

**YEIP  
04-032  
2004**

**Yukon Mining Incentives Program  
Final Report-Focused Regional**

**AAFLU**

**Bernie Kreft**

**September 2, 2004**

YmIP 04-032

Project Location – The AAFLU target area is located in the Mayo Mining District on NTS mapsheets 106-D-13/16 and 116-A-15/16. The approximate centre of AAFLU is at UTM 451000E and 7178000N.

Access – Access to the target area was by helicopter.

Exploration Target – AAFLU was a reconnaissance program designed to evaluate the Olympic Dam type Cu-Co-Au potential of Proterozoic stratigraphy in the vicinity of several anomalous silt and rock sample sites discovered during a 2003 focused regional project (Kreft, YMIP-2003, FLU and AAB2). Proterozoic stratigraphy consists of a varied sequence of green to grey phyllite, quartzite, shale and dolomite. Intrusive to these rocks is a series of diorite dykes and plugs.

Work during 2003 consisted of silt sampling and limited rock sampling, which identified three main areas distinguished by anomalous copper geochemistry within silt and rock samples.

Work during 2004 consisted predominantly of prospecting, along with a limited amount of silt sampling.

**Fleming Lake Unconformity East Map (FLUE)** – Work in this area was designed to follow up on a silt sample value of 224 ppm Cu (BFLUS-2), and three rock float samples with values of up to 5200 ppm Cu, 414 ppm Co and 207 ppb Au (BFLUR-1 to 3). Mineralization was found within diorite and weakly brecciated sediments, and is consistent with what would be expected at the fringes of an Olympic Dam type system.

Work at FLUE consisted of a detailed evaluation of the type and amount of mineralized float present in the vicinity of the original 3 float rock samples. This work located a minimal amount of copper mineralization within several qtz-carbonate veins, but did not note the presence of Olympic Dam type breccia material or specularite, therefore there is only very limited potential for an Olympic Dam type discovery here. A prospecting traverse was run along the ridge to the NW of the discovery area and no mineralization was noted. Follow-up prospecting work in the vicinity of the high silt sample located rare qtz-siderite veining. Although no copper mineralization was found within the veins, they have been noted to contain copper at numerous other sites.

**Fleming Lake Unconformity North/South Map (FLUNS)** – Work in this area was designed to follow up on a series (BFLUS-10, 12, 13 and PFLUS-13, 14, 15) of silt samples with values of up to 186 ppm Cu (BFLUS-10). Mineralization encountered during 2002 consisted of chalcopyrite mineralized qtz-carbonate veins, and hematite altered diorite and schistose shale, both with disseminated chalcopyrite. Mineralization appears to be consistent with what would be expected at the fringes of an Olympic Dam type system.

Prospecting at this site encountered several narrow qtz-carbonate-siderite veins with minor chalcopyrite. Much of the better mineralized material was found proximal to narrow diorite dykes and bodies. Nowhere was mineralization concentrated enough to form a viable target for follow-up.

**AA East Area (AAEA)** – Work in this area was designed to follow up on a silt sample value of 93 ppm Cu (BAAS-13), and a float rock sample of diorite (BAAR-31) with 182 ppm Cu and with

hematite on a fracture. The anomalous geochemistry and favourable geology is located close to the mapped location of an unconformity separating Paleozoic carbonates from the Proterozoic.

Work at this site consisted of prospecting the slopes on either side of the anomalous silt sample site. No mineralization was encountered during the traverses. The previous silt sample site with a value of 93 ppm Cu was re-sampled and returned 86 ppm Cu (BKAA04SL-2).

**Other Areas** – Due to the discouraging results encountered in the areas originally included in the application; and after consultation with the YMIP geologist, it was decided to expand the search to include other areas of interest.

**Arctos** – Work at Arctos was designed to evaluate the potential of a 3km x 4km area of Fairchild Group sediments and Wernecke Breccia. Work successfully located the breccia body, however it was found to be significantly more aerially extensive than previous mapping suggested. Specularite and minor chalcopyrite are ubiquitous within areas of brecciation and associated metasomatic alteration. A total of 9 silt samples and 5 rock samples were taken. All silt samples can be considered anomalous in copper (based on previous experience in the area), and occasionally anomalous in silver, cobalt, uranium, arsenic and gold. Follow-up is required to define a source for anomalous copper values of up to 428 ppm at silt samples BKAR04SL-7/9 on the north side of Arctos Ridge. Sampling on the south side of Arctos Ridge located several types of mineralized float and one showing (BKAR04R-5). A representative sample of the showing returned 3224 ppm Cu and 252 ppb Au, a silt sample taken immediately downstream from the showing returned a high value of 2269 ppm Cu and 140 ppb Au, suggesting more significant mineralization may be present than that which was sampled. All silt and float sample sites on the south side of Arctos Ridge require follow-up work to help define their source areas.

