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# **IRON CAP ZONE**

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The Iron Cap Zone is a large area of well-exposed, gossanous weathered, intensely and pervasive quartz-sericite-pyrite altered intrusive and volcanic rock at the northeast corner of the claim block. It covers a roughly 500 by 1500 meter, northeast trending area between the Iron Cap glacier and Mitchell glacier.

Alteration is controlled by northeast trending, near vertical structures and associated stockwork fracture and veins. Pyrite content varies from 10% to 70% and averages about 25%. Quartz-pyrite veins up to adveral meters thick occupy some of the structures. Moderate gold values in some of these veins attracted previous explorers and were the focus of trenching and a 3 hole drilling program. Three drill holes intersected wide intervals of low grade copper-gold mineralization (S80-15: 0.35% Cu, 0.53g/t Au / 93m, and S80-11: Cu not analyzed, 0.51g/t Au / 229 m).

Noranda's chip sampling from 2003 and 2004 indicates copper mineralization is widespread but erratic. Forty partially leached rock chip samples collected by Noranda over and area of 1200 m × 300 m from the Iron Cap and adjacent Iron Cap West zone average 0.32% Cu and 1.0 g/t Au. The intense quartz-sericite-pyrite alteration of the Iron Cap Zone gradually weakens to the west and primary intrusive textures can be observed.

Five drill holes totaling 1,246.6 metres were completed at Iron Cap. All holes cut long intervals of very fine grained chalcopyrite mineralization in intensely phyllic altered monzonite. Silicification and hydrothermal breccia textures are common. The degree of schistosity is proportional to the intensity of phyllic alteration. The concentration of pyrite, as disseminations and veins, ranges from 5 to 30% and is also proportional to the phyllic alteration. There is a general trend in style from peripheral mesothermal veins in intense phyllic alteration to porphyry quartz stockwork veining with potassic alteration overprinted by phyllic, going east to west in the drilled area. Potassic alteration also increases with depth towards northwest edge of drilled area. The mesothermal style veins are decimeter scale, with a crude cockscomb banded texture, and polymetallic with pyrite, chalcopyrite, sphalerite, galena, and tetrahedrite or tennantite.

From	То	Lena.	Lithology	Alteration	Cu	Au	Aq	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
3.3	28.6	25.3	monzonite	phyllic	3329	0.43	9.1	67	4.2	12	208	24	471
28.6	50.0	21.4	"black dotted" monzonite	phyllic	2771	0.86	3.7	60	3.9	11	104	2	235
50.0	76.1	26.1	porphyritic monzonite, several intrusive breccias	phyllic	2757	1.33	3.4	47	3.3	5	61	2	113
76.1	129.3	53.2	"black dotted" monzonite	phyllic	928	0.50	1.7	132	4.2	11	23	2	90
129.3	186.4	57.1	monzonite	phyllic	2270	0.24	2.2	31	4.6	16	48	2	185
186.4	205.3	18.9	monzonite	phyllic	2440	0.55	15.3	64	3.7	29	280	39	2539
205.3	249.6	44.3	porphyritic monzonite	phyllic	1019	0.32	1.3	80	3.1	11	17	2	51

Hole IC-05-01 composited values of selected metals for major unit inte
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# Hole IC-05-02 composited values of selected metals for major unit intervals:

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From	To	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
0.9	36.9	36.0	probably monzonite	int. phyilic	1680	0.38	3.2	71	3.5	16	43	3	59
36.9	66.9	30.0	probably monzonite	int. phyllic	3228	0.50	1.5	53	2.7	44	17	3	63
66.9	170.9	104.0	probably monzonite scattered quartz- sulfide veins		2077	0.41	10.1	60	3.3	38	191	21	377
170.9	250.0	79.1	probably monzonite	int. phyllic	1962	0.68	10.6	96	3.6	24	309	14	1157

