

Geochemical Sampling Report
On The
Arc 1-6, YC39544 to YC39549
Quartz Claims
Work Period June 27th to June 30th, 2007

Located In
Mayo Mining District
On
NTS 106-D-16
64° 56' Latitude, 134° 20' Longitude

By
Bernie Kreft

December 30, 2007

Location – The Arctos target is located in the Mayo Mining District on NTS mapsheet 106-D-16 at approximately 64° 56' north and 134° 20' east. The mineralized showings occur along the lower slope of a wide U-shaped valley, with lower areas covered by thick brush and willows. Slopes are moderate to gentle and are nowhere consistently steep enough to preclude drilling or other advanced exploration methods. Claims comprising the property are Arc 1-6, YC39544-549 expiring 30 June 2012 (pending acceptance of this report).

Access – Access to the target area was achieved by helicopter from Mayo. Alternate access consists of several winter roads extending from Mayo into the general area, and a good quality 600 metre long gravel airstrip suitable for fixed wing aircraft at Slab Mountain approximately 18km to the northwest.

Target Description – The target is Olympic Dam style Cu-Co-Au-U mineralization associated with a large heterolithic hematitic breccia complex and associated dioritic intrusive bodies.

History – Exploration for copper and uranium has been conducted in the Wernecke Mountains since the mid 1970's. During the early 1990's numerous similarities between the giant Olympic Dam deposit in Australia, and the Cu-Co-U-Au deposits of the Wernecke's were noted. Since that time the area has been subjected to near continuous exploration by various companies including Newmont, Kennecott, Boliden and Westmin. Currently Fronteer Development and several Archer Cathro led companies are re-assessing the district with an emphasis on evaluating the uranium potential of the district. Geology consists of a varied proterozoic (predominantly sedimentary) sequence cut by diorite plugs and dykes which have intruded along major zones of structural weakness. Large areas of metasomatized, brecciated and mineralized rock are often located adjacent to diorite bodies.

The Arctos Prospect was originally discovered during 1976. Over the next few years small mapping and sampling programs by the Mountaineer-Pan Ocean Joint Venture resulted in the definition of nine mineralized zones, concentrated within a 1200m x 800m area of breccia and adjacent altered sediments. Grades up to 42.2% Cu, 0.27% Co and 1.2% U₃O₈ were encountered during the course of work. The property remained dormant until 1993 when Newmont staked the Arctos Prospect as part of a larger block of Slats claims. Although 4 new showings were located, the presence of significant gold (to 930 ppb) proven, the size of the mineralized portion of the breccia complex expanded to an area of 2300m x 800m and recommendations were made for further work, nothing further appears to have been accomplished.

Work by the author during the 2004 field season, while on a YMIP Focused Regional Grant, consisted of a 3 hour visit resulting in 6 silt samples and 5 rock samples. This work confirmed the presence of mineralization in the area, with peak silt sample values of 2269 ppm Cu, 303 ppm Co, 121 ppm U and 139 ppb Au. Most silt results were much lower but were still considered highly anomalous for the region. Limited prospecting extended the mineralization associated with Mountaineer showings 3-4-5 50 metres to the east and south, with all zones remaining open in all directions. Recommendations were made to follow up all silt sample anomalies, as well as for continued prospecting, this work was never completed.

Showing Description Table (historical values only)

Showing	Lithology	Description
#1	Altered Siltstone	Chalcopyrite and Uranium (no values reported, several outcrops)
#2	Altered Siltstone	As Above
#3	Breccia	Peaks of 3 85% Cu, 0 27% Co, 1 2% U3O8, 930 ppb Au
#4	Breccia	Grouped Under Above
#5	Breccia	As Above
#6	Breccia	0 27% Cu, 0 16% U3O8 (several outcrops)
#6A	Meta-siltstone	0 18% Cu, 0 008% U3O8 (outcrop)
#7	Breccia	Chalcopyrite and Uranium (several outcrops, no values reported)
#8	Breccia/Vein	42 2% Cu over 1 metre
#9	Breccia	Chalcopyrite and Uranium (several outcrops, no values reported)
#10	Breccia	Litho geochem Sample 0 14% Cu
#11	Breccia	Talus Samples To 1 65% Cu
#12	Siltstone	Outcrop Grab Of Vein 5 68% Cu
#13	Breccia	3 Grab Samples 0 51% Cu to 0 79% Cu

Work Program – Work consisted of two days of fieldwork conducted on June 28th and June 29th as well as a half day travelling at either end of the program. A total of 49 rock chip and grab samples were taken during the prospecting traverses.

