



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

Australian Laboratory Services Pty Ltd

32 Shand Street

Stafford

Brisbane QLD 4053

Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218 www.alschemex.com

Page: 1  
Finalized Date: 2-APR-2007  
Account: JIMKAS

## CERTIFICATE BR07020144

Project: EL22440

P.O. No.: SSF 246785

This report is for 12 Rock samples submitted to our lab in Brisbane, QLD, Australia on 2-MAR-2007.

The following have access to data associated with this certificate:

JIM KASTRISSIOS

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
RST-21	Roasting
LEV-01	Waste Disposal Levy
LOG-22	Sample login - Rcd w/o BarCode
CRU-21	Crush entire sample >70% -6 mm
PUL-22	Pulverizing 3kg sample in LM5

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME-MS61	48 element four acid ICP-MS
ME-OG62	Ore Grade Elements - Four Acid
Pb-OG62	Ore Grade Pb - Four Acid
ME-MS81	38 element fusion ICP-MS
Au-OG43	Ore Grade Au - 25g AR
Au-AA25	Ore Grade Au 30g FA AA finish

To: JIM KASTRISSIOS  
ATTN: JIM KASTRISSIOS  
PO BOX 36762  
WINNELLIE NT

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Comments: REE's may not be totally soluble in MS61 method.

Signature:

Shaun Kenny, Brisbane Laboratory Manager



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

Australian Laboratory Services Pty Ltd

32 Shand Street

Stafford

Brisbane QLD 4053

Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218 www.alschemex.com

Page: 2 - A

Total # Pages: 2 (A - F)

Finalized Date: 2-APR-2007

Account: JIMKAS

Project: EL22440

## CERTIFICATE OF ANALYSIS BR07020144

Sample Description	Method Analyte Units LOR	WEI-21	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Recvd Wt.	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
		kg	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
93603		2.51	0.46	5.84	958.0	900	19.55	0.71	0.05	2.34	72.10	27.0	78	4.33	374.0
93609		1.85	0.66	2.21	156.5	180	3.29	1.79	0.03	0.49	19.80	4.0	56	0.62	551.0
93610		2.76	2.52	2.09	205.0	250	1.43	1.13	0.03	0.15	87.40	4.4	63	0.44	998.0
1001		2.14	0.90	1.71	442.0	430	2.05	1.85	0.03	0.29	97.70	6.9	87	0.31	1750.0
1002		2.16	0.89	1.61	426.0	370	1.97	1.66	0.02	0.25	92.50	6.7	84	0.30	1840.0
1004		1.29	0.85	1.79	402.0	360	2.54	1.60	0.03	0.31	81.30	7.1	92	0.27	1860.0
1014		1.67	0.67	2.84	255.0	110	1.87	2.54	0.02	0.21	48.20	6.2	99	0.41	1510.0
1016		0.61	0.34	10.60	238.0	390	3.16	1.25	0.04	0.11	277.00	188.5	199	5.25	158.5
1018		0.56	1.26	1.24	426.0	340	2.05	3.76	0.03	2.52	73.20	79.0	74	0.66	369.0
1023		2.07	1.30	2.31	96.5	410	1.36	2.25	0.02	0.19	23.50	26.6	40	0.91	216.0
93607J		2.55	36.40	1.40	1020.0	70	4.83	0.55	0.04	1.59	35.20	9.6	40	0.43	402.0
93608J		2.97	23.80	1.08	1260.0	70	3.71	1.22	0.04	1.89	36.00	8.3	41	0.29	265.0

Comments: REE's may not be totally soluble in MS61 method.



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

Australian Laboratory Services Pty Ltd

32 Shand Street

Stafford

Brisbane QLD 4053

Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218 www.alschemex.com

Page: 2 - B

Total # Pages: 2 (A - F)

Finalized Date: 2-APR-2007

Account: JIMKAS

Project: EL22440

## CERTIFICATE OF ANALYSIS BR07020144

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
		ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
		0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
93603		18.50	1.08	3.8	0.262	1.98	29.3	10.0	0.16	2780	26.30	0.05	8.3	210.0	2400
93609		10.35	0.44	2.0	0.086	0.04	12.4	2.7	0.03	227	24.70	0.01	7.2	20.9	1410
93610		10.35	0.60	2.4	0.052	0.08	44.0	2.4	0.01	134	29.80	0.01	4.1	12.7	2180
1001		12.15	0.91	4.0	0.089	0.07	51.8	1.2	0.01	207	61.70	0.02	3.3	19.1	2440
1002		12.20	2.28	3.7	0.096	0.06	49.2	1.5	0.01	168	58.40	0.01	3.0	19.1	2260
1004		11.30	2.84	3.7	0.090	0.09	45.7	1.0	0.02	195	53.50	0.02	3.3	21.8	2200
1014		9.39	3.36	5.7	0.054	0.06	26.7	1.2	0.02	98	102.00	0.02	5.2	24.1	1300
1016		34.80	0.99	5.3	0.104	2.12	24.3	55.0	0.25	2540	31.60	0.06	7.1	124.0	400
1018		32.30	0.30	4.1	0.021	0.10	37.4	16.0	0.02	4140	17.35	0.02	11.8	35.8	1780
1023		10.20	0.16	3.1	0.028	0.03	13.3	1.6	0.02	1685	15.30	0.01	9.7	22.4	660
93607J		6.06	0.26	1.2	0.108	0.14	16.6	36.5	0.02	104	25.80	0.01	2.2	72.8	8040
93608J		4.75	0.29	1.0	0.245	0.09	16.9	24.3	0.02	108	19.40	0.01	1.9	58.3	6550