### Hole IC-05-03 composited values of selected metals for major unit intervals:

From	Ťo	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	ก			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
1.5	18.6	17.1	monzonite	wk phyllic+potassic	3123	0.56	0.6	32	2.5	6	14	2	26
18.6	62.8	44.2	hydrothermal? Brx	phyllic	2666	0.29	1.9	75	3.0	11	122	2	128
62.8	78.1	15.3	hydrothermal? Brx	wk phyllic	1759	0.19	11.4	169	3.3	19	250	330	369
78.1	235.4	157.3	monzonite?	silicified, phyllic	2068	0.26	9.7	161	3.5	15	268	174	564
235.4	249.3	13.9	monzonite	silicified, prop'c	778	0.11	0.6	50	3.0	9	32	2	99

# Hole IC-05-04 composited values of selected metals for major unit intervals:

From	To	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
4.6	8.2	3.6	monzonite?	int. phyllic	407	0.58	6.4	185	4.5	9	713	41	829
8.2	33.4	25.2	fault zone?	int, phyllic	2208	0.40	16.9	311	3.9	12	993	377	1335
33.4	60.2	26.8	monzonite?	int. phyllic	957	0.19	3.2	122	2.1	.14	120	85	278
60.2	93.2	33.0	monzonite?	wk phyllic	1161	0.17	0.6	64	2.5	13	11	2	26
93.2	105.0	11.8	porphyritic monzonite	wk phyllic	2062	0.09	1.0	18	2.1	23	4	2	21
105.0	168.3	63.3	monzonite?	int. phyllic	2293	0.29	1.5	61	2.8	39	95	6	249
168.3	218.0	49.7	monzonite?	wk potassic	2573	0.53	0.6	22	3.7	42	9	3	57
218.0	236.8	18.8	monzonite?	potassic, phyllic	2593	0.39	0.7	6	4.4	12	11	2	69
236.8	248.1	11.3	monzonite?	potassic, silicified	3252	0.81	1.2	42	4.1	17	43	2	459

#### Hole IC-05-05 composited values of selected metals for major unit intervals:

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
4.6	25.6		andesite	wk propylitic	3331	0.17	4.9	27	6.1	8	40	2	70
25.6	75.2		hydrothermal brx	wk propylitic	1803	0.11	2.8	27	4.9	13	199	2	76
75.2	80.5		porphyritic granite	potassic?	474	0.10	5.2	22	2.1	7	403	2	35
80.5	109.7		hydrothermal brx	wk propylitic	1949	0.11	3.3	31	5.0	5	119	2	68
109.7	113.5		porphyritic granite	potassic?	797	0.05	2.0	18	2.2	5	70	2	32
113.5	114.9		hydrothermal brx	wk propylitic	3011	0.08	2.9	20	3.4	4	78	2	68
114.9	124.6		porphyritic granite	potassic?	627	0.03	1.2	7	1.4	5	40	2	18
124.6	129.4		hydrothermal brx	wk propylitic	469	0.08	0.9	20	3.0	4	38	2	42
129.4	177.0		andesite	wk silicification	1197	0.09	1.5	17	4.6	4	57	2	70
177.0	189.0		andesite	wk silicification	566	0.23	4.5	96	4.4	13	655	2	48
189.0	249.6		andesite	wk silicification	1025	0.14	2.0	36	4.9	9	1 <b>69</b>	3	87



IC-05-01 50.5m Phyllic altered monzonite breccia



IC-05-02 228m Phyllic altered monzonite with polymetallic veins



IC-05-03 108m Phyllic altered and silicified rock

IC-05-04 225m Potassic altered monzonite

# NORTH MITCHELL ZONE

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From	To	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	gh	ppm	ppm	%	ppm	ppm	ррт	ppm
4.6	23.4	18.8			1200	0.08	0.7	4	4.4	48	5	2	27
23.4	78.7	55.3			2034	0.13	1.1	9	4.6	55	16	2	41
78.7	85.2	6.5			1026	0.07	0.6	8	4.8	35	13	2	31
85.2	103.3	18.1			1181	0.07	0.9	8	4.4	54	8	2	21
103.3	112.8	9.5			1965	0.07	0.9	11	4.9	71	12	2	34
112.8	132.4	19.6			2284	0.11	1.3	9	4.8	121	7	2	28
132.4	280.8	148.4			1119	0.05	0.8	3	2.1	18	10	2	21
280.8	293.2	12.4			132	0.04	0.4	3	3.0	11	178	2	43