Results – Results were favourable. The location of showings and general geological features, as defined by previous workers, were mostly confirmed. A significant amount of geochemical data was gathered from historical showings (#'s 1,2,7,8,13) that had limited to no information available. A new showing (#14) was also discovered. Mineralization appears to be concentrated within 4 main mineralized zones as follows: Showings #6, #6A, #14 (Outboard Zone), #13, #7, #8 (Ridge Zone), #1, #2 (Confluence Zone), #3, #4, #5 (Baron Zone).

Work at the Outboard Zone confirmed the presence of the previously reported mineralized showings and showed that mineralization, brecciation and alteration is discontinuously distributed within a NW trending zone. There appears to be an increase in the amount of potassic alteration at lower elevations, with near total alteration occurring in several outcrops in the stream bed in the vicinity of showing #6, while alteration is moderate at best in the vicinity of showing #14. Geochemical results returned no anomalous uranium values even though previous workers had reported up to 0 16% U3O8 from grab samples. Precious metal values were at background, and only erratic cobalt values up to 253 ppm were encountered. Given the erratic and low-grade nature of mineralization, and that the zone is located at the boundary of the Arc (Kreft) and Pitch (Fronteer) claims, no further work is recommended. Located on the map as showings #6, #6A and #14.

The Ridge Zone consists of disseminated and vein hosted chalcopyrite, bornite and possibly chalcocite hosted by a variably potassically altered breccia body. Mineralization is best exposed in outcrops that occur along a ridge crest over a minimum 250 metre strike length. Values are predominantly in copper, with anomalous gold, silver and cobalt restricted to rare massive sulphide veins (showing #8). Best potential to expand the zone occurs to the south of the showings under talus and rubble covered slopes. Potential exists to rapidly develop a drill target in this area. Located on the map as showings #13, #7 and #8.

The Confluence Zone represents historical showings with no geochemical or assay data reported. Results show the presence of widespread low but anomalous copper and cobalt values occurring as disseminations and fracture coatings within weakly potassic and sodic altered fractured sediments. Copper occurs predominantly as bornite with minor chalcopyrite and possibly chalcocite. Mineralization occurs within an approximately 125m wide zone, exposed in the creek bank, that remains open to the NW under cover and possibly to the SE. Potential exists to rapidly develop a drill target in this area. Located on the map as showings #1 and #2.

The Baron Zone is the location where the majority of the historical work was concentrated. Sampling confirmed the presence of copper and occasionally significant gold, but again failed to confirm the presence of previously reported uranium values of up to 1.2% U₃O₈. The best mineralization appears to be concentrated within NNW trending shears within a 20 metre wide fracture zone cutting a weakly brecciated sedimentary sequence. The zone is exposed in creek banks and is open to the north and south. Topography suggests shearing and fracturing continues up the hill to the north, while overburden covers the southern strike extent. Potential exists to rapidly develop a drill target in this area. Located on the map as showings #3, #4 and #5.

Maximum Copper Values of the Various Zones (2007 Fieldwork)

Showing	Zone	Lithology	Values
#6	Outboard	potassic weak brx sed	1230 ppm Cu over 3.0m
#14	Outboard	as above	1630 ppm Cu, 115 ppm Co grab
#1	Confluence	weak altered and frac sed	1.02% Cu, 292 ppm Co 0.5m
#2	Confluence	as above	3210 ppm Cu, 682 ppm Co, 1.4m
#3	Baron	fractured potassic brx	1.14% Cu, 430 ppm Co, 850ppb Au 2.5m
#4	Baron	sheared potassic sed	8400 ppm Cu, 4780 ppb Au 1.2m
#8	Ridge	qtz sulphide vein	36.9% Cu, 2800 ppm Co, 580 ppb Au grab
#13	Ridge	potassic altered brx	1.93% Cu, 113 ppm Co grab

