

## Cameco Australia Pty. Ltd.

### East Alligator EL 23522 - Sample Structural Measurements

Sample Number	Lithology	TSA Mineral 1	TSA Weight 1	TSA Mineral 2	TSA Weight 2	TSA Error	AlOH Crystallinity	Kaolinite Crystallinity
EA030101B1	fine grained sandstone							
EA030102B1	fine grained sandstone	Muscovite	1.00			92.79	1.89	0.99
EA030103B1	fine to medium grained sandstone	Aspectral				5000.00	0.47	1
EA030104B1	fine to medium grained siliceous sdst	Illite	1.00			369.64	1.34	0.98
EA030105B1	fine to medium grained weakly sil sdst	Muscovite	1.00			97.12	1.87	0.99
EA030106B1	fine to medium grained silicified sdst	Muscovite	0.54	Kaolinite	0.46	61.84	1.9	1
EA030107B1	fine to medium grained sandstone	Illite	1.00			180.35	1.34	0.98
EA030108B1	fine grained bleached sandstone	Muscovite	1.00			1053.21	0.43	1.01
EA030109B1	fine to medium grained sandstone	Illite	1.00			141.07	1.53	1
EA030110B1	fine grained very silicified sdst	Muscovite	0.60	Paragonite	0.39	60.93	1.56	0.99
EA030111B1	fine to medium grained sandstone	Aspectral				5000.00	0.43	0.99
EA030112B1	fine to medium grained sandstone	Illite	1.00			82.98	1.48	1
EA030113B1	fine to medium grained sandstone	Illite	1.00			133.00	2.28	1
EA030114B1	fine grained sandstone	Aspectral				5000.00	0.46	0.99
EA030115B1	fine to medium grained sandstone	Illite	0.64	Dickite	0.35	52.65	2.68	0.9
EA030116B1	fine to medium grained sandstone	Illite	1.00			72.30	1.37	1
EA030117B1	medium to coarse grained sandstone	Muscovite	1.00			171.03	0.69	0.99
EA030118B1	medium grained sandstone	Muscovite	0.84	Halloysite	0.15	36.14	1.49	1
EA030119B1	fine to medium grained sandstone	Muscovite	1.00			507.39	0.94	0.98
EA030120B1	fine grained sandstone	Muscovite	1.00			254.72	2.14	0.99
EA030121B1	fine to medium grained sandstone	Dickite	1.00			46.59	4.54	0.8
EA030122B1	medium grained sandstone	Paragonite	1.00			1649.81	0.59	1.01
EA030123B1	fine grained sandstone	Illite	0.57	Dickite	0.42	116.32	2.81	0.92
EA030124B1	fine to medium grained sandstone	Illite	0.57	Dickite	0.42	141.26	2.19	0.96
EA030125B1	fine to medium grained sandstone	Illite	1.00			110.60	2.02	0.99
EA030126B1	fine to medium grained sandstone	Muscovite	1.00			513.62	1.25	1
EA030127B1	medium to coarse grained sandstone	Muscovite	1.00			109.98	0.79	0.99
EA030128B1	medium to coarse grained sandstone	Illite	1.00			222.89	2.65	0.97
EA030129B1	medium grained sandstone	Dickite	1.00			116.73	6.25	0.88
EA030130B1	medium grained sandstone	Muscovite	1.00			128.81	1.9	0.98
EA030131B1	medium to coarse grained sandstone	Dickite	1.00			101.85	2.99	0.88
EA030132B1	medium to coarse grained sandstone	Illite	1.00			50.05	1.64	0.98
EA030133B1	medium grained sandstone	Illite	1.00			44.45	1.78	0.98
EA030134B1	medium to coarse grained sandstone	Muscovite	0.55	Paragonite	0.44	111.02	1.64	0.99
EA030135B1	fine to medium grained sandstone	Illite	0.67	Halloysite	0.32	64.54	2.28	1.01
EA030136B1	fine to medium grained sandstone	Muscovite	0.75	Halloysite	0.24	55.94	1.6	1
EA030137B1	fine grained sandstone	Illite	1.00			273.04	1.97	0.98
