CRA EXPLORATION PTY. LIMITED
DRILL-HOLE SUMMARY LOG

428057

Graphic Log

HOLE NAME: DD96ZA2 AMG EAST 355609 NORTH 5357297

PROSPECT AVEBURY GRID EAST NORTH

E: ZEEHAN 1 EL 28/88 RL DEPTH

DATE DRILLED: 31/12/96

LOGGED BY:

DRILLING CO.: ALMAC

DRILL TYPE: DIAMOND

DRILL RIG: LF70

DOC DRILL CORE: ZEEHAN

SURVEYS:

DEPTH	AZIM (AMG)	DIP	DEPTH	AZIM (AMG)	DIP
0	352°	48°			
50	005°	50°			

OBJECTIVES OF HOLE:

LITHOGICAL SUMMARY:

FROM	TO	FORM CODE	COMMENTS
0	2		Overburden
2	44		Andesitic, porphyritic lava
44	66		Mixed fine grained porphyritic lavas, agglomerates / breccias?
66	88		Carbonate magnetite skarn unit.
88	122		Serpentinite with magnetite (diminished to semi massive)
122	168		Dacitic volcanics
168	174		Shear zone
174	195		Serpentinite with disseminated magnetite.
195	246		Rhyolites → Dacites, chloritized.
246	255.5		chloritized rhyolites → Dacites with fine grained granite? → brown serpentine unit.

MINERALISATION SUMMARY:

FROM	TO	COMMENTS

CONCLUSIONS:

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

428058

SHEET No. 1

TENEMENT NAME ZEEHAN 1 No. .....

PLAN – MAP REFERENCE AVEBURY

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ALMAC ..... COMMENCED 31/12/96 DEPTH ..... HOLE No. DDA6ZA 2

RL COLLAR ..... INCLINATION ..... DRILL TYPE LF70 ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

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 .....) From (m)	To (m)	Width (m)	%
0	2	–	–	–	Overburden - not recovered						2	3.5	1.3	
											3.5	5	1.5	100
2	5.9	75	5x		Ferruginous clay/rock more iron/rusty at top of unit.						5	6.5	1.2	80
											6.5	7.4	0.7	77
											7.4	7.7	0.25	83
											7.7	9.2	1.50	100
5.9	15.0	90	1f		Partially weathered Grey/green volcanic rock probably tuff material or Agglomerate End of HQ @ 15m.	Silicified and chloritised Purple mineral <1mm blebs disseminated throughout core possibly carbonate. Almost porphyritic - med/coarse grained.					9.2	10.7	1.5	100
											10.7	12.2	1.5	100
											12.2	13.7	1.5	100
											13.7	15.0	1.3	100
											15.0	17.0	2.0	100
											17.0	19.8	2.8	100
											19.8	21.0	1.2	100
15.0	42.0	100	1f		Start of NQ Green/grey volcanic rock probably an andesitic/dacitic lava/agglomerate. Locally porphyritic (med/coarse grained) localised intraformational brecciation; hints of presence of amygdales.	Strongly silicified and chloritised - chlorite more prevalent downhole. Purple/offwhite mineral disseminated thro' rock probably carbonate or smectite. Zones of massive fine grained chlorite after 30m? veins. No qtz or carb veins unsheared core - no sulphides.					21.0	23.0	2.0	100
											23.0	24.9	1.9	100
											24.9	27.9	3.0	100
											27.9	29.0	1.1	100
											29.0	32.0	3.0	100
											32.0	35.0	3.0	100
											35.0	38.0	3.0	100
											38.0	40.2	2.2	100
											40.2	42.0	1.8	100
											42.0	44.0	2.0	100
											44.0	46.2	2.2	100
											46.2	48.0	1.9	100
42.0	48.5	100	1f		Finer grained porphyritic andesitic lava.	Chlorite alteration Minor zones of silicification 2 phases of chlorite Purple mineral not olivine.					48.0	50.0	2.0	100
											50.0	53.0	3.0	100
											53.0	56.0	3.0	100
											56.0	59.0	3.0	100
											59.0	62.0	3.0	100
											62.0	65.0	3.0	100

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET [redacted] 2 [redacted]

