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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 5

TENEMENT NAME LAKE BARRINGTON No. .....

LOGGED BY: J. COUPER

CO-ORDINATES 4600E 4978N AZIMUTH 213° MAG DRILLERS PARRY COMMENCED 29·10·80 DEPTH 298m HOLE No. DDH0 48.2

RL COLLAR ..... INCLINATION 46·5° DRILL TYPE BOYLES COMPLETED 19·11·80 CASING LEFT 21m NW (12-33m) DPO No(s) 26476

DEPTH From (M)	DEPTH To(M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ZINC CORP.) PPM. Pb	Zn	Cu	Ag	Au
0	3				TRICONED - NO CORE.										
3	27·4	24·2	NQ		BRECCIO-CONGLOMERATE. With alternating siltstone and shale. Bedding ∠ ca. varies 5°–85°, average 30°. Graded bedding in siltstones facing ? down hole.	Pyritic seams, mod oxidised, at: 22·1m, 22·4m, 22·8m, 23·1–23·8m >5% sulphides.									
							816002+	21	24	3	27	53	620	1	
27·4	49·5	21·3	NQ		SILTSTONE AND SHALE. Pale grey, banded. Graded bedding facing down the hole ? Bedding ∠ ca 20°.	31·5m > 10% sulphides. Trace disseminated py 36·9m. Carbonate veins.	003+	24	27	3	7	94	150	<1	
							004+	27	30	3	7	76	130	<1	
							005+	30	33	3	7	49	110	<1	
49·5	50·0	0·5	NQ		TUFF. Fine grained, siliceous. Brecciated										
50·0	51·7	1·4	NQ		INTERMEDIATE LAVA OR INTRUSIVE. Soft, pale green, altered (sericite, carbonate). Frequent ankerite-chalcedony amygdales 1-2mm. Sericitised plagioclase phenocrysts.	∠ ca 60° at 51·7m. Petrological sample 795600 taken at 51m.									
51·7	53·0	0·9	NQ		BROKEN ZONE. Clay and Tuff-shale breccia.										
53·0	54·6	1·50	NQ		TUFFACEOUS GRIT. Fine to medium grained, quartzose, gritty, partly brecciated.										

+ – indicates grind sample.

963018

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2 of 5.

TENEMENT NAME. LAKE BARRINGTON No. .....

LOGGED BY: J. COUPER

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH 298m HOLE No. DD 90 LB1

RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s). 26476, 482

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ZINC CORP.) ppm Pb	Zn	Cu	Ag	Au
54·6	73·9	19·4	BQ		TUFFACEOUS GRIT – CONGLOMERATE Shale and siliceous tuff 55·2 – 56·2m.	Minor qtz-carbonate veins, often leached, pyritic mineralisation associated with the veins. 61·3 – 61·8m >5% sulphides. 68m, 68·4 – 68·6m >10% sulphides.	816006+	60	63	3	9	70	77	<1	
							007+	63	66	3	11	60	44	<1	
							008+	66	69	3	9	49	160	<1	
							009+	69	72	3	9	55	110	<1	
73·9	74·2	0·3	BQ		ALTERED INTERMEDIATE LAVA OR INTRUSIVE. of 50 – 51·7m.	Banding < ca 45°.	816010+	81	84	3	11	84	410	<1	
							11+	84	87	3	37	100	260	1	
							795522	87	88	1	46	74	4600	2	<.04
							23	88	89	1	24	32	2900	1	<.04
74·2	91·0	16	BQ		TUFFACEOUS GRIT Minor siliceous zones. Crude banding. Puggy broken zone 90·9 – 91m.	py + cp ? – minor, in veins + fractures. py >10% in ghost breccia zone 84·6 – 85·1m.	24	89	90	1	33	43	220	1	<.04
							816013+	90	93	3	39	91	680	2	
							14+	93	96	3	18	96	320	1	
							15+	96	99	3	17	75	180	1	
							16+	99	102	3	12	57	310	<1	
91·0	141·8	50·4	BQ		PORPHYRITIC RHYOLITE LAVA. Pale coloured, with quartz phenocrysts and sericitised feldspar phenocrysts, in sericitic, carbonated groundmass. Weak flow banding. Petrological samples: 795599 at 97m + 795598 at 140m.	1-2% py ± cp, in veins and irregular, assoc ē common qtz-carbonate veinlets and ferruginous alteration, down to approx 118m. 118 – 125m: Abundant py up to 10% sulphides in veins and irregular with subordinate qtz vein. 125 – 141·8m: Minor veining with traces of py + cp.	17+	102	105	3	11	59	210	<1	
							18+	105	108	3	16	67	89	<1	
							19+	108	111	3	9	75	200	<1	
							020+	111	114	3	11	170	210	<1	
							021+	114	117	3	13	149	180	<1	
							22+	117	120	3	39	124	230	1	
							23+	120	123	3	39	107	190	1	
							24+	123	126·7		25	73	270	1	
							25+	126·7	129		11	91	120	<1	
							26+	129	132	3	27	250	230	<1	
							27+	132	135	3	21	330	340	<1	
141·8	153·7	11·7	BQ		TUFFACEOUS GRIT – CONGLOMERATE As above. Black shale clasts common.	Minor pyritic seams. 10cm qtz vein ē trace py-cp at 151·3m. Banded py 153·9 – 154m >10% sulphides.	28+	135	138	2·8	13	165	480	<1	
							816029+	138	141	3	4	56	1260	<1	

+ + indicates grind sample.