**Vulture** – Work at Vulture was designed to evaluate a 3km x 10km WNW trending section of Wernecke Breccia and Fairchild group sediments. Significant high-grade mineralization was encountered at the headwaters of stream BKAR04SL-11. This occurrence consists of brecciated sediments containing disseminated and fracture controlled mineralization with up to 30% chalcopyrite and an analysis (FA/ICP) of 3321 ppb Au. Zones are narrow but of obvious high-grade. More widespread, albeit lower grade, disseminated style chalcopyrite mineralization occurs within specularite mineralized breccia and diorite in the vicinity of silts BKAR04SL-17/18 (copper in silt to 629 ppm). Anomalous copper to 664 ppm at silt sample site BKAR04SL-13 may also be related to the mineralization located at site 17/18. This area is highly anomalous in both rock and silt, and represents a significant target worthy of follow-up. Some prospecting is required to define a source for anomalous silt values of up to 153 ppm Cu at site BKAR04SL-24. Some lower priority prospecting is required to follow-up the high-grade chalcopyrite-albite breccia at sample sites BKAR04R-6/9. No other sites worthy of follow-up were encountered

**Conclusions** – Prospecting of the original application sites did not locate any alteration, mineralization or brecciation as would be expected in a well developed Olympic Dam type setting. The presence of diorite bodies and associated qtz-carbonate-siderite veining occasionally mineralized with chalcopyrite, along with rare specularite (noted by previous workers at FLUNS and by the writer at AAFA) does suggest the proper environment is present, but the overall paucity of alteration and mineralization does not suggest a large mineralized target is present.

Preliminary prospecting at Arctos and Vulture located three high-priority areas requiring follow-up work: north and south sides of Arctos Ridge as well as the vicinity of Vulture silt sample sites BKAR04SL-13/17/18. The style and amount of mineralization encountered is very encouraging, and suggests further exploration successes can be readily had at these sites. Work, albeit of a lower priority, is also recommended to follow-up the high-grade chalcopyrite breccia located at BKAR04R-6/9 and the anomalous silt sample site BKAR04SL-24.

**Recommendations** – No further work is recommended for the original area at this time. Further prospecting and silt sampling, as described above, is required to better define anomalous areas at Arctos and Vulture.

**Budget:**

Truck (375km x \$0.48/km)	=	\$180.00
Wages B.Kreft (2 days x \$350/day)	=	\$700.00
Analytical (24 silt and 9 rocks)	=	\$504.55
Helicopter (4.3 hours)	=	\$4974.14
Food And Camp (2 man days x \$35/day)	=	\$70.00
Report Preparation	=	<u>\$1000.00</u>
TOTAL	=	\$7428.69

**Sample Descriptions**

- BKAR04R-1 = Classic Wernecke Breccia with low to moderate amounts of specularite
- BKAR04R-2 = Hematite altered siltstone cut by specularite veins, minor Cu along frac
- BKAR04R-3 = Heavily hematite altered quartzite mineralized with 0.1% fine disseminated chalcopyrite and low to moderate amounts of fine specularite
- BKAR04R-4 = Finely and weakly brecciated maroon siltstone with mottled and fracture controlled iron-carbonate alteration, trace diss chalco associated with the alteration
- BKAR04R-5 = Classic hematite altered and mineralized breccia with approximately 0.5% disseminated and fracture controlled chalcopyrite
- BKAR04R-6 = Massive chalcopyrite/pyrite pod
- BKAR04R-7 = Carbonate vein with chalcopyrite to 2%
- BKAR04R-8 = Weakly fractured and carbonate veined siltstone cut by several chalcopyrite specularite veins
- BKAR04R-9 = Siltstone breccia with about 20% chalcopyrite fracture fillings and minor amount disseminated within clasts

BKAR04SL-1 to 24 = Silt samples.