# Hole NM-05-01 composited values of selected metals for major unit intervals:

#### Hole NM-05-02 composited values of selected metals for major unit intervals:

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
3.0	97.4	94.4			171	0.13	0.4	7	3.0	2	13	2	36
97.4	208.1	110.7			297	0.07	0.3	12	3.2	4	9	2	25
208.1	264.1	56.0			1394	0.07	0.9	6	3.5	5	6	2	41
264.1	297.9	33.8			1221	0.07	1.0	8	4.3	8	9	2	44
297.9	321.4	23.5			1450	0.15	3.7	15	4.4	2	271	2	179
321.4	341.1	19.7			847	0.05	5.6	13	3.9	13	840	2	104

### Hole NM-05-03 composited values of selected metals for major unit intervals:

From	To	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			рот	g/t	ppm	ppm	%	ppm	рот	ppm	ppm
5.2	9.3	4.1			1714	0.09	6.1	35	3.6	26	27	27	77
9.3	32.0	22.7			1183	0.03	2.8	9	3.2	8	16	4	108
32.0	56.1	24.1			606	0.02	1.4	12	1.7	2	23	2	58
56.1	85.7	29.6			485	0.16	1.8	45	1.5	2	114	3	122
85.7	96.6	10.9			734	0.20	1.7	48	4.2	3	53	7	96
96.6	115.1	18.5			364	0.04	1.0	24	1.4	3	34	2	50
115.1	167.4	52.3			963	0.06	2.1	15	4.0	7	143	3	158
167.4	184.8	17.4			876	0.09	1.2	7	2.8	3	55	2	95
184.8	216.3	31.5			2118	0.24	2.8	162	4.3	4	128	13	181
216.3	256.9	40.6			2725	0.22	4.4	28	5.2	12	378	2	689
256.9	280.1	23.2			1121	0.11	3.1	17	4.1	12	823	2	308



NM-05-01 94m Silicified, veined andesite



NM-05-01 178m Propylitic-potassic altered, veined granite porphyry



NM-05-01 263m Andesite-granite breccia with magnetite, chalcopyrite



NM-05-01 338.6m Intensely phyllic altered intrusive

### WEST MITCHELL ZONE

The West Mitchell Zone is the westward continuation of the "Mitchell Zone" 750 metres to east. The Mitchell Zone is an area of intensely stockworked and veined, mainly phyllic altered, variably foliated volcanics and monzonitic porphyry exposed over an area of at least 200 by 1000 metres along the south side of the bottom of Mitchell valley at the terminus of Mitchell glacier. The area was tested with three diamono drill holes by previous operators. A geological estimate of 200 Mt grading 0.2% Cu and 0.86 g/t Au has been reported. Very fine grained chalcopyrite and tennantite is associated with a strongly deformed quartz stockwork zone with a strong, pyrite rich phyllic overprint.

Exploration surveys by Noranda in 2003 and 2004 including rock, soil geochemistry and IP surveying indicated the zone continued along Mitchell valley to the west. The degree of deformation and phyllic overprinting appeared to diminish, and magnetite content increased towards a thumbprint like magnetic feature centered about 700 metres west of drill hole S91-395 in the Mitchell Zone. Hole MC-05-01 tested this feature at the approximate projection of the Mitchell Zone. It collared in schistose, foliated sericite-chlorite altered rock with deformed quartz veins. Anomalous copper grades are attributed to fine disseminated chalcopyrite. From 13 to 58.1 metres, the rock is highly schistose and breaks easily along foliation planes. The fissile nature abruptly ends at 58.1 metres, and the intensity of quartz stockwork veinlets gradually increases with depth. Copper and gold grades also gradually increase, but tend to level off towards the bottom of the hole. Increasing grades also appear to correlate with magnetite content and appearance of k-feldspar flooding. The interval from 171.6 to 237.6 assays 0.24% Cu and 1.10 g/t Au over 66 metres. As elsewhere on the property, there is a late set of ragged calcite veinlets which is likely related to regional deformation.