428059

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD96ZA2

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

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.....)
48.5	51.7	100	1f		Mixed fine grained andesitic lava and porphyritic lava.	Localised reappearance of purple mineral. Highly variable alteration patterns - mainly chloritisation +/- silicification					
51.7	56.4	100	1f		Fine grained porphyritic andesitic lava; occ clasts suggesting agglomeratic generally quite uniform.	Chloritised.					
56.4	58.0	100	1f		Volcanic breccia with rounded clasts in a partially silicified chlorite/ carbonate ... matrix ?lapilli tuffs.						
58.0	62.0	100	2f		Fine grained porphyritic lava with possibly large amygdales	Chloritised. Localised variable alteration in 2nd phase chlorite, silica (+/- carbonate + serpentine).					
62.0	63.8	100	1f		Thermally altered fine grained lava.	Possible small scale sphalerite (Dark Brown/red) veining 25° t. c/A. 2nd phase chlorite alteration abundant.					
63.8	68.4	100	1f		Lt grey/green soft unit Probably chlorite, carbonate (calcite) and serpentine - minor qtz as ?clasts.	Upper contact 60° t. c/A. Disseminated magnetite Sharp increase in magnetic susceptibility.					

From	To (M)	Rec (M)	%
65.0	68.0	3.0	100
68.0	69.3	1.2	90
69.3	71.0	1.7	100
71.0	74.0	3.0	100
74.0	77.0	3.0	100
77.0	80.0	3.0	100
80.0	83.0	3.0	100
83.0	86.0	3.0	100
86.0	89.0	3.0	100
89.0	92.0	3.0	100
92.0	95.0	3.0	100
95.0	98.0	3.0	100
98.0	101.0	3.0	100
101.0	104.0	3.0	100
104.0	104.5	0.5	100
104.5	109.3	2.85	95
107.5	110.5	3.0	100
110.5	113.5	3.0	100
113.5	116.5	3.0	100
116.5	119.5	2.85	95
119.5	122.5	3.0	100
122.5	125.5	3.0	100
125.5	127.5	2.0	100
127.5	129.0	1.4	92
129.0	131.0	2.0	100
131.0	133.4	2.7	100
133.4	133.8	0.15	375
133.8	135.1	1.05	85
135.1	137.0	1.9	100
137.0	139.2	2.2	100
137.2	140.0	0.8	100

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. .....

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

428060

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DD96ZA2

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

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 .....) From (m)	To (m)	Rec. (m)	%
					Qtz vein with associated magnetite 67.7-68m.	Minor calcite veins generally 70° to c/A. Clots of reddish brown sphalerite from 66m onwards (< 1cm ea.) Dissem. sphalerite zone 3cm @ 67.55m. in ? limestone.					140.0	143.0	3.0	100
											143.0	146.0	2.85	95
											146.0	149.0	3.0	100
											149.0	152.0	3.0	100
											152.0	153.3	1.0	76
											153.3	154.8	1.3	75
											154.8	155.5	0.7	55
3.4	68.8	100	1f		Qtz - carbonate vein	Diffuse contact - upper lower contact 45° to c/A.					155.5	158.0	2.5	100
											158.0	161.0	2.9	98
											161.0	164.0	3.0	100
68.8	70.95	100	2f		Dk grey/black magnetic unit	Abundant disseminated (10%) sphalerite (+/- pyrrhotite) localised zones of pyrite irregular calcite veins and vugs lower contact 75° to c/A but irregular.					164.0	167.0	2.85	95
											167.0	170.0	3.0	100
											170.0	172.6	2.6	100
											172.6	175.7	3.1	100
											175.7	178.8	3.1	100
											178.8	181.6	2.8	100
											181.6	184.6	3.0	100
											184.6	187.7	3.1	100
70.95	72.6	100	1f		Lt grey/green unit calcareous - possibly replaced clean limestone. Strong possibility of serpentine alteration	Partially silicified. minor pyrite dissem blebs - ? calcsilicates.					187.7	189.2	1.4	97
											189.2	189.9	0.7	100
											189.9	191.7	1.2	95
											191.7	193.4	2.0	100
											193.4	196.4	3.0	100
72.6	72.75	100	1f		Calcite/serpentine/magnetite vein with large < 3cm mass of pyrite, sphalerite + chalcopyrite	Vein contacts 85° to c/A.					196.4	199.4	3.0	100
											199.4	200.0	0.5	95
											200.0	203.0	3.0	100
											203.0	206.0	3.0	100
72.75	73.65	100	4f		Green/Dark Turquoise calcareous unit.						206.0	209.0	3.0	100
											209.0	211.9	2.9	100
											211.9	214.4	2.5	100
											214.4	217.4	3.0	100

