







Optima 4300DV ICP-AS Standard Log Book

Date Prepared	Analyst	Batch ID:	Manufacturer Lot # Expiration Date	Standard ID:	Dilution:	Final Concentration
6/23/2010 (JBY)		1006235	CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	Cal Standard # 3	100x	1.00ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Cu Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Si,Sn,Ti,V,Zn 51ppm Ca,Mg,Na, k
			Calibration Standard # 3	Cal Standard # 2	10x	0.10ppm above analytes
			Calibration Standard # 2	Cal Standard # 1	10x	0.01ppm above analytes 0.51ppm Ca,Mg,Na,K
			CPI: 4400-080605RH01, Lot# 10D117 & 4400-080605RH02, Lot# 10D118 Exp: Oct. 19, 2011 CPI - 4400-ICAL1-100 Lot: 09F123 Exp: Oct. 1, 2011	ICV	150x	0.667ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Cu,Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Si,Sn,Ti,V,Zn
			CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	CCV	300x	17.33ppm Ca,Mg,K,Na
			CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011		200x	0.50ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Cu Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Si,Sn,Ti,V,Zn
			CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011		400x	13ppm Ca,Mg,Na, k
6/23/2010 (JBY)		1006245 1006245b	CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	Cal Standard # 3	100x	1.00ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Cu Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Si,Sn,Ti,V,Zn 51ppm Ca,Mg,Na, k
			Calibration Standard # 3	Cal Standard # 2	10x	0.10ppm above analytes
			Calibration Standard # 2	Cal Standard # 1	10x	0.01ppm above analytes 0.51ppm Ca,Mg,Na,K
			CPI: 4400-080605RH01, Lot# 10D117 & 4400-080605RH02, Lot# 10D118 Exp: Oct. 19, 2011 CPI - 4400-ICAL1-100 Lot: 09F123 Exp: Oct. 1, 2011	ICV	150x	0.667ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Cu Fe,Pb,Li,Mn,Mo,Ni,P,Se,Si,Sn,Ti,V,Zn
			CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	CCV	300x	17.33ppm Ca,Mg,K,Na
			CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011		200x	0.50ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Cu Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Si,Sn,Ti,V,Zn
			CPI: 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011		400x	13ppm Ca,Mg,Na, k

Interference Check Standard Log Book

Date Prepared/ Batch #/ Analyst	Manufacturer Lot # Expiration Date	Standard ID	Initial Concentration Stock Standard	Final Concentration Prepared Standard	Initial Volume Stock Standard	Final Volume Prepared Standard
6/18/2010 1006165 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/21/2010 1006215 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/23/2010 1006235 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/24/2010 1006245 1006215b (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL

Optima 4300DV ICP-ES Standard Log Book

Date Prepared	Analyst	Batch ID	Manufacturer Lot # Expiration Date	Standard ID	Dilution	Final Concentration
6/24/2010	(JBA)	100625w	CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	Cal Standard # 3	100x	1.00ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Co Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Sr,Ti,Sn,Ti,V,Zn 51ppm Ca,Mg,Na, k
			Calibration Standard # 3	Cal Standard # 2	10x	0.10ppm above analytes 5.1ppm Ca,Mg,Na,K
			Calibration Standard #2	Cal Standard # 1	10x	0.01ppm above analytes 0.51ppm Ca,Mg,Na,K
			CPI: 4400-080605RH01, Lot# 10D117 & 4400-080605RH02, Lot# 10D118 Exp: Oct. 19, 2011 CPI - 4400-ICAL1-100 Lot: 09F123 Exp: Oct. 1, 2011	ICV	150x	0.667ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Co,Cu Fe,Pb,Li,Mn,Mo,Ni,P,Se,Sr,Ti,Sn,Ti,V,Zn 17.33ppm Ca,Mg,K,Na
			CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	CCV	200x	0.50ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Co Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Sr,Ti,Sn,Ti,V,Zn 13ppm Ca,Mg,Na, k
6/25/2010	(JBA)	100625w	CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	Cal Standard # 3	100x	1.00ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Co Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Sr,Ti,Sn,Ti,V,Zn 51ppm Ca,Mg,Na, k
			Calibration Standard # 3	Cal Standard # 2	10x	0.10ppm above analytes 5.1ppm Ca,Mg,Na,K
			Calibration Standard #2	Cal Standard # 1	10x	0.01ppm above analytes 0.51ppm Ca,Mg,Na,K
			CPI: 4400-080605RH01, Lot# 10D117 & 4400-080605RH02, Lot# 10D118 Exp: Oct. 19, 2011 CPI - 4400-ICAL1-100 Lot: 09F123 Exp: Oct. 1, 2011	ICV	150x	0.667ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Co,Cu Fe,Pb,Li,Mn,Mo,Ni,P,Se,Sr,Ti,Sn,Ti,V,Zn 17.33ppm Ca,Mg,K,Na
			CPI: 4400-080605RH01, Lot# 10E016 & 4400-080605RH02, Lot# 10E017 Exp: Nov. 5, 2011 CPI - 4400-ICAL1-100 Lot: 09K009 Exp: Nov. 14, 2011	CCV	200x	0.50ppm-Ag,Al,Sb,As,B,Ba,Be,Cd,Cr,Co Cu,Fe,Pb,Li,Mn,Mo,Ni,P,Se,Sr,Ti,Sn,Ti,V,Zn 13ppm Ca,Mg,Na, k

Interference Check Standard Log Book

Date Prepared/ Batch #/ Analyst	Manufacturer Lot # Expiration Date	Standard ID	Initial Concentration Stock Standard	Final Concentration Prepared Standard	Initial Volume Stock Standard	Final Volume Prepared Standard
6/18/2010 1006165 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/21/2010 1006215 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/23/2010 1006235 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/24/2010 1006245 1006246 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/25/2010 1006255 1006256 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
6/28/2010 1006285 1006286 (JBY)	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL
	CPI International 4400-INTA1-500, 400-INTB1-100 09I195, 09K025 June 4, 2011	Interferents - A Analytes - B	5000ppm Al,Ca,Mg 2000ppm Fe 100ppm Ag,Cd,Ni,Pb,Zn 50ppm Ba,Be,Co,Cr,Cu,Mn,V	500ppm Al,Ca,Mg 200ppm Fe 1.0ppm Ag,Cd,Ni,Pb,Zn 0.50ppm Ba,Be,Co,Cr,Cu,Mn,V	1.00mL ICL500-6 0.10mL ICL100-7	10.0mL