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
3.8	13.0	9.2	Ser-chl schist	phyllic	1140	0.27	1.6	11	3.5	169	33	3	48
13.0	58.1	45.1	Chl-ser schist	Prop'c, phyllic	885	0.24	2.6	13	4.6	116	60	2	222
58.1	65.4	7.3	Foliated andesite	Prop'c	1269	0.33	11.4	24	4.5	269	82	4	378
65.4	282.9	217.5	andesite	Prop'c, Mt, potassic	1897	0.77	3.0	8	5.4	41	32	4	195

#### Hole WM-05-01 composited values of selected metals for major unit intervals:



WM-05-01 26.5m Foliated, sericite-chlorite altered andesite



WM-05-01 66.9m Propylitic altered, veined andesite



WM-05-01 182m Propylitic+potassic altered, veined andesite



WM-05-01 267.1m Potassic altered, veined andesite

# **ICEFIELDS ZONE**

At the Icefields zone, disseminated chalcopyrite, minor pyrite, and trace molybdenite occur in intensely silicified rocks and hydrothermal breccias similar to the Sulphurets Gold zone. The zone appears to be positioned in the footwall of the Sulphurets fault and is likely the continuation of the Sulphurets deposit, which is still open to the northeast of the last drill hele some 500 metres from here. Ten rock chip samples collected in 2004 over a 200 by 200 meter area averaged 0.41% Cu and 0.6 g/t Au, and the zone may extend under thin ice cover for several hundred meters to the north and east. IP line 40 crossed approximately 200 metres south, and local chargeabilities of 25 to 40 mV/V are attributed at least in part to disseminated sulphides in the Icefields zone.

Two holes, inclined towards each other on the same section were collared to test the zone. In hole IF-05-01, fine disseminated chalcopyrite occurs in variably silicified and brecciated rocks down to 121 metres, with grades averaging on the order of 0.2% Cu and 0.2 g/t Au. Below this depth, there is a sharp change in mineral tenor, with copper falling and gold increasing as indicated in the following table. Hole IF-05-02 intersected a phyllic altered, foliated tuff below oxidized till of the same lithology. The phyllic altered foliated tuff may be a mylonitic zone developed at or near the Sulphurets fault. Again, low copper and gold grades are associated with silicification along veins, crackle breccias and hydrothermal breccias. Below a depth of 34.4 metres anomalous copper and gold values are accompanied by anomalous arsenic, lead, and zinc concentrations.

From	To	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
2.7	76.6	73.9	'felsic intrusive?	silicified, prop <sup>-</sup> c	2005	0.12	2.1	27	3.2	1	15	3	454
76.6	79.1	2.5	fspar porphy'c dyke		1943	0.22	3.9	140	3.9	3	10	6	29
79.1	95.6	16.5	basalt	wk silicification	2988	0.28	2.9	66	6.7	2	3	24	135
95.6	133.6	38.0	intrusive brx	silicified	1419	0.22	2.4	130	4.1	6	9	36	67
133.6	152.3	18.7	andesite/intrusivie	wk silicification	284	0.38	1.0	42	5.2	6	10	2	68
152.3	188.3	36.0	felsic intrusive/volcanic	silicified	458	0.30	1.2	132	5.4	18	12	2	47
188.3	252.7	64.4	volcanic/fspar porphyry	silicified	320	0.30	0.9	99	5.0	35	20	4	55

Hole IF-05-01 composited values of selected metals for major unit intervals:

#### Hole IF-05-02 composited values of selected metals for major unit intervals:

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
13.7	18.0	4.3	boulder till		1094	0.07	1.1	25	3.4	10	19	2	55
18.0	23.3	5.3	foliated tuff	wk phyllic	1027	0.06	0.7	9	4.2	38	37	4	59
23.3	26.4	3.1	foliated felsic tuff	phyllic	918	0.19	0.5	11	4.6	17	63	2	96
26.4	34.4	8.0	hydrothermal brx	silicified	4477	1.64	1.9	57	2.7	6	195	7	43
34.4	57.8	23.4	andesite	wk silicification	152	0.20	0.5	62	4.8	5	66	3	116
57.8	134.8	77.0	hydrothermal brx	silicified	200	0.68	1.1	116	5.1	14	65	3	125
134.8	152.3	17.5	felsic tuff	silicified	629	0.32	4.1	181	3.8	14	203	73	311
152.3	160.0	7.8	fspar phyric andesite	silicified	640	0.21	3.3	98	4.3	2	82	6	87



