 mg/l	Cr	2 mg/l
As	20 mg/l	Cu	2 mg/l
Pb	20 mg/l	Fe	2 mg/l
Se	20 mg/l	Li	2 mg/l
Na	20 mg/l	Ti	2 mg/l
Te	20 mg/l	Zn	2 mg/l
Ca	10 mg/l	Be	1 mg/l
P	10 mg/l	Mg	1 mg/l
Hg	5 mg/l	Mn	1 mg/l
Ni	5 mg/l	Sc	1 mg/l
B	2 mg/l	Sr	1 mg/l
Ba	2 mg/l	Y	1 mg/l

GF AAS Multi element standard XVIII - 16 components		Reference: 109500.L1	
		Volume: 100 ml Matrix: in 5 % HNO ₃	
Element	Concentration	Element	Concentration
Sb	100 mg/l	Cu	50 mg/l
Al	100 mg/l	Ni	50 mg/l
As	100 mg/l	Cr	20 mg/l
Pb	100 mg/l	Fe	20 mg/l
Se	100 mg/l	Mn	20 mg/l
Tl	100 mg/l	Ag	10 mg/l
Ba	50 mg/l	Be	5 mg/l
Co	50 mg/l	Cd	5 mg/l

IC Multi-element standard VII - 9 components		Reference: 110322.L1	
		Volume: 100 ml Matrix: in 0.1 % HNO ₃	
Element	Concentration	Element	Concentration
NH ₄ ⁺	100 mg/l	Mg ²⁺	100 mg/l
Ba ²⁺	100 mg/l	Mn ²⁺	100 mg/l
Ca ²⁺	100 mg/l	Na ⁺	100 mg/l
K ⁺	100 mg/l	Sr ²⁺	100 mg/l
Li ⁺	100 mg/l		

Tuning Standard (XXIV) - 15 components		Reference: 109411.L1	Reference: 109411.L5
			Volume: 500 ml Matrix: in 1 % HNO ₃
Element	Concentration	Element	Concentration
K	500 mg/l	Cd	50 mg/l
Al	50 mg/l	Cr	50 mg/l
As	50 mg/l	Co	50 mg/l
Ba	50 mg/l	Cu	50 mg/l
		Pb	50 mg/l
		Mn	50 mg/l
		Mo	50 mg/l
		Ni	50 mg/l
		Se	50 mg/l
		Sr	50 mg/l
		Zn	50 mg/l

STANDARDS EQUIVALENT TO

ICP-MS Detection Limit Standard (XIX) - 5 components		<u>Reference: 109496.L1</u>	
		Volume:	100 ml
		Matrix:	in 1 % HNO ₃
Element	Concentration	Element	Concentration
Be	10 µg/l	Tl	10 µg/l
Co	10 µg/l	U	10 µg/l
In	10 µg/l		

ICP-MS Calibration Standard (XXI) - 29 components		<u>Reference: 109498.L1</u>	
		Volume:	100 ml
		Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
Al	10 mg/l	Li	10 mg/l
As	10 mg/l	Mg	10 mg/l
Ba	10 mg/l	Mn	10 mg/l
Be	10 mg/l	Ni	10 mg/l
Bi	10 mg/l	K	10 mg/l
Ca	10 mg/l	Se	10 mg/l
Cd	10 mg/l	Ag	10 mg/l
Co	10 mg/l	Na	10 mg/l
Cr	10 mg/l	Rb	10 mg/l
Cs	10 mg/l	Sr	10 mg/l
Cu	10 mg/l	Tl	10 mg/l
Fe	10 mg/l	U	10 mg/l
Ga	10 mg/l	V	10 mg/l
In	10 mg/l	Zn	10 mg/l
Pb	10 mg/l		

ICP-MS Optimization Standard (XII) - 5 components		<u>Reference: 109499.L1</u>	
		Volume:	100 ml
		Matrix:	in 2 % HNO ₃ /tr HCl
Element	Concentration	Element	Concentration
Cd	200 µg/l	Mg	200 µg/l
Cu	200 µg/l	Rh	200 µg/l
Pb	200 µg/l		

ICP multi-element standard solution XX - 11 components		<u>Reference: 109497.L1</u>		<u>Reference: 109497.L5</u>	
		Volume:	100 ml	Volume:	500 ml
		Matrix:	in 1 % HNO ₃	Matrix:	in 1 % HNO ₃
Element	Concentration	Element	Concentration	Element	Concentration
Mg	10 µg/l	Pb	10 µg/l	Tl	10 µg/l
Cu	10 µg/l	Sc	10 µg/l	Ce	10 µg/l
Cd	10 µg/l	Rh	10 µg/l	Ge	10 µg/l