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHON  
To Kreft, Bernie

Acme file # A404592 Received: AUG 16 2004 \* 19 samples in this disk file.

Analysis: GROUP 1DX - 0.50 GM

AU\*\* GROUP 3B - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.

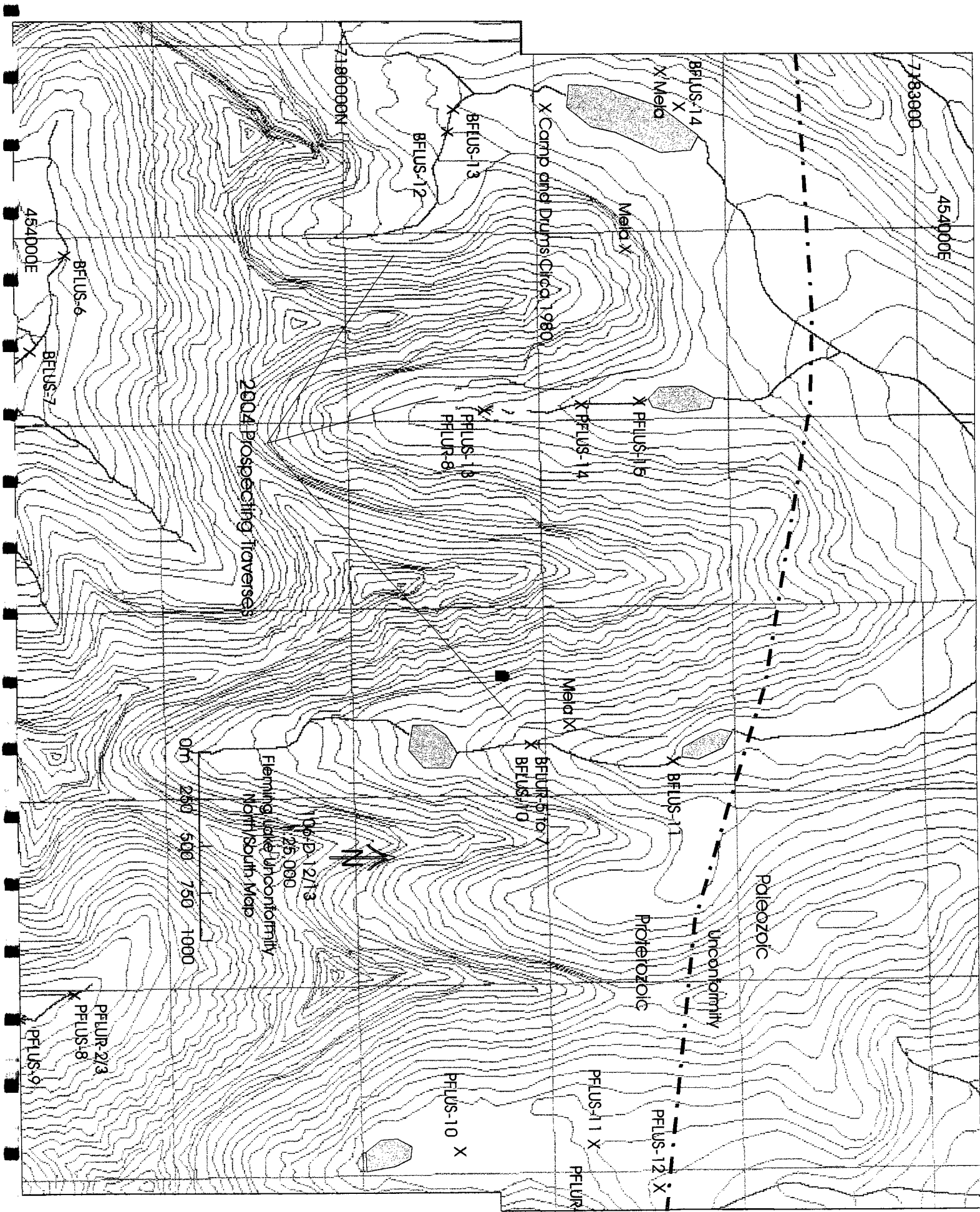
ELEMENT	Cu	Ag	Ni	Co	Fe	As	U	Th	La	Au**
SAMPLES	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppb
SI	0.2	<.1	0.1	<.1	0	<.5	<.1	<.1	<.1	2
BKAR04R-1	33	<.1	7.4	13.4	3	4.8	1.4	6.9	20	10
BKAR04R-2	730.3	<.1	53.7	111	5.6	9.4	3	2.7	26	2
BKAR04R-3	1638.4	0.1	2	5.2	1.8	2.4	6.5	21.3	7	4
BKAR04R-4	2892.8	0.1	8.4	60	3.8	15.1	9.3	10.3	9	17
BKAR04R-5	3224.4	0.2	3.1	33.7	4.2	9.3	19.4	8.8	3	252