Conclusions – Significant values in copper, cobalt and gold were returned from 2007 sampling. Previously reported high values in uranium could not be duplicated (possibly due to analytical method chosen for 2007 samples). The Confluence, Baron and Ridge Zones show sufficient grade and size potential to justify further work. Potential strike extents to these zones are covered in talus, soil and to a limited extent fluvial material. Mineralization is located within the Proterozoic close to a presumed unconformity/thrust with the Cambrian carbonates on the south side of the valley. Fronteer Developments has staked up against the Arctos claims on the north and east sides of the property.

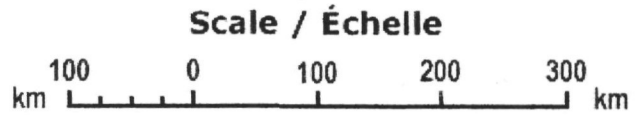
Recommendations – Further work is recommended. Initially, selected 2007 samples should be re-analyzed for uranium using a different analytical method. Fieldwork should consist of hand trenching and soil sampling to the NW of the Baron Zone and to the south of the Ridge Zone. An area encompassing the Ridge and Baron Zones south to the unconformity (1800m x 1000m) should be subjected to an IP and possibly gravity and VLF surveys. The geophysical surveying should not be undertaken until the easterly abutting TVA 17, 18, 36, 38 claims held by Fronteer Exploration expire and the property can be expanded in that direction.

List Of Expenditures

TNTA Helicopters	4 8 hours	\$5,998 25
Wages Helper	3 days	\$954 00
Chemex Assays	49 samples	\$1,455 37
Wages B Kreft	3 days	\$1,200 00
Report Writing		\$900 00
Truck Costs	660km	\$330 00
Food And Camp	6 man days	<u>\$210 00</u>
		\$11,047 62