Mass Calibration Standard (XXIII)- 15 components		<u>Reference: 109410.L1</u>		<u>Reference: 109411.L5</u>	
		Volume:	100 ml	Volume:	500 ml
		Matrix:	in 5 % HNO ₃ /tr HCl	Matrix:	in 5 % HNO ₃ /tr HCl
Element	Concentration	Element	Concentration	Element	Concentration
Ba	1 µg/l	In	1 µg/l	K	1 µg/l
B	1 µg/l	Fe	1 µg/l	Rh	1 µg/l
Co	1 µg/l	Li	1 µg/l	Sc	1 µg/l
Ga	1 µg/l	Lu	1 µg/l	Na	1 µg/l



Standards equivalent to Jobin Yvon

Standard Quality Control for ICP Ultima family - 5 components		<u>Reference:</u> JYICP-QC1.L1 Volume: 100 ml Matrix: in 5 % HNO ₃			<u>Reference:</u> JYICP-QC1.L5 Volume: 500 ml Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration		
K	1500 mg/l	Al	500 mg/l	Cd	100 mg/l		
Pb	1000 mg/l	Mg	500 mg/l				

Standard Quality Control for Chlorine		<u>Reference:</u> JYICP-QC2.L1 Volume: 100 ml Matrix: in H ₂ O			<u>Reference:</u> JYICP-QC2.L5 Volume: 500 ml Matrix: in H ₂ O		
Element	Concentration						
Cl ⁻	10 000 mg/l						

Standard Quality Control for Testing ICP Activa Family - 5 components		<u>Reference:</u> JYICP-QCACT.L1 Volume: 100 ml Matrix: in 5 % HNO ₃			Standard for Semi- quantitative Method - 7 components		<u>Reference:</u> JYICP-MIX7.L1 Volume: 100 ml Matrix: in 5 % HNO ₃ / tr. HF
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	100 mg/l	Mg	100 mg/l	K	1000 mg/l	B	100 mg/l
Cd	100 mg/l	Pb	100 mg/l	Ag	100 mg/l	Na	100 mg/l
K	100 mg/l			Al	100 mg/l	Si	50 mg/l
				Ba	100 mg/l		

Instrument Check Standard - 9 components		<u>Reference:</u> JYICP-MIX9.L1 Volume: 100 ml Matrix: in 5 % HNO ₃			<u>Reference:</u> JYICP-MIX9.L5 Volume: 500 ml Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	50 mg/l	Cr	50 mg/l	P	50 mg/l		
As	50 mg/l	Cu	50 mg/l	K	50 mg/l		
Co	50 mg/l	Pb	50 mg/l	Na	50 mg/l		

Instrument Check Standard - 3 components		<u>Reference:</u> JYICP-DIAG.L1 Volume: 100 ml Matrix: in 5 % HNO ₃			<u>Reference:</u> JYICP-DIAG.L5 Volume: 500 ml Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Ba	1000 mg/l	Mg	1000 mg/l	Zn	1000 mg/l		

Standard for determination of 4 main components		<u>Reference:</u> JYICP-MIXMAJ.L1 Volume: 100 ml Matrix: in 5 % HNO ₃			<u>Reference:</u> JYICP-MIXMAJ.L5 Volume: 500 ml Matrix: in 5 % HNO ₃		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Ca	5000 mg/l	K	5000 mg/l	Na	5000 mg/l	Mg	5000 mg/l

Standard for Semi-quantitative Method - 21 components		Reference: JYICP-MIX21.L1	
		Volume:	100 ml
		Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
As	100 mg/l	Mo	100 mg/l
Be	100 mg/l	Ni	100 mg/l
Ca	100 mg/l	Pb	100 mg/l
Cd	100 mg/l	Sb	100 mg/l
Co	100 mg/l	Se	100 mg/l
Cr	100 mg/l	Sr	100 mg/l
Cu	100 mg/l	Tl	100 mg/l
Fe	100 mg/l	Tl	100 mg/l
Li	100 mg/l	V	100 mg/l
Mg	100 mg/l	Zn	100 mg/l
Mn	100 mg/l		

Quality Control Standard - 7 components		Reference: JYICP-MIX7HSI.L1	
		Volume:	100 ml
		Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
K	1000 mg/l	Ba	100 mg/l
Si	500 mg/l	Na	100 mg/l
Al	100 mg/l	Ag	50 mg/l
B	100 mg/l		

Standard for the Determination of traces of 5 heavy metals		Reference: JYICP-MIXHM.L1	
		Volume:	100 ml
		Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
As	100 mg/l	Se	50 mg/l
Tl	100 mg/l	Pb	30 mg/l
Cd	50 mg/l		