BKAR04R-6	>10000	10.8	715	436	35	56.7	0.5	0.2	<.1	3323
BKAR04R-7	6432.1	0.5	59.2	8.4	2.5	0.5	1	10.5	3	60
BKAR04R-8	1471.6	0.1	33.3	9.5	2.8	3.1	1.9	19.3	17	30
BKAR04R-9	>10000	14.2	83.4	628	21	111	7.9	4.6	2	81
BKBR04R-1	4812.1	0.9	58.8	27.2	8.9	8	0.5	1.2	6	9
BKBR04R-2	2555	0.8	30.5	13.9	5.4	3.6	0.2	0.4	2	4
BKBZ04R-1	184.1	0.1	10.9	17.4	4.3	49	1.1	10.8	5	4
BKBZ04R-2	356.9	0.3	44.8	48.5	33	47.5	4.8	2	11	12
BKBZ04R-3	117.2	0.1	26.4	34.3	17	20.5	1.8	6.7	16	19
RE BKBZ04R-3	117.2	0.1	27.2	35	18	21	1.9	6.7	16	20
BKBZ04R-4	169.2	0.1	20.3	30.2	19	18.6	42.7	7.4	23	5
BKBZ04R-5	765.6	0.2	35	27.3	22	17	0.3	3.7	5	20
BKBZ04R-6	575.4	0.7	61.1	82.1	37	143	106	1	6	33
STANDARD DS:	147.9	0.3	24.9	11.6	2.9	18.5	6.3	2.4	12	495