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SHEET No. 3 of 5

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

TENEMENT NAME LAKE BARRINGTON No. .....

LOGGED BY: J. COUPER

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH 298m HOLE No. DD 80 LB2

RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s) 264.82, 84.7

DEPTH From (M)	DEPTH To(M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ZINC CORP) ppm Pb	Zn	Cu	Ag	Au
153.7	170	12.3	BQ		ACID INTRUSIVE (GRANOPHYRE). Fine grained, crudely banded ∠45°/ca. Altered - sericite, carbonate, Sericitised feldspar phenocrysts. Qtz-carbonate veins common. Breccia zone 168.6-169.7m. Petrological sample 795597 taken at 167.7m.	Py > cp in qtzose breccia 154.5-154.7m. Qtz-carb veins common ± Minor py < trace cp in veins + blebs < 2%. Rare blebs of gn in carbonate.	795519	153	153.7	0.7	26	83	450	<1	<.04
							20	153.7	155.1	1.2	75	85	1140	3	<.04
							21	155.1	156	0.8	190	62	190	1	<.04
							795526+	156	159	1.65	520	151	190	1	
							27+	159	162	0.95	400	156	1030	3	
							816031+	162	165	3	86	178	1000	2	
							32+	165	168	3	67	230	1560	3	
							33+	168	171	3	470	890	3000	6	
170	195.50	25.2	BQ		ALTERED RHYOLITIC TUFFS Mainly fine altered (sericite - carbonate) vitric tuff or vitric crystal tuff with small qtz eyes. Silky to sandy texture with rare lithic clasts. Crude banding. (10° ∠ Ca @ 182.5-188.9m). Py in qtzose zones 170-182.5m. Brecciation 188.9-193.2m. Bedding 20° ∠ Ca at 193m. Petrological samples: 795596 @ 179m; 795594 @ 187m.	170-182.5m: Py > cp 1-5% in veins, trace disseminated sulphides. Qtz-carbonate veins common. 182.5-188.9m: Cp > py up to 2% assoc ± qtz-carb veins. Massive irregular cp in breccia at 182.5m. Cp > py in 2-5mm vein at 189m. Cp > py in veins over 30mm at 189.4m. Cp > py > 5% 190.9-191.3 in veins and irregular bands.	34+	171	174	3	45	158	2100	4	
							35+	174	177	2.7	30	350	1410	2	
							36+	177	180	3	16	91	1720	2	
							37+	180	183	3	58	340	2000	2	
							38+	183	186	3	42	280	340	1	
							816039+	186	189	3	30	97	1490	2	
							795576	189	190	0.95	26	55	1380	2	<.04
							17	190	191	1	39	68	8300	11	<.04
							18	191	192	1	1660	2700	7000	11	<.04
							816041+	192	195.5	3.5	41	150	530	1	
							42+	195.5	198	2.5	21	124	380	<1	
195.50	205.90	9.2	BQ		TUFF-SHALE fine grained, finely banded, dark grey with siliceous silky bands ∠ Ca 25°.	Upper contact ∠ Ca 60° on qtz vein. Qtz-carb veins common often in bedding (1-2mm). Trace py.									

+ - indicates original sample

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 4 of 5

TENEMENT NAME LAKE BARRINGTON No. .....