Comments: REE's may not be totally soluble in MS61 method.



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

Australian Laboratory Services Pty Ltd

32 Shand Street

Stafford

Brisbane QLD 4053

Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218 www.alschemex.com

Page: 2 - C

Total # Pages: 2 (A - F)

Finalized Date: 2-APR-2007

Account: JIMKAS

Project: EL22440

## CERTIFICATE OF ANALYSIS BR07020144

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
		0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1
93603		66.8	0.002	0.02	56.00	23.3	3	5.9	45.8	0.85	0.13	15.3	0.241	2.89	28.6
93609		5.6	0.002	0.05	3.24	8.9	11	2.0	31.9	0.62	0.70	8.2	0.179	0.06	11.3
93610		6.0	0.002	0.15	2.32	9.0	20	0.7	572.0	0.36	0.65	13.6	0.137	0.11	25.0
1001		4.0	0.005	0.21	7.51	11.8	31	0.5	510.0	0.29	0.65	19.4	0.164	0.08	28.8
1002		3.4	0.004	0.20	6.64	11.3	29	0.4	453.0	0.28	0.70	18.2	0.152	0.05	29.1
1004		4.1	0.003	0.21	6.40	10.6	31	0.5	443.0	0.29	0.70	17.4	0.150	0.07	26.9
1014		5.2	0.005	0.13	2.80	13.0	35	1.0	143.0	0.56	0.70	20.7	0.262	0.07	41.8
1016		109.5	<0.002	0.02	2.70	19.6	4	3.1	60.4	0.71	0.69	21.1	0.259	1.57	21.0
1018		5.8	0.002	0.08	8.79	9.9	5	1.1	429.0	0.85	0.56	23.5	0.307	1.06	12.4
1023		3.7	<0.002	0.02	2.26	12.5	5	1.7	78.1	0.86	1.63	8.4	0.284	1.31	8.7
93607J		6.6	<0.002	0.15	23.70	3.0	2	13.3	44.6	0.17	0.20	4.5	0.092	0.29	27.9
93608J		4.4	<0.002	0.10	12.70	4.4	2	9.9	39.1	0.09	0.35	7.3	0.095	0.17	23.1

Comments: REE's may not be totally soluble in MS61 method.



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

Australian Laboratory Services Pty Ltd

32 Shand Street

Stafford

Brisbane QLD 4053

Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218 www.alschemex.com

Page: 2 - D

Total # Pages: 2 (A - F)

Finalized Date: 2-APR-2007

Account: JIMKAS

Project: EL22440

## CERTIFICATE OF ANALYSIS BR07020144

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Pb-OG62	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
		W	Y	Zn	Zr	Pb	Ag	Ba	Ce	Co	Cr	Cs	Cu	Dy	Er
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.1	0.1	2	0.5	0.01	1	0.5	0.5	0.5	10	0.01	5	0.05	0.03
93603		10.3	34.2	2780	129.5		<1	1195	86.8	36.2	120	4.80	431	8.03	5.32
93609		12.8	7.6	212	61.9		<1	191.5	17.9	4.5	60	0.59	516	1.83	1.14
93610		6.6	12.0	171	73.7		1	274	87.0	4.9	80	0.38	915	4.41	2.40
1001		19.2	19.1	290	118.5		<1	461	95.1	7.8	110	0.24	1630	6.89	4.13
1002		18.3	15.3	281	110.0		<1	386	87.1	7.0	100	0.22	1680	5.81	3.51
1004		17.8	16.7	329	106.0		<1	383	75.3	7.5	110	0.17	1640	5.91	3.63
1014		17.2	14.8	269	148.5		<1	113.5	42.2	6.5	120	0.32	1360	4.36	2.95
1016		3.2	10.0	80	154.5		<1	432	340	210	250	4.84	153	3.46	2.13
1018		16.7	17.3	324	121.5		<1	334	72.8	79.1	80	0.60	321	3.51	2.20
1023		13.8	7.1	63	99.9		<1	414	22.8	27.1	50	0.92	200	1.70	0.99
93607J		1.8	8.3	2040	38.0	4.58	15	76.6	34.0	10.2	50	0.40	378	1.82	0.87
93608J		1.6	9.4	1420	35.7	4.40	11	71.5	35.2	9.2	50	0.25	245	2.19	1.13

Comments: REE's may not be totally soluble in MS61 method.