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 To Kreft, Bernie

Acme file # A404593 Page 1 Received: AUG 16 2004 \* 44 samples in this disk file.

Analysis: GROUP 1DX - 15.0 GM

ELEMENT SAMPLES	Cu ppm	Co ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	La ppm	Sample gm	Total kg	SILT FROM AREA	
G-1	4.4	5	1.98	1.3	2	0.5	4.3	7	15	-		
BKAA04SL-1	60.5	23	3.85	14.2	2.2	1.9	5.8	21	15	1.53	AA	
BKAA04SL-2	86.3	22.2	4.16	14.6	3.9	5.7	6.9	19	15	1.28	AA	
BKAR04SL-1	113.8	45.2	4.26	83.4	3.8	9.2	8.1	33	15	1.76	Arctos S	
BKAR04SL-2	119	43.8	4.24	83.7	3.7	8	8.4	35	15	1.1	Arctos S	
BKAR04SL-3	88.8	29.8	3.27	19	3.1	6.6	8.9	33	15	2.1	Arctos S	
BKAR04SL-4	163.7	52	4.79	53.9	3.3	9.3	6.7	29	15	0.78	Arctos S	
BKAR04SL-5	2269.8	303.5	5.59	160.8	121.4	139.6	9.2	22	1	0.68	Arctos S	
BKAR04SL-6	299.4	38.9	4.15	55	5.4	39.2	6.4	27	7.5	1.75	Arctos S	
BKAR04SL-7	427.9	110.2	4.52	179.5	3.9	8.8	8	22	15	1.86	Arctos N	
BKAR04SL-8	247.8	65.6	4.92	111	5.2	12.3	10.8	31	15	1.32	Arctos N	
BKAR04SL-9	269.9	57.7	4.7	133.1	3.5	5.9	8.3	24	15	2.1	Arctos N	
BKAR04SL-10	127.5	28.4	4.13	39	3.2	3.8	7.6	15	15	2.05	Vulture	
BKAR04SL-11 N.S	-	-	-	-	-	-	-	-	-	-	1.5	Vulture
BKAR04SL-12	177.2	58.5	5.1	33.9	16.5	12.6	21.1	51	1	1.73	Vulture	
BKAR04SL-13	663.8	109.6	8.71	412.1	8.5	11.3	19	33	15	1.28	Vulture	
BKAR04SL-14	90.8	18.8	3.78	26.2	1.6	1.3	4.9	10	15	1.26	Vulture	
BKAR04SL-15	26.9	14.1	2.21	10	1.3	1.4	4.6	11	15	1.72	Vulture	
BKAR04SL-16	393.3	77.2	6.23	62.8	5.7	9.5	13.3	23	15	1.62	Vulture	
BKAR04SL-17	280.4	61	5.86	55.8	3.5	5.4	8.5	13	15	2.3	Vulture	
BKAR04SL-18	629.1	80.8	8.09	82.8	9.2	9.6	15.8	22	15	1.76	Vulture	
RE BKAR04SL-18	631.8	80.1	8.11	81	9	7.4	15.1	23	15	-	Vulture	
BKAR04SL-19	70.7	40.9	11	47.6	2	6.7	2.7	7	15	1.33	Vulture	
BKAR04SL-20	177.2	38.8	6.36	30.2	3.3	8.6	5.4	20	15	1.95	Vulture	
BKAR04SL-21	41.7	44.2	12.1	54	1.8	8.5	1.3	4	15	2.05	Vulture	
BKAR04SL-22	73.6	17.3	3.81	34.6	0.7	<.5	1.9	9	15	2.68	Vulture	
BKAR04SL-23	73.1	19.1	3.99	25.8	0.9	0.6	1.8	8	15	1.76	Vulture	
BKAR04SL-24	193	40.3	5.11	39.5	8.8	9.6	9.4	19	15	0.7	Vulture	
BKBRSL-1	57.8	24.2	2.56	18.2	6.5	<.5	15.9	36	15	0.85	Braine	
BKBRSL-2	58.2	23.3	2.78	20.7	7.5	<.5	22.2	32	15	1.45	Braine	
BKBRSL-3	87.5	27	3.22	22.9	4.5	0.7	18.1	22	15	1.95	Braine	
BKBRSL-4	110.2	43.5	3.66	27.8	7.2	<.5	19.7	24	15	1.73	Braine	
BKBRSL-5	144.5	34.6	4.56	53.1	4.2	2	13.6	25	7.5	1.61	Braine	
BKBRSL-6	97.2	25	3.96	25.1	4.4	1	14.2	26	15	2.31	Braine	
BKBRSL-7	125.4	27.7	2.93	29	3.9	0.6	14.1	25	15	2.01	Braine	
STANDARD DS5	144	12.1	3.02	18.2	6.6	42.9	2.9	13	15	-		
G-1	3	4.1	1.88	1	1.8	1	4.2	7	15	-		
BKBRSL-8	82.1	19.9	2.89	15.5	4.3	1.3	15.4	22	15	1.8	Braine	
BKBRSL-9	45	16.4	3.15	13.3	3.9	1	10.4	21	15	2.1	Braine	
BKBRSL-10	45.3	16.6	3.37	14	3.3	1.1	12	18	7.5	0.98	Braine	
BKBRSL-11	241.3	54.3	6.3	55.4	3.3	4.2	12.4	20	15	1.2	Braine	
BKBRSL-12	229.1	54.7	7.35	49.2	3.9	3.1	12.4	18	15	1.1	Braine	
BKBRSL-13	195.3	64.2	4.96	28.7	2.7	2.7	11.2	14	15	1.98	Braine	
BKBRSL-14	136	31.6	4.66	26.1	2	1.7	9.5	19	15	1.53	Braine	
STANDARD DS5	136.9	11.5	2.86	17.3	5.8	41.4	2.7	11	15	-		



