

C E R T I F I C A T E O F A N A L Y S I S

BASELINE Hydrochloric Acid

1A		PRODUCT NUMBER: 04										LOT NUMBER : 4202020										ASSAY : 34%																
2A												Most elements are determined by magnetic sector ICP-MS using sample preconcentration. The results are an average of three aliquots subsampled from three samples representative of the lot. The samples are slowly evaporated to dryness, the resulting residue is reconstituted in a small volume of 2% SEASTAR™ BASELINE® Nitric Acid. Operations are conducted under Class 100 or better clean-room conditions. For volatile elements (indicated by *), the acid samples are diluted then directly injected into the ICP-MS. Values below 3 times the standard deviation of the blank are shown with "<", no blank value is subtracted.										3A		4A	5A	6A	7A											
3	Li	4	Be																			5	B															
<1	<5																																					
11	Na	12	Mg																			13	Al															
<10	<5																						<20															
				3B	4B	5B	6B	7B	8		1B	2B																										
19	K	20	Ca	21	Sc	22	Ti	23	V	24	Cr	25	Mn	26	Fe	27	Co	28	Ni	29	Cu	30	Zn	31	Ga		33	As	34	Se								
<10	<20		<1		<10		<1		<10		<2		<20		<3		<10		<5		<5		<1			<20		<50										
37	Rb	38	Sr	39	Y	40	Zr	41	Nb	42	Mo			44	Ru	45	Rh	46	Pd	47	Ag	48	Cd	49	In	50	Sn	51	Sb	52	Te							
<1	<1		<0.1		<1		<1		<10					<10		<1		<10		<5		<0.1		<0.1		<20		<50		<10								
55	Cs	56	Ba	57	La	72	Hf	73	Ta	74	W	75	Re					78	Pt	79	Au	80	*Hg	81	Tl	82	Pb	83	Bi									
<0.05	<1		<0.05		<0.05		<0.05		<20		<10		<0.1					<1		<10		<100		<0.1		<1		<0.05										
						ALL VALUES ARE REPORTED IN PARTS PER TRILLION (PPT)																																

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KEY

(1) (2)	(1) Atomic Number
(3)	(2) Elemental Symbol
(4)	(3) Concentration (mean in ppt)
	(4) 1 Standard Deviation n=3)

58	Ce	59	Pr	60	Nd		62	Sm	63	Eu	64	Gd	65	Tb	66	Dy	67	Ho	68	Er	69	Tm	70	Yb	71	Lu
	<0.05		<0.05		<0.05			<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01
90	Th			92	U																					
	<0.05				<0.01																					



Dr. B. McKelvey
 QA/QC Manager