EA030138B1	medium grained sandstone	Dickite	1.00			136.38	5.67	0.91

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EA030139B1	medium grained sandstone	Dickite	1.00			145.14	5.18	0.88
EA030140B1	fine grained sandstone	Illite	0.53	MgChlorite	0.46	152.64	1.01	0.94
EA030141B1	medium to coarse grained sandstone	Dickite	0.67	Muscovite	0.32	72.38	3.74	0.91
EA030142B1	medium to coarse grained sandstone	Dickite	1.00			186.96	1.83	0.92
EA030143B1	fine to medium grained sandstone	Dickite	1.00			687.43	2.08	0.95
EA030144B1	medium grained sandstone	Illite	0.75	Kaolinite	0.24	103.36	1.8	1
EA030145B1	medium to coarse grained sandstone	Illite	1.00			190.59	1.21	0.96
EA030146B1	medium grained sandstone	Muscovite	0.69	Paragonite	0.30	30.86	1.45	0.98
EA030147B1	fine to coarse grained sandstone	Dickite	0.66	Jarosite	0.33	495.50	1.9	0.96
EA030148B1	medium grained sandstone	Paragonite	0.56	Muscovite	0.43	59.78	3.42	0.96
EA030149B1	fine grained sandstone	Dickite	1.00			47.86	7.66	0.65
EA030150B1	medium to coarse grained sandstone	Muscovite	1.00			421.33	0.95	1
EA030151B1	medium grained sandstone	Dickite	1.00			115.17	10.2	0.83
EA030152B1	medium to coarse grained sandstone	Kaolinite	1.00			170.53	2.97	1.01
EA030153B1	medium grained sandstone	Dickite	0.59	Muscovite	0.40	92.10	3.08	0.93
EA030154B1	fine to medium grained sandstone	Illite	1.00			215.26	2.62	1.01
EA030155B1	fine to medium grained sandstone	Dickite	0.65	Illite	0.34	53.46	2.48	0.91
EA030156B1	medium grained sandstone	Dickite	0.77	Muscovite	0.22	81.36	2.22	0.89
EA030157B1	medium grained sandstone	Dickite	1.00			77.70	4.09	0.78
EA030158B1	medium grained sandstone	Illite	0.73	Kaolinite	0.26	61.54	2.23	1
EA030159B1	fine to medium grained sandstone	Illite	1.00			193.08	2.79	0.99
EA030160B1	medium grained sandstone	Muscovite	1.00			1574.29	0.88	0.99
EA030161B1	medium grained sandstone	Dickite	1.00			151.69	4.57	0.86
EA030162B1	fine to medium grained sandstone	Illite	1.00			117.19	3.72	0.99
EA030163B1	medium grained sandstone	Dickite	1.00			188.54	8.43	0.87
EA030164B1	medium to coarse grained sandstone	Illite	1.00			411.92	0.89	0.99
EA030165B1	medium grained sandstone	Muscovite	1.00			151.44	1.76	0.99
EA030166B1	medium to coarse grained sandstone	Dickite	1.00			72.60	5.6	0.82
EA030167B1	fine to medium grained sandstone	Dickite	0.65	Illite	0.34	86.19	3.16	0.92
EA030168B1	medium grained sandstone	Illite	0.72	Kaolinite	0.27	66.97	2.52	1
EA030169B1	fine to medium grained sandstone	Illite	0.81	Kaolinite	0.19	82.62	2.48	1
EA030170B1	fine to medium grained sandstone	Illite	0.65	Dickite	0.34	42.34	3.23	0.93
EA030171B1	fine to medium grained sandstone	Paragonite	0.51	Muscovite	0.48	57.97	3.17	0.97
EA030172B1	medium to coarse grained sandstone	Illite	0.77	Kaolinite	0.23	80.07	2.4	0.99
EA030173B1	fine to medium grained sandstone	Dickite	1.00			147.28	8.93	0.86
EA030174B1	medium grained sandstone	Dickite	0.56	Muscovite	0.43	152.44	5.72	0.92
EA030175B1	medium grained sandstone	Dickite	1.00			243.95	4.6	0.9