7183000

454000E

BFUS-14

X Meia

X Camp and Duns Circa 1980

BFUS-13

BFUS-12

X PFLUR-15

X PFLUR-14

PFLUR-8

PFLUR-10

2004 Prospecting Traverses

BFUS-6

454000E

BFUS-7

0m 250 500 750 1000



1:25,000  
Fleming Lake Unconformity  
North/South Map

Paleozoic

Unconformity

Proterozoic

BFUS-11

Meia X  
BFUS-10

Meia X

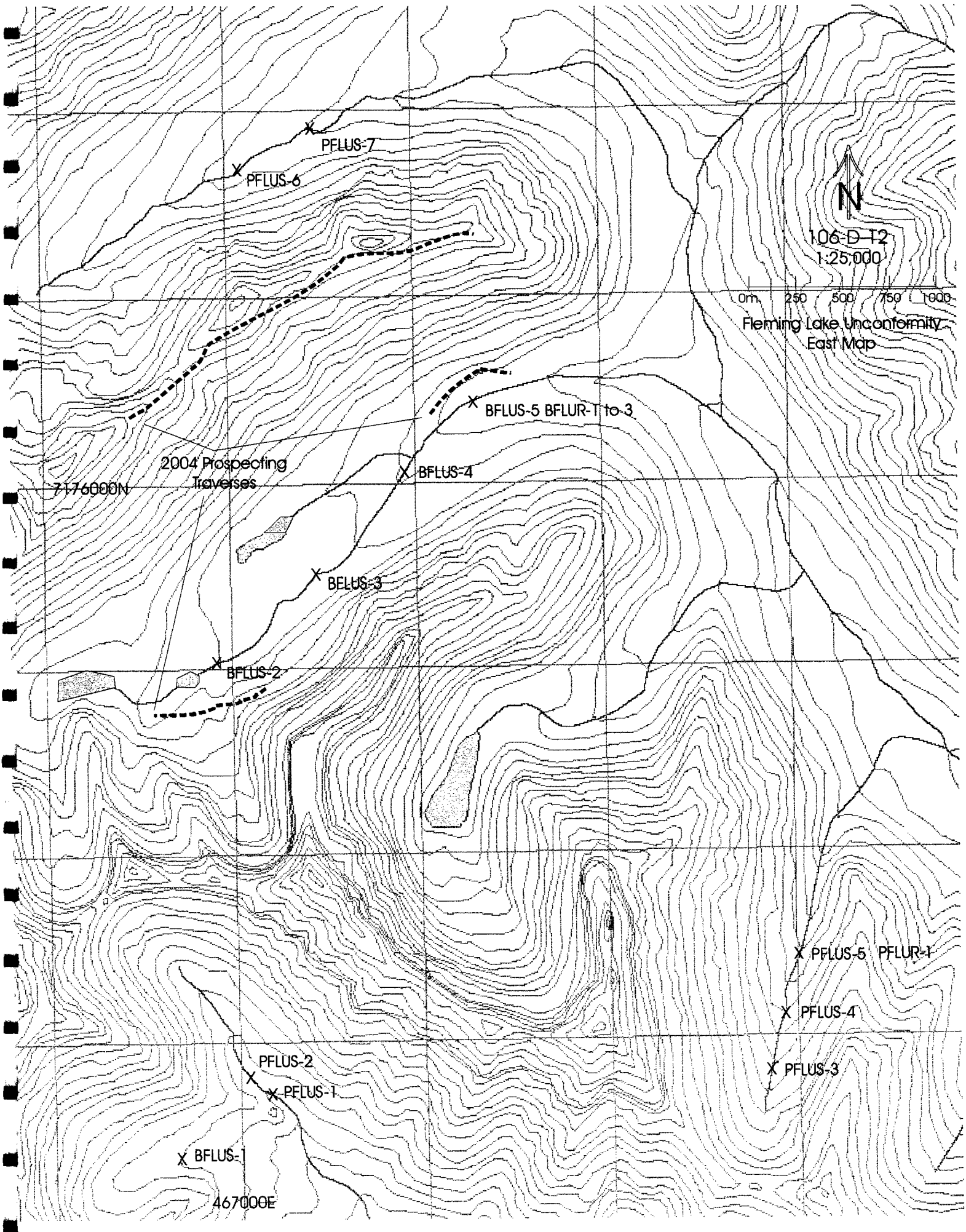
PFLUR-11 X

PFLUR-10 X

PFLUR-12 X

PFLUR-2/3

PFLUR-9



106-D-T2  
1:25,000

0m 250 500 750 1000

Fleming Lake Unconformity  
East Map