IF-05-01 151.7m Silicified, crackle brx'd andesite



IF-05-02 66.3m Siliceous hydrothermal breccia

# MAIN COPPER ZONE

At the Main Copper zone, mineralization is associated with potassic altered monzonitic porphyries which intrude quartz-chlorite-magnetite altered volcanics. Petrographic examination indicates chlorite is likely after secondary biotite. Copper mineralization is hosted by homfelsed volcanics and stockworked monzonite porphyry which may be sourced by a partially exposed, well mineralized porphyry phase observed only at a few localities. Average Cu and Au values from 55 variably leached and oxidized rock ohip samples from 2003 and 2004 sampling, collected over a 1,000 m × 700 m area are 0.37% and 0.5 g/t respectively. Strong copper-gold soil and rock geochemistry is coincident with large positive magnetic feature over a rougbly 1000 x 1000 meter area, and limited IP surveying suggests an envelope of moderate chargeability.

The pyrite to chalcopyrite ratio is low and phyllic alteration is absent, hence the rocks do not exhibit the goesanous, limonitic weathering typical of pyrite-rich, phyllic and silicic alteration elsewhere on the property, notable the Sulphurets, Iron Cap, and Kerr deposits. A few drill holes completed by previous operators at the eastern and western periphery of the Main Copper zone intersected extensive porphyry style propylitic alteration with stockwork and disseminated mineralization. Composite assays include 0.2% Cu, 0.5 g/t Au over 207 meters, and 0.3% Cu and 0.3 g/t Au over 107.6 meters.

Drilling in 2005 focused in areas of highest geochemistry, potassic alteration, and strong magnetics. Three holes totaling 956.5 matree were completed; a fourth was abandoned at 25.7 metres due to hole conditions. Long intervals of low grade copper-gold mineralization were intersected in each hole, including 0.33% Cu, 0.32 g/t Au over 70 metres in hole MC-05-01, 0.24% Cu, 0.17 g/t Au over 234 metres in hole MC-05-02, 0.17% Cu, 0.30 g/t Au ond 0.16% Cu, 0.58 g/t Au over 25.7 metres In hole MC-05+03.

Mineralization occurs as fine grained chalcopyrite, best developed in siliceous, hornfelsed andesites and transitional contact breccias of monzonite porphyry. Magnetite is commonly associated with chalcopyrite. There is a weak stockwork of millimeter scale quartz veins in the andesites and contact areas of the monzonite. Coarser chalcopyrite is often developed at vein and fracture intersects. There is a late set of ragged calcite veinlets which is likely related to regional deformation, however it may in part be a component of a propylitic assemblage that includes chlorite and epidote. Chalcopyrite is occasionally remobilized and reprecipitated in calcite veinlets.

Minor native Cu and chalcocite were observed from 170.45 to 171.45 metres in hole MC-05-02 beneath an incompletely oxidized horizon with malachite on weathered fractures. This is probably a thin, supergene enriched horizon developed during an earlier period of aridity and lower water tables.

Away from the contact areas, monzonite porphyry is poorly veined and mineralized, indicating it could be a later, non-mineralising phase. Mineralisation may be sourced from a deeper intrusion, from which fluids ascended along fracture systems preferentially developed in the brittle, brecciated contact areas between the hornfels and monzonite porphyry. Exposuroe of densely stockworked pnrphyry mapped along the western edge of the Main Copper zone may be sourced from such an intrusion.

MC-05-03 intersected the Sulphurets zone beneath the Sulphurets fault at 227m. Here, the alteration is dominantly phyllic, and higher gold grades are accompanied by higher

arsenic, antimony, lead and zinc concentrations, indicative of a shallower epithermal environment or high sulphidation overprint. The fault zone is marked by a zone of clayey gouge and strongly foliated, schistose, mylonitic rock with a lapilli tuff like texture. A similar zone observed in hole IF-05-02 is likely also the same fault.