ARCTIC OCEAN
Océan Arctique

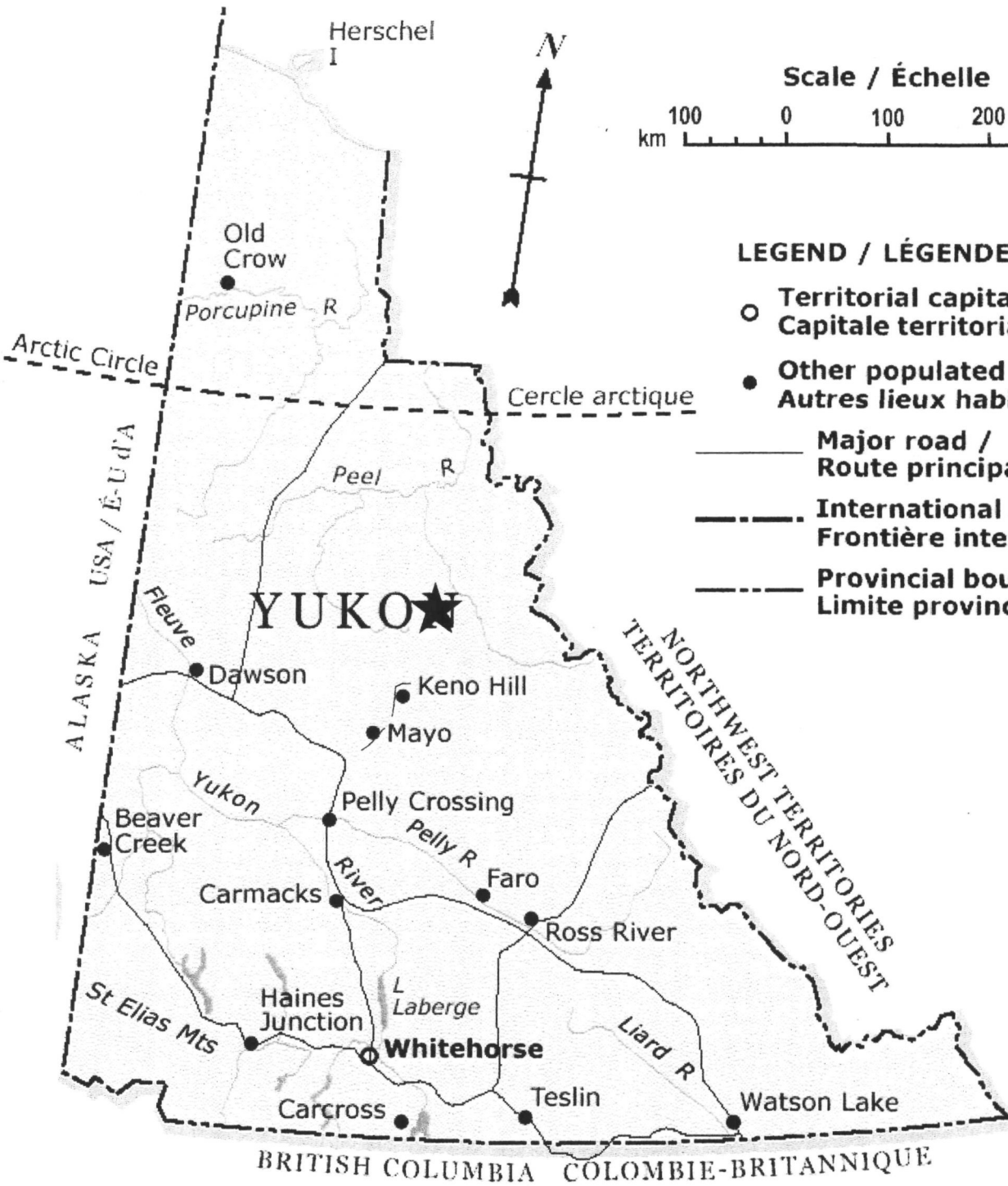
Beaufort Sea
Mer de Beaufort



LEGEND / LÉGENDE

- Territorial capital / Capitale territoriale
- Other populated places / Autres lieux habités

- Major road / Route principale
- - - International boundary / Frontière internationale
- - - Provincial boundary / Limite provinciale



