

822993

## CONCLUSIONS:

Based on diamond drill core assays and geological descriptions, copper mineralization on the KENA 18, 20, and 22 M.C.'s favours andesite, rhyolite tuff, and schist (probably chloritic type) rocks. The highest assay grade over a 3-metre section is 0.5% copper. Within the 0.1% to 0.5% Cu grades, 64% of the core lies between <sup>the</sup> 0.1-0.2% Cu range, 28% between the 0.2 to 0.3% Cu range, 5% between <sup>the</sup> 0.3-0.4% Cu range, and 2% between the 0.4 to 0.5% Cu range.

The higher copper mineralization, 0.2 to 0.5% Cu grades, occur in andesites or andesite rocks which show epidote and/or chlorite alteration with silicification, and sometimes calcareous. Pyrite is generally associated with chalcoppyrite, grade not more than 2% and is more widespread in all rocks.



GRADE CATEGORY % Cu	ROCKS	LENGTH <sup>m</sup> OF D.D. CORE	% WITHIN GRADE CATEGORY	FEATURES ASSOCIATED WITH COPPER MINERALIZATION
0.30 → 0.40 %		9.0 <sup>m</sup> (5% of 190 <sup>m</sup> )		
	schistose ANDESITE ⑧	3.0 <sup>m</sup>	33.34 % as ⑧	
	ANDESITE ⑨	3.0	33.33 as ⑨	
	RHYOLITIC ⑪	3.0	33.33 as ⑪	
0.40 → 0.51 %		3.0 <sup>m</sup> (2% of 190 <sup>m</sup> )		
	ANDESITE ⑦	3.0	50 % as ⑦	
	RHYOLITIC ⑫	3.0	50 as ⑫	
GRAND TOTALS		193.0 <sup>m</sup>	(100%)	

ROCK TYPE AND COMMON FEATURES :

ROCK TYPE	DRILL CORE IN COPPER MIN. ≥ 0.10 % Cu (193 <sup>m</sup> )		COMMON FEATURES
	LENGTH (m)	% of 193 <sup>m</sup> length	
ANDESITE	44.6 <sup>m</sup>	23.11 %	Epidotized or weak epidote alth. or epidote in fract. Qtz-epid-py veinlets; py and/or epid. in fract, ± cpy, ± chl
RHYODACITE TUFF	30.0	15.54	weak to strong foliation, mod. calcareous, qtz + hematite veinlets, add spot epidote, limonite fract. Cpy - scattered grains + veinlets, also in fract.
CHLORITE SCHIST	28.0	14.51	well laminated or banded, local silica, ± frag-mental bands, and/or schistosity py - veinlets, and/or schistosity
ANDESITE (Myolitic?)	18.4	9.53	cpy - add veinlet + dissem. weakly silicified banding, local chl. alth. py - veinlets, scattered cpy - minor
SCHISTOSE ANDESITE ± CHL. SCH	14.6	7.56	schistose, chloritic, locally silicified py + cpy veinlets, py veinlets, local dissem. irreg. qtz-calc veinlets
ANDESITE	13.0	6.74	chl + reg. alth - weak to mod. py - in qtz-carb. bands cpy - in py veinlets, in qtz-carb veinlets
RHYOLITIC	9.0	4.66	sericite alth. sil. py - dissem + veinlets cpy - as veinlets, ± dissem.
ANDESITIC to RHYOLITIC FRAGMENTALS	8.7	4.51	chl. alth, poor schistosity, locally sil., irreg. qtz veinlets py - dissem. cpy - in veinlets, minor
CHLORITE-SERICITE SCHIST	6.2	3.21	calcareous py - dissem, minor
RHYOLITE or DACITE	5.2	2.69	sericitic, non-calcareous, f.g., 1-grey or white py - 2% , coarse dissem.
SERICITE SCHIST	5.0	2.59	calcareous, silicified - strong/weak py - in fract.
RHYOLITIC	4.3	2.23	siliceous, 1-grey to white. Py - hairline fract + veinlets
RHYOLITE	3.0	1.55	sericitic throughout, calcareous in part, f.g. to schistose. chl - in hairline fract + in schistose sections. py - 2% ±, dissem + in fract. cpy - in fract.
RHYOLITIC	3.0 <sup>m</sup>	1.55 %	Just either a breccia or agglomerate + f.g. flows ± chl. sch; qtz veins. partially silicified.

Based on 3 Drill Holes, totalling 635.2 metres in length.