C.R.A. EXPLORATION PTY. LIMITED

428061 DRILL CORE LOG

SHEET No. 4

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DD96ZA2

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

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 .....) From (m)	To (m)	Rec (m)	%
73.65	75.0	100	if		Lt grey/green calcareous unit – replaced limestone	?clasts of sphalerite (reddish brown) locally.					217.4	220.5	3.1	100
											220.5	223.6	3.1	100
											223.6	226.6	3.0	100
75.0	82.7	100	if		Magnetite – carbonate – serpentine altered limestone unit. locally semi-massive magnetite magnetite as disseminated blebs <2mm in size.	Diseminated veinlets of pyrite. Minor blebs of sphalerite. Weakly calcareous at base – ?calcsilicates present.					226.6	229.6	3.0	100
											229.6	232.6	3.0	100
											232.6	234.6	1.3	95
											234.6	236.6	2.0	100
											236.0	236.8	0.8	100
											236.8	239.0	2.2	100
82.7	83.05	100	if		3-4mm disseminated magnetite zone	with blebs of reddish/brown sphalerite.					239.0	242.0	3.0	100
											242.0	245.0	3.0	100
											245.0	248.0	3.0	100
83.05	86.0	100	if		Grey/dark grey/green carbonate magnetite-serpentine unit possible calcsilicates.	Occ blebs of pyrite. + minor sphalerite.					248.0	250.9	2.9	100
											250.9	252.5	1.6	100
											252.5	254.0	1.5	100
											254.0			
86.0	[illegible]				Magnetite-Carbonate-serpentine unit with semi-massive magnetite	Minor pyrite blebs (2-5mm) or disseminated veinlets.								
87.7	90.7	100	if		Grey/dark grey carbonate-magnetite-serpentine unit	Minor pyrite & sphalerite blebs (2-5mm).								
90.7	93.3	100	if		Magnetite-carbonate-serpentine unit – semi massive magnetite.	Minor pyrite blebs.								
93.3	102.2	100	if		Grey/dark grey carbonate magnetite-serpentine unit.	Minor pyrite & pyrrhotite blebs. Magnetite (semi massif) areas ~3-8cm bands and blebs occur every 20-40cm.								

C.R.A. EXPLORATION PTY. LIMITED

428062 DRILL CORE LOG

SHEET No. .....

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. 00962A2

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

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 .....)
102·2	104·5	100	HF		Dark grey magnetite – carbonate – serpentine unit. Semi massive magnetite.	Pyrite blebs & veinlets 2-5mm wide occur.					
104·5	109·2	95.	HF		Grey / light grey carbonate, magnetite – serpentine unit with minor Chl. Some areas are quartz rich (cream colour).	Tiny specks (3-8 mm) pyrite + pyrrhotite are rare.					
109·2	110·5	95			Dark grey/grey serpentine chlorite rock with green tinge. Very chlorite rich. Contains carbonate (bubbles). Very similar to serpentinite although contains very little if any magnetite (mag. susc ≈ 50).	No sulphides seen. Rare sphalerite (brown) blebs ~ 5-12 mm – some subhedral shapes.					
110.5	115.45	100			Grey/light grey serpentine – Minor chlorite ___ Magnetite and carbonate rock. Rock often cream ___ grey/green. Magnetite is disseminated and very rare (small 2-5mm) specks.	No sphalerite seen. Pyrite + Pyrrhotite are very rare. Rare silvery grey, very soft mineral (molybdenite?) blebs ~3mm occur. Magnetite is rare (mag. susc < 100)					

C.R.A. EXPLORATION PTY. LIMITED

428063 DRILL CORE LOG

SHEET No. .....

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD962A

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

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.....
15·95	118·4	95			Dark grey/green serpentinite containing carbonate veining veins. Large yellow/green to cream irregular blebs (1-6cm thick). occur, mainly at 116·5 and 117·5m. This mineral may be epidote? Core gradually becoming more silicified.	Sulphides are extremely rare. Magnetite & sphalerite also not seen.					
118·4	120·4	100			Grey to light grey rock with greenish tinge. Contains carbonate, chlorite is minor, qtz mainly. Minor epidote? Texture appears silicified serpentinite – mainly qtz now.	No magnetite, sulphides or sphalerite seen. Occ large, rounded qtz clast? - pinkish. (5cm ada).					
120·4	120·7	100			Dark grey green serpentinite. Hard - slightly silicified. Contains carbonate along fractures & veins.	Sharp contact at 80° to long core axis.					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. .....