EA030176B1	fine to medium grained sandstone	Illite	1.00			460.55	1.51	0.99

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EA030177B1	fine grained sandstone	Dickite	1.00			279.82	5.02	0.9
EA030178B1	medium grained sandstone	Muscovite	1.00			398.89	1.34	1
EA030179B1	fine to medium grained sandstone	Dickite	1.00			51.96	5.64	0.75
EA030180B1	fine to medium grained sandstone	Illite	0.69	Halloysite	0.30	108.96	3.09	0.98
EA030181B1	fine to medium grained sandstone	Kaolinite	0.51	Muscovite	0.48	43.90	2.63	1.02
EA030182B1	medium to coarse grained sandstone	Illite	1.00			98.50	1.51	1
EA030183B1	medium to coarse grained sandstone	Muscovite	0.69	Dickite	0.31	114.48	2.08	0.98
EA030184B1	medium grained sandstone	Paragonite	1.00			609.65	0.95	1
EA030185B1	fine grained sandstone	Illite	1.00			253.47	1.35	1
EA030186B1	medium to coarse grained sandstone	Kaolinite	0.58	Muscovite	0.41	102.16	2.1	0.98
EA030187B1	medium to coarse grained sandstone	Muscovite	0.53	Paragonite	0.46	49.38	2.18	0.96
EA030188B1	medium to coarse grained sandstone	NULL					0.4	1
EA030189B1	medium to coarse grained sandstone	Muscovite	0.52	Dickite	0.48	342.61	1.29	0.97
EA030190B1	medium grained sandstone	Illite	1.00			664.57	0.63	1
EA030191B1	medium to coarse grained sandstone	Dickite	1.00			88.76	8.59	0.81
EA030192B1	medium grained sandstone	Muscovite	0.61	Kaolinite	0.38	183.69	1.94	1.01
EA030193B1	medium grained sandstone	Dickite	1.00			631.06	1.21	0.96
EA030195B1	medium to coarse grained sandstone	Dickite	0.63	Paragonite	0.36	45.76	4.37	0.88
EA030196B1	medium to coarse grained sandstone	Illite	0.80	Dickite	0.19	109.48	1.94	0.97
EA030197B1	medium grained sandstone	Aspectral				5000.00	0.64	0.99
EA030198B1	medium to coarse grained sandstone	Illite	1.00			191.63	1.73	0.99
EA030199B1	medium grained sandstone	Dickite	0.56	Muscovite	0.44	172.75	2.73	0.94
EA030200B1	medium grained sandstone	Muscovite	0.52	Paragonite	0.47	52.23	2.4	0.97
EA030201B1	medium grained sandstone	Illite	1.00			168.20	1.84	0.97
EA030202B1	medium grained sandstone	Dickite	1.00			90.78	9.61	0.84
EA030203B1	medium to coarse grained sandstone	Aspectral				5000.00	0.64	0.99
EA030204B1	medium grained sandstone	Muscovite	1.00			433.76	0.87	1
EA030205B1	medium grained sandstone	WhiteMarker	1.00			1606.81	0.56	0.99
EA030206B1	medium grained sandstone	Muscovite	0.59	Paragonite	0.40	40.22	2.9	0.97
EA030207C1	medium to coarse grained sandstone							
EA030207C2	medium to coarse grained sandstone	Aspectral				5000.00	0.33	1
EA030208C1	fine to medium grained sandstone	Kaolinite	0.60	Paragonite	0.39	261.52	0.99	0.98
EA030209C1	medium to coarse grained sandstone	Aspectral				5000.00	0.77	0.99
EA030210C1	laterite	Kaolinite	1.00			175.18	1.93	1.08
EA030211C1	laterite	Kaolinite	1.00			105.14	2.91	1.05
EA030212C1	medium grained sandstone	Kaolinite	0.60	Halloysite	0.39	116.68	1.51	1
EA030212C2	medium grained sandstone	Muscovite	1.00			102.12	2.82	1
EA030213C1	laterite	Halloysite	1.00			375.01	0.94	1