Accumulated Length of Drill Core With Values  $\geq 0.10\%$  Cu - Total 193<sup>m</sup>

Jan. 21/82 J. [unclear]

## COPPER CONTENT VS ROCK TYPE &amp; ASSOCIATED FEATURES:

GRADE CATEGORY % Cu	ROCKS	LENGTH <sup>m</sup> of D.D. CORE	% WITHIN GRADE CATEGORY	FEATURES ASSOCIATED WITH COPPER MINERALIZATION
0.10 → 0.20 %		124.0 <sup>m</sup>	(64% of 193 <sup>m</sup> )	
	RHYODACITE TUFF <sup>(10)</sup>	27.0 <sup>m</sup>	21.77 % (of 124 <sup>m</sup> )	weak → strong foliation, mod. calcareous, gtz + hercynite veinlets cpy = scattered grains + veinlets, also in fractures py = ? / minor epidote = 1 add spot
	ANDESITE <sup>(1)</sup>	24.0	19.35	Minor carbonate, epidote in fract, also py in fract vuggy gtz vein but mass. py. ± chl, ± epid/chl alt'n, ± cpy
	ANDESITE <sup>(2)</sup> (hyalitic?)	16.4	13.23	weakly silicified banding, local chl. alt'n, py veinlets, scattered cpy - minor
	ANDESITE <sup>(3)</sup>	13.1	10.56	Epidotized and/or weak epid. alt'n, schistose in part ab-epid-py veinlets, epid in fract, minor py-cpy
	CHLORITE SCHIST	7.5	6.05	well laminated, minor silic. ± py veinlets // schistosity cpy - minor
	RHYOLITE or DACITE	5.2	4.19	gray, white, f.g. sericitic, non-calcareous py = 2%, coarse, dissem.
	schistose ANDESITE ± CHL SCH <sup>(8)</sup>	5.6	4.52	chloritic, calcareous, locally silicified py-cpy veinlets, py veinlets, local dissem, irreg. gtz-calc veinlets
	CHLORITE-SER SCHIST <sup>(12)</sup>	5.1	4.11	calcareous py - dissem, minor
	SERICITE SCHIST	5.0	4.03	calcareous, silicified - strong / local py - in fract.
	RHYOLITIC <sup>(4)</sup>	4.3	3.47	gray, siliceous py - hairline fract + veinlets
	ANDESITIC to RHYOLITIC FRAGMENTALS <sup>(9)</sup>	3.8	3.06	chl. alt'n poor schistosity, locally sil., irreg. gtz-veinlets py - dissem cpy - minor in veinlets
	RHYOLITIC <sup>(5)</sup>	3.0	2.42	incl. either a breccia or agglomerate, f.g. flows, partially silicified incl. chl sch, gtz veins.
	RHYOLITE <sup>(6)</sup>	3.0	2.42	f.g. to schistose calcareous in part, sericitic throughout, ± in schistose sections. chl. in hairline fract, ± in schistose sections. py = 2%, dissem + in fract. Cpy - in fract.
	ANDESITE <sup>(7)</sup>	1.0 <sup>m</sup>	0.81 %	gray, weak to mod. chl + seric alt'n. py - in gtz-carb. bands cpy = w/ py veinlets + gtz-carb veinlets
0.20 → 0.30 %		54.0 <sup>m</sup>	(28% of 193 <sup>m</sup> )	
	SCHIST	20.5 <sup>m</sup>	37.96 %	chl. + carbonaceous bands, local silic / fragmental bands, py = f.g. along foliations + veinlets cpy = odd veinlet + dissem.
	ANDESITE <sup>(1)</sup>	7.5	13.89	as (1) above.
	ANDESITE <sup>(7)</sup>	6.0	11.11	as (7) above
	schistose ANDESITE ± CHL SCH <sup>(8)</sup>	6.0	11.11	as (8) above
	ANDESITIC to RHYOLITIC FRAGMENTALS <sup>(9)</sup>	4.9	9.07	as (9) above
	RHYODACITE TUFF <sup>(10)</sup>	3.0	5.56	as (10) above
	RHYOLITIC <sup>(4)</sup>	3.0	5.56	sericite alt'n, sil. py - dissem + veinlets cpy - as veinlets + dissem.
	ANDESITE <sup>(6)</sup> (hyalitic)	2.0	3.70	as (2) above
	CHL-SER SCH <sup>(12)</sup>	1.1	2.04	as (12) "

0.10 → 0.20 % Cu.

RHYOLITIC (1)  
ser. alt'n, sil, py-dissom + veinlets  
cpy in veinlets ± dissem.