TENEMENT NAME ..... No. .....

428064

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DD86A2

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

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 .....
120·7	123·5	100			Grey to light grey rock with green tinge. Contain carbonate + chlorite + serpentine – Mainly Qtz Epidote? minor as whispy patches. Some areas (qtz) appear brecciated. Some qtz areas slightly resemble clasts.	Very minor mineralisation seen only – magnetite sphalerite and sulphides A small anhispy blob of sphalerite? at 121.45 occurs.					
123·5	133·0				Dark grey brownish chlorite – serpentine quartz rock with minor carbonate along fractures and some veins. Brownish grey make up the majority of the rock.	Irregular layering (1–10mm brown & grey bands) generally intersect the long core axis at ~65 ~~90~~° but can change suddenly to ~20°. Virtually no mineralisation seen.					
133·0	135·0				Some Dark greyish/brown, serpentine, chlorite + quartz-rich rock with lesser carbonate. ~~Some~~ qtz clasts? appear brecciated.	Pyrrhotite veinlets and blebs, often containing pirite are common. Pyrite blebs also occur. Mineralization mainly occurs along fractures.					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

428065

SHEET No. .....

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DD86ZA2

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

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 .....)
135.0	136.0				Dark grey/brownish – serpentine, chlorite, quartz rich rock with lesser carbonate along some veins & fractures. Minor yellow/green epidote? blebs. (1–2cm) Some qtz areas appear to be coarse sand to pebbly clasts. often brecciated.	Very little, if any. sulphides - magnetite or sphalerite. or filled vesicles.					
136.0	166.4				Grey, slightly green very quartz rich rock. Very similar appearence to (above) but very little brownish component. Contains slightly more carbonate, still mainly along fine fractures. Chlorite, minor serpentine and carbonate, silicified rock with brecciated quartz clasts set in a very fine grained dark grey qtz rich matrix. Subtle banding forms at ~60° to c Axis at 162.	Layering absent. Epidote? whispy blebs minor. Sulphide & magnetite & sphalerite not seen. Calcite (carbonate) decreases with depth. (still along fine fractures only). Intercepted water at fracture zone (154.9–155.3) Serpentine is very rare. Minor amounts of pyrite as small <1cm blebs are rare. At 161m - Survey: 350° at 50° dip					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

428066

SHEET No. .....

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD9672A2

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

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.....)
166.4	171.0	95			Extremely Brecciated & fractured core - Possibly fault zone. Grey/light grey, slightly green - Quartz rich, chlorite serpentine, and minor calcite rock. Brecciated & silicified texture. No magnetism at all (0 on the Mag Susc)	Slight banding ~ intercepts b/c Axis at ~ 65°. Very little sulphides, magnetite or sphalerite IF ANY. Some areas are very chlorite rich (large fractures) with fibrous textures. Calcite is common along fractures. Pyrite occurs along some fracture surfaces.					
171.0	171.7	100			Dark grey - Magnetite - quartz - serpentine - with minor chlorite & carbonate. Carbonate along fine fractures only. Magnetite locally semi-massive. (10,000+)	Minor pyrite occurs along some fractures. Pyrrhotite & sphalerite not seen. Rare fine pyrrhotite blebs occur within magnetite blebs.					
71.7	190.0				Very dark Grey, slightly green Serpentinite unit with irregularly shaped and sized magnetite blebs. (20,000 to 40,000 mgSus) Light green blebs become rarer with increased depth, forming a very dark grey/blue serpentinite, → slightly less magnetic.	Light green blebs (serpentine) sometimes form crude bands intersecting b/c axis at ~ 70°. Very minor — pyrite & pyrrhotite. Sphalerite not seen. Pyrrhotite (as tiny blebs ~ 1-5mm) gradually increase in abundance with depth. The most pyrrhotite seen					

C.R.A. EXPLORATION PTY. LIMITED

428067 DRILL CORE LOG

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD86ZAC

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

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.....
171·1	190·0					occurs between 184·6m and 185·6m – as small (2–8mm) blebs randomly dotting the core, forming ~1% of the core at most.					
190·0	190·20				Very dark grey serpentinite containing magnetite and a large, almost semi massive bleb (10cm across) of pyrrhotite. Minor pyrite also occurs Carbonate occurs along very fine fractures	Large pyrrhotite bleb, minor pyrite – magnetite rich (~30.000 mag susc.).					
190·20	190·50				Dark grey/green serpentinite unit containing magnetite. Fine fibrous serpentine bands (1–6mm thick) cut the long core axis at ~ 60°.	Fibrous bands often braided.					
190·50	191·3				Gradual grading from green/dark grey magnetic serpentinite to quartz magnetite bearing serpentine rock – light grey/grey rock containing dark grey magnetite blebs often with pyrrhotite.	Magnetite associated with pyrrhotite. – Forming blebs ~ 0·5–2·5cm across. Calcite (carbonate) forms along small fractures.					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

428068

SHEET No. .....