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
2.6	41.0	38.4	monzonite brx	propylitic	1703	0.28	1.7	49	4.8	22	18	2	76
41.0	121.3	80.3	andesite	propylitic	916	0.08	0.2	17	4.8	7	17	2	48
121.3	130.3	9.0	porphyritic granodiorite, magnetic		439	0.02	0.1	6	2.7	9	12	2	20
130.3	174.3	44.1	andesite	propylitic	3835	0.37	1.1	38	5.0	4	38	86	89
174.3	178.2	3.9	fspar porphyry/ andesite brx	propylitic	990	0.10	0.2	15	3.9	1	38	7	40
178.2	201.6	23.4	andesite	propylitic	2355	0.24	0.8	21	4.7	3	39	7	55
201.6	247.3	45.7	fspar porphyry/ andesite brx	propylitic	1017	0.10	0.4	9	3.8	7	15	2	36
247.3	267.0	19.8	porphyritic granodiorite	propylitic	262	0.03	0.2	8	2.8	29	11	2	29
267.0	344.4	77.4	fspar porphyry/ andesite brx	propylitic	970	0.15	0.5	5	3.7	9	13	2	29

Hole MC-05-01 composited values of selected metals for major unit intervals:

#### Hole MC-05-02 composited values of selected metals for major unit intervals:

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm
6.0	11.3	5.3	andesite	propylitic	1355	0.22	0.6	5	5.1	23	4	2	20
11.3	48.0	36.7	andesite tuffs	silicified, prop'c	2657	0.21	1.1	3	5.1	65	8	2	23
48.0	63.8	15.8	andesite, andesite brx	propylitic	2173	0.17	1.0	10	8.3	43	18	2	42
63.8	84.7	20.9	andesite tuffs	potassic?	2013	0.23	1.1	28	8.9	108	22	2	44
84.7	119.0	34.3	andesite tuffs	potassic-phyllic	2188	0.12	1.1	9	6.8	77	21	2	43
119.0	240.6	121.6	andesite	propylitic	2476	0.16	1.7	34	5.0	30	18	6	43
240.6	261.4	20.8	porphyritic monzonite brx	silicified	410	0.04	1.0	18	2.4	6	15	2	22
261.4	359.4	98.0	porphyritic monzonite	potassic?	228	0.12	0.3	30	3.4	13	13	2	23

#### Hole MC-05-03 composited values of selected metals for major unit intervals:

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn
m	m	m			ppm	g/t_	ppm	ppm	%	ppm	ppm	ppm	ppm
2.6	21.9	19.3	monzonite/andesite brx		1225	0.11	0. <del>9</del>	22	4.6	4	35	3	41
21.9	50.3	28.4	porphyritic monzonit <del>e</del>	propylitic	172	0.04	0.2	16	1.9	8	21	2	22
50.3	82.9	32.6	andesite/monzonite brx	silicification, prop'c	468	0.09	0.6	25	4.0	6	38	9	40
82.9	95.7	12.8	porphyritic monzonite	propylitic	164	0.03	0.1	15	2.6	12	15	2	24
95.7	156.2	60.6	andesite/monzonite brx	silicification, prop'c	1391	0.42	0.9	22	3.9	15	29	4	39
156.2	164.3	8.1	fault zone		1351	0.08	0.9	22	3.5	34	21	4	29
164.3	165.8	1.6	porphyritic monzonite		4045	0.66	2.3	15	4.8	33	14	2	47
165.8	176.7	10.9	andesite brx	silicification, prop'c	2676	0.30	1.6	14	4.2	29	18	2	41
176.7	178.0	1.3	porphyritic monzonite		1460	0.09	0.8	15	4.0	29	16	2	36
178.0	226.8	<b>48.</b> 9	andesite	silicification, prop'c	1934	0.17	1.0	21	5.3	46	22	2	45
226.8	227.0	0.2	fault zone		881	0.17	1.0	35	3.9	24	24	2	53
227.0	252.7	25.7	felsic tuff	phyllic	1593	0.58	1.8	81	3.7	20	103	227	303

#### Hole MC-05-04 composited values of selected metals for major unit intervals:

From	То	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Мо	Pb	Sb	Zn
m	m	m			ppm	g/t	ppm	ppm .	%	ppm	ppm	ppm	ppm
3.4	25.7	22.3	monzonite/andesite	silicified, prop'c	2127	0.13	1.7	30	4.8	63	38	2	53

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MC-05-01 176.6m Altered volcanic clasts in monzonite brx