Quality Control - 23 components		Reference: JYICP-MIX23.L1			Reference: JYICP-MIX23.L5		
		Volume:	100 ml	Matrix:	500 ml	Matrix:	in 10 % HNO ₃
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	1000 mg/l	Cr	1000 mg/l	Pb	1000 mg/l	Ag	1000 mg/l
Ba	1000 mg/l	Co	1000 mg/l	Li	1000 mg/l	Na	1000 mg/l
Bi	1000 mg/l	Cu	1000 mg/l	Mg	1000 mg/l	Sr	1000 mg/l
B	1000 mg/l	Ga	1000 mg/l	Mn	1000 mg/l	Tl	1000 mg/l
Cd	1000 mg/l	In	1000 mg/l	Ni	1000 mg/l	Zn	1000 mg/l
Ca	1000 mg/l	Fe	1000 mg/l	K	1000 mg/l		

Standards equivalent to NIST

Trace metals in Water - 30 components		Reference: 1643.L1	
		Volume:	100 ml
		Matrix:	in 5 % HNO ₃
Element	Concentration	Element	Concentration
Ag	1 ug/l	Mg	8000 ug/l
Al	142 ug/l	Mn	39 ug/l
As	60 ug/l	Mo	121 ug/l
B	158 ug/l	Na	21000 ug/l
Ba	544 ug/l	Ni	62 ug/l
Be	14 ug/l	Pb	20 ug/l
Bi	14 ug/l	Rb	14 ug/l
Ca	32000 ug/l	Re	113 ug/l
Cd	7 ug/l	Sb	58 ug/l
Co	27 ug/l	Se	12 ug/l
Cr	20 ug/l	Sr	323 ug/l
Cu	23 ug/l	Te	1 ug/l
Fe	98 ug/l	Tl	7 ug/l
K	2000 ug/l	V	38 ug/l
Li	17 ug/l	Zn	79 ug/l

Mercury In Water		Reference: 1641d.L1	
		Volume:	100 ml
		Matrix:	in 2 % HNO ₃
Element	Concentration	Element	Concentration
Hg	1.557 mg/kg		



Standards equivalent to Metrohm

Mixed Anions Standard - 7 components		Reference: REAIC1020.L1	
Volume: 100 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
F-	2 mg/l	Br-	10 mg/l
PO43-	10 mg/l	Cl-	5 mg/l
NO2-	5 mg/l	SO42-	10 mg/l
NO3-	10 mg/l		

Mixed Anions Standard - 7 components		Reference: REAIC1025.L1	
Volume: 100 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
F-	4 mg/l	Br-	8 mg/l
PO43-	4 mg/l	Cl-	100 mg/l
NO2-	8 mg/l	SO42-	100 mg/l
NO3-	8 mg/l		

Mixed Anions Standard - 7 components		Reference: REAIC1026.L1	
Volume: 100 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
F-	0.5 mg/l	Br-	1 mg/l
PO43-	0.5 mg/l	Cl-	12.5 mg/l
NO2-	1 mg/l	SO42-	12.5 mg/l
NO3-	1 mg/l		

Mixed Anions Standard - 7 components		Reference: REAIC1035.L1	
Volume: 100 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
F-	100 mg/l	Br-	100 mg/l
PO43-	100 mg/l	Cl-	100 mg/l
NO2-	100 mg/l	SO42-	100 mg/l
NO3-	100 mg/l		

Mixed Anions Standard - 7 components		Reference: REAIC1040.L1	
Volume: 100 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
F-	100 µg/l	Br-	100 µg/l
PO43-	100 µg/l	Cl-	100 µg/l
NO2-	100 µg/l	SO42-	100 µg/l
NO3-	100 µg/l		

Metrohm Peak - chloride/sulfate standard - 2 components		Reference: REAIC105001.L5	
Volume: 500 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
Cl-	0.5 mg/l	SO42-	0.5 mg/l

Metrohm Peak - chloride/sulfate standard - 2 components		Reference: REAIC10501.L5	
Volume: 500 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
Cl-	2 mg/l	SO42-	2 mg/l

Metrohm Peak - chloride/sulfate standard - 2 components		Reference: REAIC105005.L5	
Volume: 500 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
Cl-	5 mg/l	SO42-	5 mg/l

Metrohm Peak - chloride/sulfate standard - 2 components		Reference: REAIC105006.L5	
Volume: 500 ml Matrix: in H ₂ O			
Element	Concentration	Element	Concentration
Cl-	10 mg/l	SO42-	10 mg/l