ANDESITE (2)  
grey, weak to mod calciferous  
py in gfs-comb bands  
cpy of py veinlets + gfs-comb veinlets

SATUR ANDESITE (3) / I Ch / SCH  
dk grey, siliceous, calcareous  
py-cpy veinlets, py veinlets  
mag. gfs-calc veinlets.  
local silicified  
local py dissem.

RHYOLITIC (4)  
incl. either a breccia or agglomerate  
fg. flows, partially silicified  
incl chalc, gfs veins,

1.0 m ✓

5.6 m ✓

3.0 m ✓

12 ✓

0.20 → 0.30 % Cu

RHYOLITIC (20%)

ANDESITE (2)

SCHISTOSE ANDESITE (3)

3.0 m ✓

3.0 m  
3.0

6.0 m ✓

6.0

8 ✓

11 ✓

0.30 → 0.4 % Cu

RHYOLITIC (20%)

AND (2)

SCHISTOSE ANDESITE (3)

3.0 m ✓

3.0 m ✓

3.0 m ✓

0.40 → 0.50 % Cu

RHYOLITIC (20%)

ANDESITE (2)

SCHISTOSE ANDESITE (3)

3.0 m ✓

3.0 ✓

> 0.50 % Cu (0.506%)

RHYOLITIC (1)  
ser. alt'n, sil, py-dissom + veinlets  
cpy in veinlets ± dissem.

3.0 m ✓

ANDRETTIC & RHYOLITIC FRAGMENTALS (9)	CHL SCHIST (10)	RHYOLITE or DACITE (11)	ANDRETTIC (dyalitic?) (12)	ANDRETTIC (14)
chl. alt'n poor schistosity dissem py minor cpy	well laminated. ± py veinlets/rch. minor cpy " silic.	i-grey, white, fq. sericitic non-calcic coarsely dissem pt. 1-2%	weakly silicified bankg. scattered py veinlets, minor cpy local ch'd. alt'n.	Epitax on fract vegg plz + cpy / mass py minor carbonates alt'n py on fract ± chl ± Epi/ch/alt'n ± cpy
3.8"	2.5" 5.0"	5.2"	13.4" 3.0	3.0" 6.0 3.0 12.0
3.8 17 75+6	7.5 7	5.2 9	16.4 4	24.0 2

ANDRETTIC (12)	SCHIST (13)	ANDRETTIC (14)
	chl + carbonaceous bankg fine py along foliation + veinlets local silic of frag. bankg odd cpy veinlet dolomite	
2.0"	2.7" 17.8	1.5" 3.0 3.0
2.0 ✓	20.5 3 ✓	7.5 6 ✓

RHYOLITIC (15)

Grey, siliceous  
Py - hairline + veinlets

4.3 m

4.3 ✓

78/6

ANDALUSITE (16)

f. to med. gr.  
schistose in part  
locally silicified  
weak epid. all in  
qtz veinlets  
epid in fract

minor Cpp, minor Py

5.2 m

5.2 ✓

10

SERIC SCH (17)

calcareous  
silicified - strong weak  
Py in fract.

5.0 m

5.0 ✓

14  
14

RHYOLITIC TUFF (18)

grey, f.g. weak-strong foliation  
qtz + hematite veinlets  
mod. calcareous  
cpy - small, grains + veinlets,  
- fract.  
Py - ? odd Epid.

27.0 m

27.0 ✓

1

ANDALUSITE (19)

epidolized.  
py-epid-py veinlets

7.9 m

7.9 ✓

5

0.2 → 0.30%

RHYOLITIC TUFF (18)

3.0 m

3.0 ✓

0.10 → 0.20% Cu

RYODUKITE 6

f.g. & schistose, seric throughout,  
chl in parting fr q in sch. part.  
calcareous in part,  
+2% py - dissem. in front, minor  
cpy in front.

3.0 m ✓

ANDERSITE (5)

of schistose sections, chl in part.  
+ rhythmic fragmental sch.  
py as dissem. on schistosity.

CHL-SER SCH (9)

5.1 m

13 ✓

ANDERSITE & RYODUKITE (7)

FRAGMENTALS

locally sil. irreg qtz-veinlets  
cpy in veinlets

3.0 m

1.9 m

4.9 m ✓

14  
15

CHL-SER SCH (8)

calcareous,  
minor dissem. py

1.1 m ✓

\*K-81-4 ~ 228.0

-5 ~ 255.4

-6 ~ 151.8

TOTAL 635.2 m