MC-05-02 321m Monzonite porphyry with veins



MC-05-03 166m Brecciated, mineralized andesite

MC-05-03 245.8m Phyllic altered hydrothermal breccia beneath Sulphurets fault

# **MACQUILLAN ZONE**

The Macquillan zone occurs on the mostly forested slope north of the Sulphurets glacier, and southeast of the Sulphurets deposit. The zone was identified and sampled by previous operators however no drilling had been conducted here prior to 2005. Widely distributed, disseminated and veinlet chalcopyrite and pyrite are associated with altered feldspar phyric intrusive dykes. Mineralization occurs in both the intrusive and surrounding hornfelsed sediments. The intrusive is strongly quartz-sericite altered, with a variable stockwork of thin quartz veinlets, and is typically intensely weathered and partially leached. The sediments have been pervesively silicified and form massive, prominent, rusty purple weathering outcrops. Local, thin limestone beds have been marbleized. Skarn mineral assemblages including calcite, epidote and minor diopside with disseminated and ragged veinlets of pyrite, pyrrhotite, chalcopyrite, and molybdenite have been ebserved in scattered patchy zones within a larger area of siliceous, pyritic hornfels ruear the intrusive.

Previous sampling by Noranda from intermittent exposures over a roughly 400 by 1200 meter area returned numerous values over 0.2% Cu and 0.2 g/t Au averaging 0.29% Cu, and 0.23 g/t Au from 10 partially leached samples. A chip sample of the weethered porphyry contained 0.47% Cu and 0.30g/t Au. Surrounding altered sediments contain up to 0.30% Cu and 0.66g/t Au. A single line of induced polarization (L10) approximately100 to 150 metres upslope of the steep cliff exposures was surveyed in 2004. A strong, coincident high chargeability and low resistivity anomaly correlates with the rock geochem anomaly and suggests a potentially large volume of mineralisation. The geophysical anomaly is open to the west as topography prevented additional surveying.

Hole MQ-05-01 was collared between the IP anomaly and the cliff exposure, and oriented perpendicular to the interpreted trend of mineralization. Weak copper and gold assays stem from widespread, fine disseminated chalcopyrite associated with strong silica flooding, stockwork veining, and hydrothermal breccias. Host rocks are finely porphyritic, massive diorite or andesitic intrusive. Disseminated and veinlet pyrite content ranges from a few up to ten percent and increases with intensity of silicification. High arsenlc values are due to fine arsenopyrite. There is a late set of ragged calcite veinlets which is likely related to regional deformation.

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From	To	Leng.	Lithology	Alteration	Cu	Au	Ag	As	Fe	Mo	Pb	Sb	Zn				
m	m	m			ppm	g/t	ppm	ppm	%	ppm	ppm	ppm	ppm				
7.0	9.0	2.0	diorite		51	0.02	0.1	10	4.2	1	24	2	67				
9.0	31.2	22.2	hydrothermal silica brx	Silicification	2318	0.14	1.9	95	3.7	8	28	6	89				
31.2	64.2	33.0	porphyritic diorite	Wk propylitic	362	0.03	0.6	70	4.2	2	28	8	71				
64.2	67.9	3.7	hydrothermal silica brx	Silicification	1653	0.13	2.6	88	2.9	15	10	6	50				
67.9	91.7	23.8	porphyritic diorite	Silicification	845	0.11	1.3	312	3.0	8	10	4	36				
91.7	93.6	1.9	hydrothermal silica brx	Silicification	450	0.22	1.3	11 <b>49</b>	2.3	12	8	36	32				
93.6	251.5	157.9	andesite	Silicification	2086	0.20	2.2	233	4.1	12	20	12	63				

#### Hole MQ-05-01 composited values of selected metals for major unit intervals:



MQ-05-01 64.8m Int. silicified, brecciated rock



MQ-05-01 241.5m Silicified, veined diorite or andesite

# CONCLUSIONS AND RECOMMENDATIONS

Low grade copper and gold mineralization is widespread throughout the property and was intersected in at least parts of every drill hole. However, given the area's challenging logistics, none of the intervals are considered to be of economic significance at the current time.