2004 Prospecting  
Traverses

7176000N

PFLUS-7

PFLUS-6

BFLUS-5 BFLUR-1 to 3

BFLUS-4

BELUS-3

BFLUS-2

PFLUS-5 PFLUR-1

PFLUS-4

PFLUS-2

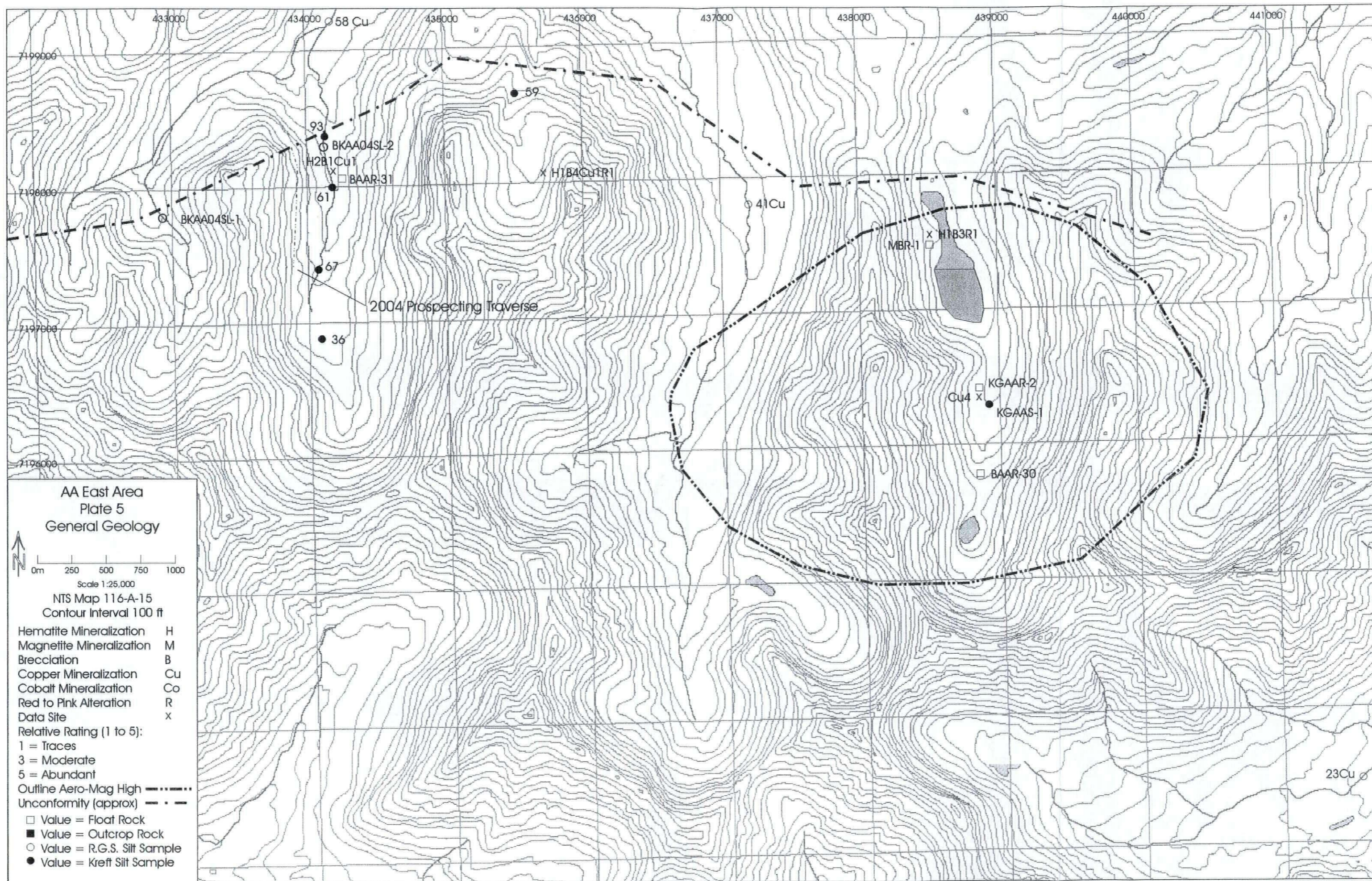
PFLUS-1

PFLUS-3

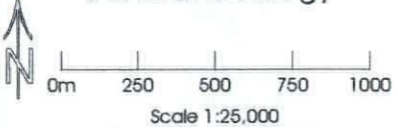
BFLUS-1

467000E





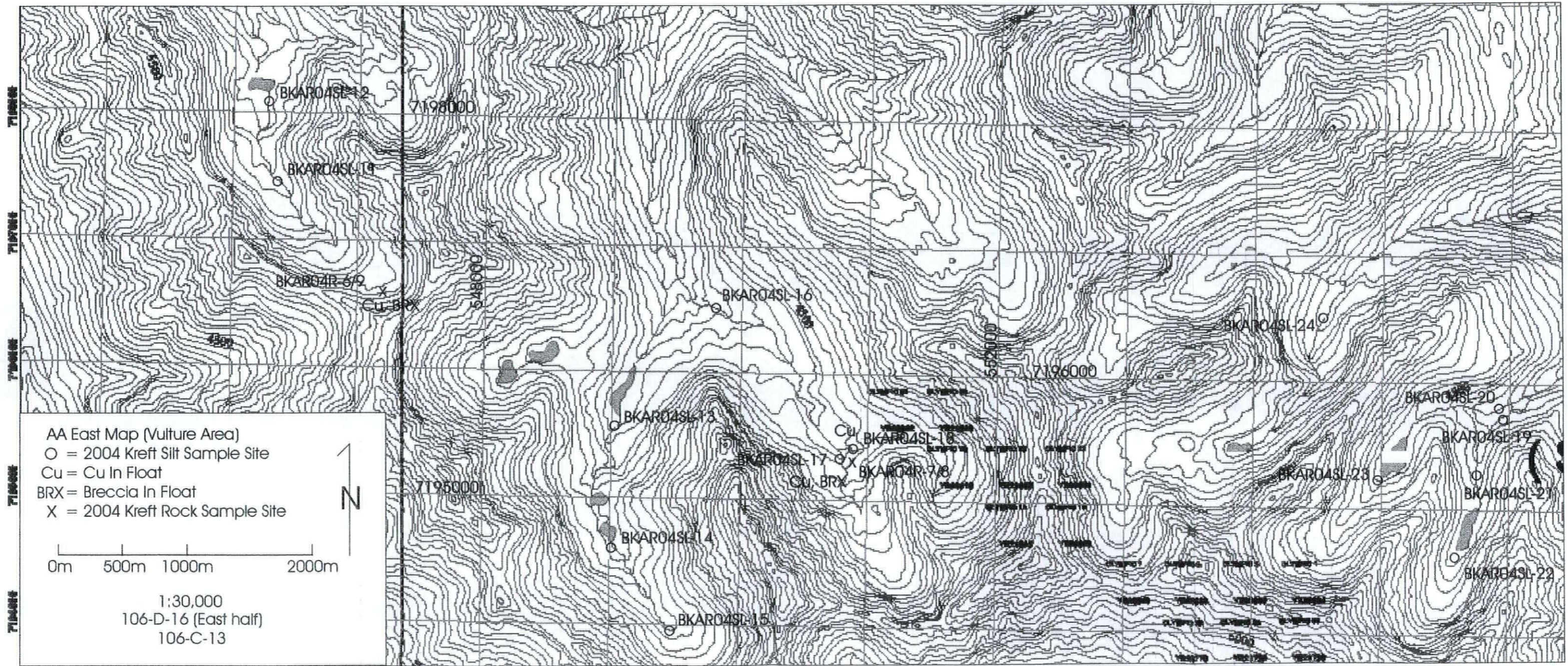
AA East Area  
Plate 5  
General Geology



NTS Map 116-A-15  
Contour Interval 100 ft

- Hematite Mineralization H
- Magnetite Mineralization M
- Brecciation B
- Copper Mineralization Cu
- Cobalt Mineralization Co
- Red to Pink Alteration R
- Data Site X
- Relative Rating (1 to 5):
- 1 = Traces
- 3 = Moderate
- 5 = Abundant
- Outline Aero-Mag High - - - - -
- Unconformity (approx) - . - . -
- Value = Float Rock
- Value = Outcrop Rock
- Value = R.G.S. Silt Sample
- Value = Krefl Silt Sample





AA East Map (Vulture Area)  
 O = 2004 Kreft Silt Sample Site  
 Cu = Cu In Float  
 BRX = Breccia In Float  
 X = 2004 Kreft Rock Sample Site



0m 500m 1000m 2000m

1:30,000  
 106-D-16 (East half)  
 106-C-13



1000762953

DATE DUE