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

Australian Laboratory Services Pty Ltd

32 Shand Street

Stafford

Brisbane QLD 4053

Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218 www.alschemex.com

Page: 2 - E

Total # Pages: 2 (A - F)

Finalized Date: 2-APR-2007

Account: JIMKAS

Project: EL22440

## CERTIFICATE OF ANALYSIS BR07020144

Sample Description	Method Analyte Units LOR	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
		Ga	Gd	Hf	Ho	La	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	Sm
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.1	0.05	0.2	0.01	0.5	0.01	2	0.2	0.1	5	5	0.03	0.2	0.03
93603		22.6	7.67	4.5	1.75	34.3	0.76	34	12.7	33.7	279	425	7.89	96.7	6.75
93609		10.5	1.66	1.9	0.37	12.1	0.19	25	7.0	7.8	18	62	2.00	6.1	1.49
93610		10.0	8.05	2.4	0.80	43.3	0.41	31	7.1	47.0	11	2240	10.35	6.9	9.28
1001		12.3	10.05	4.1	1.37	51.5	0.74	66	13.9	56.0	17	3600	11.60	4.6	12.25
1002		11.6	8.74	3.7	1.13	45.4	0.61	60	11.9	50.7	16	3340	10.85	3.8	11.05
1004		11.0	8.11	3.7	1.21	42.6	0.67	55	12.0	42.2	18	3110	9.09	4.3	9.89
1014		9.4	3.33	5.8	0.94	25.5	0.58	108	19.8	19.4	21	1130	4.79	5.9	3.47
1016		35.0	3.79	7.3	0.69	31.4	0.36	33	15.2	18.7	127	187	5.07	139.5	3.34
1018		29.7	4.28	3.9	0.71	37.8	0.40	17	18.2	32.1	30	3000	7.65	6.0	5.71
1023		9.5	1.73	3.1	0.31	14.4	0.19	16	9.9	8.0	22	183	2.19	4.3	1.44
93607J		6.2	3.22	2.0	0.31	17.9	0.09	27	2.6	19.1	69	>10000	4.19	7.4	3.83
93608J		4.7	3.29	2.0	0.42	18.2	0.13	20	2.7	19.5	55	>10000	4.37	4.9	3.85

Comments: REE's may not be totally soluble in MS61 method.



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

Australian Laboratory Services Pty Ltd

32 Shand Street

Stafford

Brisbane QLD 4053

Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218 www.alschemex.com

Page: 2 - F

Total # Pages: 2 (A - F)

Finalized Date: 2-APR-2007

Account: JIMKAS

Project: EL22440

## CERTIFICATE OF ANALYSIS BR07020144

Sample Description	Method Analyte Units LOR	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	Au-OG43	Au-AA25
		Sr	Ta	Tb	Th	Tl	Tm	U	V	W	Y	Yb	Zn	Zr	Au	Au
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.1	0.1	0.01	0.05	0.5	0.01	0.05	5	1	0.5	0.03	5	2	0.01	0.01
93603		58.0	1.1	1.35	18.20	1.6	0.72	36.0	858	13	53.4	4.93	3380	176	<0.01	<0.01
93609		32.3	0.4	0.29	7.66	<0.5	0.16	10.85	198	11	8.6	1.35	197	68	0.01	<0.01
93610		536	0.4	1.10	13.35	<0.5	0.33	26.2	230	16	21.1	2.79	164	80	0.03	0.02
1001		470	1.2	1.37	19.00	<0.5	0.60	30.2	367	54	37.1	4.94	284	134	0.03	0.02
1002		420	1.0	1.26	17.30	<0.5	0.52	30.2	356	49	30.5	4.09	273	122	0.04	0.01
1004		394	1.0	1.13	16.45	<0.5	0.55	27.6	353	50	32.4	4.35	310	118	0.05	0.03
1014		138.5	2.1	0.66	20.2	<0.5	0.48	49.7	408	57	25.7	3.56	259	178	0.01	<0.01
1016		61.3	1.3	0.58	24.1	<0.5	0.33	21.4	570	5	19.4	2.53	79	244	<0.01	<0.01
1018		362	0.8	0.64	20.6	<0.5	0.32	11.25	238	22	19.6	2.58	277	129	0.01	<0.01
1023		76.5	0.6	0.29	7.48	<0.5	0.15	7.80	90	14	7.9	1.26	60	106	0.03	0.04
93607J		45.4	<0.1	0.42	4.23	<0.5	0.09	28.1	83	2	9.6	0.68	1870	74	0.03	0.02
93608J		39.3	0.1	0.44	6.81	<0.5	0.14	23.3	83	4	10.9	0.99	1300	70	0.02	0.01

Comments: REE's may not be totally soluble in MS61 method.