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD96A2

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

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.....)
191·3	191·9				Dark grey magnetite and minor pyrrhotite bearing serpentinite unit. Fibrous serpentine veins or bands are only minor. 2 large calcite veins 191·3 & 191·9 (both ~2cm thick) cut the C/A at ~65°. Between the two veins, brown whispy mineral (possibly sphalerite) forms, making up ~15% of the core in this area.	Sudden change from qtz mag. to this unit. Contact ~65° to long C/A. Magnetite & pyrrhotite blebs occur. Some pyrrhotite forms along edges of a 1-2mm thick carbonate vein.					
191·9	193·5				Grey to light grey, slightly green quartz rich rock with chlorite and minor serpentine. White quartz clasts? form crude bands cutting the long C/A at ~60°. Semi massive chlorite blebs & irregular veins occur.	No magnetite or sphalerite seen (mag. susc < 40). Sulphides very rare. Calcite occurs along some veins.					
193·5	196·0				Dark grey/ brown, quartz unit. Serpentine forms along / veins bearing chalcopyrite & pyrrhotite.	Virtually no carbonate. Pyrrhotite forms veinlets & blebs up to 8mm thick (av ~3mm) and is associated with chalcopyrite (occurs together).					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

428069

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DD96ZA2

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

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 .....)
193.5	196.0				No banding occurs within the unit.	Pyrite veins along fractures. Rock slightly magnetic (~ 200 - 400 mag. susc.).					
Continued.											
196.0	200.15				Grey to light grey, slightly green quartz rich unit containing semi-massive chlorite blebs. White quartz, sulphide + Chlorite bands have irregular orientations. Serpentine is minor.	Very little sulphides No magnetite or sphalerite occur. Some areas have small white dots - possibly filled vesicles.					
200.15	202.0				Light grey, slightly green quartz rich unit containing chlorite blebs. White / green bands in this unit are very abrupt and fine (2-5mm wide). They have wavy orientations but generally intersect the long core Axis at ~ 60-70°.	Very little to no sulphide, magnetite or sphalerite. Calcite occurs along fractures.					
202.0	205.0				Grey to light grey, slightly green, quartz rich unit containing chlorite blebs & calcite blebs. Grey / green bands apparent.	Calcite blebs (0.5-2cm) and fine calcite veins occur. Banding cuts to C/A at ~ 40°. No sulphides, sphalerite					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. .....

TENEMENT NAME..... No. .....

428070

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DDR624

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

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.....)
205.0	207.05				Grey to dark grey, quartz rich rock containing crude, light & dark grey bands, generally at ~60° to L C/A. Some bands or areas could be clasts? as they appear to have slight grain size differences.	Minor magnetite (200-400 mag. sus.). Pyrrhotite blebs & veinlets occur randomly throughout this unit - pyrite also occurs along fractures. Carbonate occurs along some fractures. Minor sphalerite blebs occur. Chalcopyrite? minor also.					
207.05	221.0				Light grey/grey, slightly green quartz rich unit containing chlorite blebs (wispy). Some areas have small white spots. Grey, green, white banding can vary from very fine (mm) to cm scale & can be very planar & parallel OR irregular.	Carbonate disseminated throughout - fine white veinlets. Small sphalerite blebs rare. Sphalerite often associated with carbonate blebs. Chalcopyrite (minor) associated with pyrrhotite. Pyrite minor - occurs along some fractures.					
221.0	225.6				Light grey/grey, slightly green, quartz rich unit containing minor chlorite blebs. Rock looks same as above - but contain	Carbonate only occurs along fine fractures Pyrrhotite blebs & veinlets common - containing pyrite & chalcopyrite.					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. .....

TENEMENT NAME..... No. .....