LOGGED BY: J. COOPER

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH 298m HOLE No DD 80 LB 2

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) 26482, 76, 84,

DEPTH From (M)	DEPTH To(M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ZC,) ppm Pb	Zn	Cu	Ag	Au
205.90	212.30	6.6	BQ		INTERMEDIATE INTRUSIVE OR LAVA (MICRODIORITE?) Coarse gr. Porphyritic, with sericitised feldspars - conspicuous. Lesser altered pyroxene phenocrysts, in sericite-carbonate groundmass. Distinct pale green colour. Weak flow banding. Petrological sample 795595 at 207m.	Scattered fine qtz-carb veins. Nil sulphides.	816043+	213	216	3	760	980	170	<1	
							44+	216	219	3	360	1040	62	1	
							45+	219	222	3	470	2300	830	3	
							46+	222	225	3	44	133	360	<1	
							795513	225	226	1	26	40	160	1	<.04
							14	226	227	1	61	60	5600	4	<.04
							15	227	228	1	22	47	520	1	<.04
							795528+	228	231	3.1	57	96	1330	2	
							29+	231	234	2.95	70	86	540	1	
							795530+	234	237	3	24	61	600	1	
212.30	226.2	13.90	BQ		TUFF-SHALE	Trace Cp - 6m - veins + fractures.	31+	237	239	2	58	87	550	1	
					As before. Finely banded ∠ca 30° In breccia: trace cp > py		32+	239	241	2	30	64	870	1	
					Many qtz-carb veinlets, much carbonate in breccia 225.9-226.2m	disseminated in qtz-rich bands.	816048+	241	244	3	16	67	660	2	
							49+	244	247	3	22	81	830	2	
							795509	247	248.5	1.5	30	68	6000	4	<.04
276.2	282	5.10	BQ		ALTERED RHYOLITIC TUFFS.	Heavy cp > sp(?) in qtz-carbonate	10	248.5	250	1.5	35	67	4000	3	<.04
					Largely poorly-sorted, sandy, lithic-vitric crystal tuff.	@ 226.8-226.9.	11	250	251.5	1.5	28	53	630	1	<.04
						Banded py 241.4-241.5m.	12	251.5	253	1.5	190	270	1720	2	<.04
					(Petrologist says probably subaerial)	Qtz-carb veins common (predate	816052+	253	256	3	58	128	1600	3	
					-see samples 795592 @ 255m +	the weak schistosity as all are	795533+	256	259	3	28	130	810	1	
					795591 @ 270m; 795593 @ 283m	stressed), c. py > cp. esp: 237.2;	34+	259	262	3	14	47	500	1	
					Moderately altered - (qtz-sericite	237.9; 237; 246.8-247.5; 249.1-249;	35+	262	265	2.96	15	60	300	1	
					-carbonate) and weakly schistose	250.5-251.4; 258.7; 265.5;	36+	265	268	3	23	87	1350	2	
					Small qtz eyes, sericitised	Heavy cp in 4×10mm veins	816053+	268	270	2	11	69	630	<1	
					feldspar phenocrysts, glass shards	271-271.6m.	795501	270	272	1.85	12	30	3400	3	<.04
					and vague lithic clasts of tuff	Total cp ≈ 3% 273m-279.1m	02	272	274	1.8	12	32	4500	3	<.04
					and lavas. Some black shale	(inc 40mm qtz-cp vein 273.3m)	03	274	276	1.85	16	68	2900	2	<.04
					clasts 247-250m. Matrix now	279.1-280.4m > 10% sulphides.	04	276	278	1.95	16	71	1580	2	<.04
					qtz-sericite-carbonate after	from 280.4m, trace only cp + py.	05	278	280	2	14	71	6700	4	<.04
					glass.		06	280	282	2	14	55	2000	1	<.04

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 5 of 5

TENEMENT NAME LAKE BARRINGTON No. .....

LOGGED BY: J. COUPER

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD 80 LB 2

RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s) 26482, 76, 84

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ZC, ...) Pb (ppm)	Zn (ppm)	Cu (ppm)	Ag (ppm)	Au (ppm)
					Some very fine gr siliceous vitric tuff and minor banded shale, 273·7-282 m.										
282	298	16·2	BQ		TUFF-SHALE Siliceous. Mainly finely banded dark shale with pale siltstone bands as above (vitric tuff). ∠ ca 10°-30° Rock generally harder-silicified.	Wh-carb veins common. Good traces of cp + py in veins esp // to bedding. 10mm cp vein at 293·3 m.	795507	282	284	1·7	9	21	2500	1	<·04
							08	284	286	2·2	6	17	1240	1	<·04
							816062+	286	288	1·9	5	53	850	<1	
							795537+	288	290	2	18	47	110	<1	
							38+	290	292	2·05	26	52	930	2	
							39+	292	294	2·05	32	94	3400	2	
							40+	294	296	2	16	44	230	<1	
							41+	296	298	1·7	27	53	130	2	
					END OF HOLE.										

EASTMAN DOWNHOLE CAMERA SURVEYS:

Depth:	Azimuth	Dip
30m	213°	-44·5°
60m	212°	-44·5°
90m	212·5°	-43·5°
120m	213°	-42°
150m	213°	-40·5°
180m	213°	-40·2°
210m	213°	-38·3°
240m	215°	-36·5°
270m	215°	-33°.

Best Intersections:

	From (M)	To (M)	Int.	Pb (ppm)	Zn (ppm)	Cu (ppm)	Ag (ppm)	Au (ppm)
	87	89	2	35	53	3750	1	<·04
	190	192	2	850	1385	7650	11	<·04
	226	227	1	61	60	5600	4	<·04
	247	250	3	32	67	5000	3	<·04
	270	286	16	13	46	3100	2	<·04
incl:	278	280	2	14	71	6700	4	<·04

+ - indicates grind sample