STANDARDS EQUIVALENT TO

Metrohm Peak - chloride/sulfate standard - 2 components		<u>Reference:</u> REAIC10551.L5	
Volume: 500 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
Cl-	10 mg/l	SO42-	10 mg/l

Calibration H3PO4 & SO4		<u>Reference:</u> REAIC10551.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
H3PO4	150 mg/l	SO42-	10 mg/l

Calibration H3PO4 & SO4		<u>Reference:</u> REAIC10552.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
H3PO4	250 mg/l	SO42-	10 mg/l

Calibration H3PO4 & SO4		<u>Reference:</u> REAIC10553.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
H3PO4	350 mg/l	SO42-	10 mg/l

Calibration H3PO4 & SO4		<u>Reference:</u> REAIC10554.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
H3PO4	450 mg/l	SO42-	10 mg/l

Calibration H3PO4 & SO4		<u>Reference:</u> REAIC10555.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
H3PO4	550 mg/l	SO42-	10 mg/l

Calibration H3PO4 & SO4		<u>Reference:</u> REAIC10556.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
H3PO4	650 mg/l	SO42-	10 mg/l

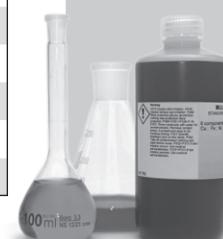
Calibration H3PO4 & SO4 Check Standard		<u>Reference:</u> REAIC1056.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
H3PO4	545 mg/l	SO42-	10 mg/l

Mixed Cations Standard - 6 components		<u>Reference:</u> REAIC1220.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
Li+	1 mg/l	K+	10 mg/l
Na+	5 mg/l	Ca 2+	10 mg/l
NH4+	5 mg/l	Mg 2+	10 mg/l

Mixed Cations Standard - 6 components		<u>Reference:</u> REAIC1230.L1	
Volume: 100 ml		Matrix: in H ₂ O	
Element	Concentration	Element	Concentration
Li+	100 mg/l	K+	100 mg/l
Na+	100 mg/l	Ca 2+	100 mg/l
NH4+	100 mg/l	Mg 2+	100 mg/l

Mixed Cations Standard - 5 components		<u>Reference:</u> REAIC1225.L1	
Volume: 100 ml		Matrix: in H ₂ O/tr. HNO ₃	
Element	Concentration	Element	Concentration
Cu 2+	1 mg/l	Ni 2+	1 mg/l
Fe 3+	1 mg/l	Zn 2+	1 mg/l
Mn 2+	1 mg/l		

Mixed Cations Standard - 11 components		<u>Reference:</u> REAIC1235.L1	
Volume: 100 ml		Matrix: in H ₂ O/tr. HNO ₃	
Element	Concentration	Element	Concentration
Li+	0.1 mg/l	Mn 2+	0.1 mg/l
Na+	0.1 mg/l	Cu 2+	0.1 mg/l
NH4+	0.1 mg/l	Fe 3+	0.1 mg/l
K+	0.1 mg/l	Ni 2+	0.1 mg/l
Ca 2+	0.1 mg/l	Zn 2+	0.1 mg/l
Mg 2+	0.1 mg/l		



Standards equivalent to Dionex

Combined Seven Anion Standard		Reference: P/N056933.L05			Reference: P/N056933.L1		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
F-	20 mg/l	NO ₂ -	100 mg/l	NO ₃ -	100 mg/l	SO ₄ 2-	150 mg/l
Cl-	30 mg/l	Br-	100 mg/l	PO ₄ 3-	150 mg/l		

Combined Seven Anion Standard II		Reference: P/N057590.L1			Reference: P/N037157.L1		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
F-	20 mg/l	NO ₃ -	100 mg/l	F-	20 mg/l	PO ₄ 3-	150 mg/l
Cl-	100 mg/l	PO ₄ 3-	200 mg/l	Cl-	30 mg/l	SO ₄ 2-	150 mg/l
NO ₂ -	100 mg/l	SO ₄ 2-	100 mg/l	NO ₃ -	100 mg/l		
Br-	100 mg/l						

Combined Six Cation Standard-I		Reference: P/N040187.L05			Reference: P/N040187.L1		
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Li+	50 mg/l	NH ₄ +	400 mg/l	Mg 2+	200 mg/l		
Na+	200 mg/l	K+	200 mg/l	Ca 2+	1000 mg/l		

Combined Six Cation Standard-II		Reference: P/N046070.L05		
Element	Concentration	Element	Concentration	Element
Li+	50 mg/l	K+	500 mg/l	
Na+	200 mg/l	Mg 2+	250 mg/l	
NH ₄ +	250 mg/l	Ca 2+	500 mg/l	