428071

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD86242

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

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.....)
221.0	225.6				Grey / white / green banding not obvious.	Minor magnetite (mag. sus. ~200-400). Hydrolerite blebs minor. Minor pyrrhotite blebs are 1-3 cm wide, occur every ~ 20 cm. - 30 cm Mineralization decreases slightly with increased depth.					
Continued..											
225.6	226.3				Dark grey / grey slightly brown quartz rich unit. Banding not obvious, some areas have light grey spots.	Magnetite, minor (mag sus. 200-500 av. Peight 2000.) Pyrrhotite blebs common Pyrite along fractures common. Pyrrhotite also occurs as veinlets, making up ~3% of the core. Blebs are ~ 1x20 mm large & occur every 1 cm or so, disseminated throughout the rock.					
6.3	229.4				Grey / green quartz rich unit with very subtle, crude banding. Carbonate is minor occuring along very fine fractures or/and	Pyrrhotite veinlets common, blebs less so. Pyrrhotite makes up ~2% of core and veinlets are 1-2 x 20 mm large. Pyrite veinlets +					

[redacted] C.R.A. [redacted] EXPLO[redacted]ATION [redacted] LIM[redacted] SHEET No. ....

DRILL CORE LOG

428072

TENEMENT NAME .... No. ....

PLAN – MAP REFERENCE ....

CO-ORDINATES .... AZIMUTH .... DRILLERS .... COMMENCED .... DEPTH .... HOLE No. DDR6ZA2

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

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 ....)
6.3 continued.	229.4				in some very light grey patches – disseminated with in them. (small patches). Some areas of core are spotted. (Smectite?)	blebs also occur – often associated with pyrrhotite. Rock marginally magnetic (200–500 nagaus, max 2000). An almost semi massive pyrrhotite bleb ~2-3cm thick occurs at 226.6m.					
29.4	236.0				Light grey / green quartz, chlorite unit with minor serpentine along some fractures. Chlorite occurs as semi massive and massive blebs – 1–5cm in size and the core is often fractured (broken) in these areas – at large blebs. Banding rarely seen & is crude.	Pyrite & pyrrhotite are minor – forming rare blebs and occasionally along fine fractures or seams. Magnetism is very low. Carbonate forms along fine fractures & disseminated in very light grey patches – often with chlorite. Sphalerite blebs (2–4mm) are very rare – a few seen at 235.6					
36.0	238.8				Dark grey / slightly brown quartz rich unit containing pyrrhotite & pyrite blebs. Banding is rare. Carbonate is minor.	Pyrrhotite blebs & veinlets are very obvious and common. Some larger ones verge on semi-massive, and some veinlets penetrate the					

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

428073

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD962A2

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

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.....)
36·0	238·8				Chlorite minor - along fractures mainly.	core. Pyrite - some zones associated with pyrrhotite - but mainly occurs along seams, (rare blebs + veinlets). Pyrrhotite makes up ~5% of some areas of core (small areas ~40cm). 236·6m to 236·4. Elsewhere it is ~2-3%. Chalcopyrite: rare.					
38·8	246·0				Light grey/grey + green quartz rich unit containing chlorite blebs. Carbonate along fractures & in some light grey/green patches (disseminated ?) Chlorite blebs often form wavy, elongate shapes - wisps + bands. - crude where banding seen, it intersects the long c/A at ~ 30°.	Pyrrhotite blebs are <1cm and minor. Pyrite mainly along seams. Rock very low magnetic. - Mineralization is minor.					
1460	252·5				Grey/green + brown quartz rich unit. Chlorite blebs + wispy	Carbonate occurs along fine fractures only (minor).					

Max 716687
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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

428074

TENEMENT NAME..... No. .....
PLAN – MAP REFERENCE.....
CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DD96ZA
RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

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.....
246·0	252·5				bands, quartz bands & brown areas & bands are common. Banding is very fine & wavery with irregular angles to the c/a.	Brown areas, associated with chlorite bands are often browner (darker) and soft - possibly spiderite. These areas make up 2-3% of the core. Pyrite is very rare along seams. The rock is NON magnetic & pyrrhotite is very rare.					
Continue					* Brown material is probably brown serpentine.						
252·5	254·3				Grey / light grey / green quartz with rock. Carbonate along veins (1 is 0·5 cm thick at 60° to c/a). and Chlorite is common - blebs & wisps.	Sulphides very rare. Brown patches of spiderite rare. Banding rare.					
254·3	255·5				Dark grey / brown - serpentine, quartz rich unit.	No sulphides. No magnetic.					