the mineralisation has its genesis in Late Jurassic porphyry intrusions and the large, coalescing hydrothermal alteration cells which they produced. At the North Mitchell and Main Copper areas, fine disseminated and veinlet chalcopyrite occurs mostly within the transitional and brecciated contact areas between the host andesitic volcanics (Triassic Stuhini Group) and monzonitic to granitic porphyry intrusions with dipping dyke or sill like geometries. In both areas, low intensity k-feldspar flooding occurs within and haloes around guartz veins and aplitic to porphyritic dykes, however propylitic alteration is more widespread. Phyllic alteration is weak to absent in these areas. Grades are lower in the porphyry than in the andesites and breccias developed at the contacts, and the possibility that the main source of hydrothermal fluids and metals lies in is a deeper intrusive phase remains. In this scenario, fluids ascend along fracture networks preferentially developed in the brittle, brecciated transitions! contact areas between the hornfelsed andesites and porphyry intrusions. However, there are no strong indicators that higher grades than encountered in this year's drilling occur elsewhere at either Main Copper or North Mitchell within similar depths.

At the Iron Cap zone, an intense phyllic overprint strengthens eastward and is characterized by abundant pyrite, deformed quartz stockwork veining, and schistosity. Copper mineralization is very fine grained and almost invisible in hand specimen; occasionally there are a few millimeter scale chalcepyrite clots in breccies, intersections of veinlets, and late calcite veinlets. Decimeter scale, polymetallic quartz-sulphide veins are more abundant towards the east side of Iron Cap. The anomalous concentrations of silver, arsenic, antimony, lead and zinc may be indicative of a shallow or epithermal high sulphidation overprint. However, no enhancement of copper grades has occurred, and no enargite has been identified. Tetrahedrite and tennantite have been identified and are the arsenic and antimony carrying minerals. At the west side of Iron Cap, the intensity of the phyllic overprint weakens and precursor propylitic assemblages are observed. Weak k-feldspar flooding Ih veina and vein haloes is associated with slightly elevated copper and gold grades at the bottom of hole IC-05-04. This may indicate a zonation towards stronger potassic alteration and higher copper and gold concentrations, and should be considered for further exploration.

The single hole in the West Mitchell zone collared in schistose, phyllic altered rocks, and terminated in strongly stockworked, potassic altered andesite or fine grained intrusive. This hole also may indicate a zonation towards stronger potassic alteration and mineralization, and should be considered for futher exploration.

The Icefields zone is considered the east-northwest continuation of the Sulphurets deposit. The style of alteration and mineralization is similar to siliceous hydrothermal breccias observed at the Breccia zone of the Sulphurets deposit. Here copper to dold ratios are much lower than other occurrences at Kerr-Sulphurets. It is also characterized by higher arsenic, antimony, lead and zinc concentrations. The controls are not well established, however an east-northeast projecting structural corridor could indicate continuity with the Snowfields zone, a further 1,700 metres on the adjacent Bruceside property.

At the Macquillan zone, strong silicification related to stockwork veining and hydrothermal breccias hosts low grade copper and gold with arsenopyrite and suggests a deeper, higher temperature environment peripheral to a porphyry copper-gold setting. Similar styles have been reported in occurrences on the adjacent Bruceside property. Consideration should be given to further testing in the opposite direction, west of this area towards and topographically underneath the Sulphurets deposit area.

The "half-empty" assessment of the prospectivity of this property would consider that this year's drill program has largely corroborated the suggestion that the widely diffuselyzoned alteration and scattered mineralization at Kerr-Sulphurets are due to partial or complete dispersal of a potassic-Cu-Au core zone of a world class sized porphyry system, and no large, intact zone of sufficient grade was produced or remains. However, indications of increasing potassic alteration and Cu-Au mineralization in several drill holes may support a "half-full" assessment. In order to assist in establishing alteration zoning vectors towarde potentially economic copper and gold concentrations and confirming the suggestions presented above, petrographic examination of selected drill core samples should be undertaken. Additional mapping or geophysical surveys should be considered over any areas or targets where drill testing may be warranted.



Figure 1. Geology plan with drill hole location



Figure 2. Kerr-Sulphurets long section, view to northwest. Copper assays.



Figure 3. Kerr-Sulphurets long section, view to northwest. Gold assays.