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Sample Number	Lithology	TSA Mineral 1	TSA Weight 1	TSA Mineral 2	TSA Weight 2	TSA Error	AlOH Crystallinity	Kaolinite Crystallinity
EA030213C2	laterite	Muscovite	0.64	Dickite	0.35	145.53	1.72	0.97
EA030214C1	laterite	Halloysite	1.00			170.50	1.49	1
EA030215	black soil							
EA030217C1	laterite	Illite	0.56	MgChlorite	0.44	111.40	1.06	0.97
EA030219C1	medium to coarse grained sandstone	Muscovite	1.00			198.73	1.36	0.99
EA030220C1	coarse grained granular sandstone	Kaolinite	0.59	Muscovite	0.40	60.53	2.38	0.99
EA030221C1	medium grained sandstone + laterite	Kaolinite	0.69	Halloysite	0.30	101.93	1.83	1.01
EA040001C1	sandstone	Kaolinite	1.00			90.05	2.5	1.03
EA040002C1	sandstone	Muscovite	0.62	Kaolinite	0.37	167.66	1.96	1.02
EA040003C1	sandstone	Dickite	0.68	Nacrite	0.31	84.84	6.07	0.88
EA040004C1	sandstone	Muscovite	0.60	Paragonite	0.39	41.40	1.88	0.99
EA040005C1	sandstone	Dickite	1.00			154.40	5.98	0.87
EA040006C1	sandstone	Muscovite	0.68	Kaolinite	0.31	48.52	1.86	1.01
EA040007C1	sandstone	Illite	1.00			90.84	1.98	1
EA040008C1	sandstone	Dickite	1.00			304.29	2.16	0.94
EA040009C1	sandstone	Illite	0.68	Dickite	0.31	70.01	1.93	0.96
EA040010C1	sandstone	Illite	0.76	Dickite	0.24	42.77	1.87	0.93
EA040011C1	sandstone	Illite	0.66	Ankerite	0.33	253.35	0.71	0.97
EA040011C2	sandstone	Illite	1.00			569.17	1.05	0.99
EA040012C1	sandstone	Aspectral				5000.00	0.97	0.97
EA040013C1	sandstone	Dickite	1.00			68.55	3.27	0.85
EA040014C1	sandstone	Illite	0.76	Dickite	0.24	182.66	2.17	0.96
EA040015C1	sandstone	Dickite	0.53	Muscovite	0.46	173.87	1.9	0.96
EA040016C1	sandstone	Aspectral				5000.00	0.67	1
EA040017C1	sandstone	Dickite	1.00			95.26	7.09	0.83
EA040018C1	sandstone	Dickite	0.66	Nacrite	0.33	78.56	9.95	0.73
EA040019C1	sandstone	Dickite	1.00			117.73	8.41	0.85
EA040020C1	sandstone	Kaolinite	0.52	Illite	0.47	58.68	1.11	1
EA040020C2	sandstone	Aspectral				5000.00	0.73	1.03
EA040020C3	sandstone	Illite	0.66	Kaolinite	0.33	171.15	1.34	0.98
EA040021C1	sandstone	Paragonite	1.00			406.40	0.88	1.02
EA040022C1	sandstone + ?volcanic material	Illite	1.00			181.31	1.27	1
EA040022C2	sandstone + ?volcanic material							
EA040023M1	sandstone							
EA040024C1	sandstone	Illite	1.00			424.10	1.24	0.99
EA040025C1	sandstone	Illite	1.00			86.81	1.78	0.99
EA040026C1	sandstone	Dickite	0.74	Nacrite	0.25	72.23	5.34	0.69
EA040027C1	sandstone	Illite	1.00			167.62	1.67	1

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Sample Number	Lithology	TSA Mineral 1	TSA Weight 1	TSA Mineral 2	TSA Weight 2	TSA Error	AlOH Crystallinity	Kaolinite Crystallinity
EA040028C1	sandstone	Nacrite	0.51	Dickite	0.48	178.96	3.41	0.91
EA040029C1	sandstone	Dickite	1.00			242.82	1.79	0.94
EA040030C1	sandstone	Dickite	0.54	Muscovite	0.45	192.15	1.76	0.95
EA040031C1	sandstone	Dickite	0.61	Nacrite	0.38	103.18	3.66	0.91
EA040032C1	sandstone	Dickite	0.61	Nacrite	0.38	99.09	2.39	0.9
EA040033C1	sandstone	Dickite	1.00			306.28	1.75	0.94
EA040034C1	sandstone	Dickite	1.00			48.83	9.21	0.79
EA040035C1	sandstone	Dickite	1.00			68.34	5.95	0.83
EA040036C1	sandstone	Illite	0.80	Kaolinite	0.20	86.91	2.31	1
EA040037C1	sandstone	Dickite	1.00			94.71	8.02	0.86
EA040038C1	sandstone	Dickite	1.00			98.29	5.1	0.9
EA040039C1	sandstone	Dickite	1.00			146.80	4.49	0.89
EA040040C1	sandstone	Dickite	1.00			74.64	5.15	0.83
EA040041C1	sandstone + laterite	Dickite	1.00			257.03	1.65	0.95
EA040042C1	sandstone + laterite							
EA040042C2	sandstone + laterite	Halloysite	1.00			553.49	0.93	1
EA040043C1	sandstone	Aspectral				5000.00	0.74	1.01
EA040044C1	sandstone	Illite	1.00			133.34	2.57	1
EA040045C1	sandstone	Dickite	0.55	Muscovite	0.44	128.91	1.81	0.92
EA040046C1	sandstone	Illite	1.00			172.40	2.4	1.01
EA040047C1	sandstone	Dickite	1.00			614.53	1.58	0.96
EA040048C1	sandstone	Dickite	1.00			268.16	2.53	0.91
EA040049C1	sandstone + laterite (?volcanic)	Illite	1.00			467.48	1.29	1
EA040050C1	sandstone	Dickite	0.73	Muscovite	0.26	69.11	3.44	0.91
EA040051C1	sandstone	Dickite	1.00			181.03	9.76	0.92
EA040052C1	sandstone	Muscovite	0.52	Paragonite	0.47	82.87	2.56	0.97
EA040053C1	sandstone	Dickite	0.55	Paragonite	0.44	190.98	1.85	0.97
EA040054C1	sandstone	Dickite	1.00			190.58	3.18	0.93
EA040055C1	sandstone	Dickite	1.00			226.87	2.14	0.95
EA040056C1	sandstone	Illite	0.71	Dickite	0.28	108.03	2.4	0.95
EA040057C1	sandstone	Muscovite	1.00			507.50	0.93	1
EA040058C1	sandstone	Dickite	1.00			143.93	7.05	0.86
EA040059C1	sandstone	Dickite	0.72	Nacrite	0.27	34.63	8.49	0.84
EA040060C1	sandstone	Illite	0.51	Kaolinite	0.48	99.68	3.8	0.97
EA040061C1	sandstone	Muscovite	0.59	Paragonite	0.40	126.14	1.02	1
EA040062C1	sandstone	Dickite	0.69	Nacrite	0.30	62.19	4.94	0.86
EA040063C1	sandstone	Dickite	0.77	Nacrite	0.22	59.18	7.9	0.82
EA040064C1	sandstone	Paragonite	0.51	Muscovite	0.48	129.37	1.54	0.99

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EA040065C1	sandstone	Dickite	0.54	Illite	0.45	89.06	2.89	0.92
EA040066C1	sandstone	Paragonite	0.55	Muscovite	0.44	113.40	2.31	0.99
EA040067C1	sandstone	Aspectral				5000.00	0.5	0.99
EA040068C1	sandstone	Muscovite	0.50	Paragonite	0.49	56.78	2.22	0.98
EA040069C1	sandstone	Dickite	0.68	Nacrite	0.31	93.98	5.63	0.82
EA040070C1	sandstone + laterite (volcanic)	Illite	1.00			771.23	0.72	1
EA040070C2	sandstone + laterite (volcanic)	Aspectral				5000.00	0.27	1
EA040071C1	sandstone	Muscovite	1.00			716.09	0.67	1.01
EA040072C1	sandstone	Muscovite	0.53	Paragonite	0.46	62.38	2.55	0.97
EA040073C1	sandstone	Dickite	0.65	Nacrite	0.34	71.76	10.31	0.75
EA040074C1	sandstone	Nacrite	0.52	Illite	0.47	167.51	2.19	0.94
EA040075C1	sandstone	Paragonite	0.57	Dickite	0.42	189.12	3.55	0.94
EA040076C1	sandstone	Paragonite	0.53	Muscovite	0.46	59.88	1.84	0.99
EA040077C1	sandstone	Paragonite	0.55	Muscovite	0.44	30.10	2.4	0.96
EA040077C2	sandstone	Aspectral				5000.00	0.59	1
EA040078C1	sandstone	Paragonite	0.52	Muscovite	0.47	125.65	1.37	1
EA050200	coarse grained sandstone	Kaolinite	1.00			365.51	1.49	1.01
EA050201	coarse grained sandstone	Illite	1.00			661.78	0.84	0.99
EA050202	coarse grained sandstone	Kaolinite	0.62	Paragonite	0.37	92.36	1.95	0.96