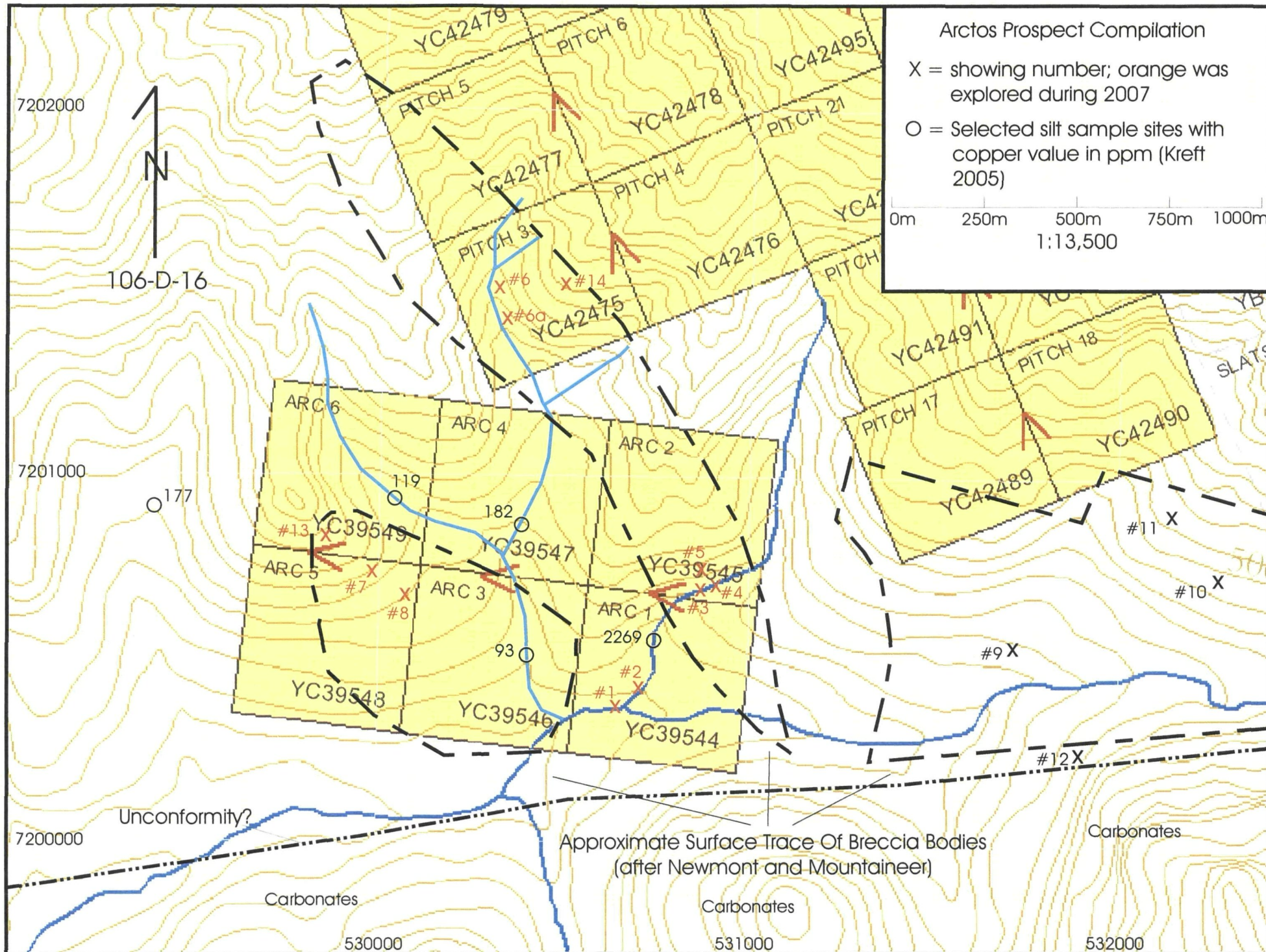
Arctos Project ★

To Accompany: 2007 Arctos Report

December 30, 2007

By: Bernie Kreft

Figure 1



Sample	Type	WEI 21	Au AA23	ME-ICP41	ME ICP41	Cu-OG46	ME ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME ICP41	ME-ICP41
Analyte		Recvd Wt	Au	Co	Cu	Cu	Fe	La	Th	U	Ag	As	Ba
Units		kg	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm
ARR07-01	Rock	0.52	0.015	24	646		4.77	40	< 20	< 10	< 0.2	15	930
ARR07-02	Rock	0.84	0.009	5	237		5.43	60	< 20	< 10	0.6	2	1760
ARR07-03	Rock	0.56	0.046	115	1630		5.24	10	< 20	< 10	3.5	< 2	40
ARR07-04	Rock	0.68	0.013	42	1460		8.07	10	< 20	< 10	0.2	4	100
ARR07-05	Rock	0.4	0.009	19	241		5.87	10	< 20	< 10	< 0.2	19	130
ARR07-06	Rock	0.58	0.03	253	243		5.32	10	< 20	< 10	0.2	50	110
ARR07-07	Rock	0.6	0.02	75	1230		7.92	20	< 20	< 10	< 0.2	10	450
ARR07-08	Rock	0.46	0.014	9	123		1.93	20	< 20	< 10	0.3	7	3330
ARR07-09	Rock	0.6	0.019	19	52		3.57	20	< 20	< 10	0.2	11	210
ARR07-10	Rock	0.96	0.011	12	267		6.3	20	< 20	< 10	< 0.2	14	120
ARR07-13	Rock	1.06	0.006	104	1840		7.85	20	< 20	10	0.8	5	320
ARR07-13A	Rock	0.8	0.034	73	169		5.18	10	< 20	< 10	0.5	< 2	2630
ARR07-14	Rock	0.56	0.015	68	8750		7.8	30	< 20	< 10	5.1	12	1120
ARR07-15	Rock	0.88	0.007	87	1110		7.1	10	< 20	10	0.7	< 2	150
ARR07-16	Rock	0.4	0.005	93	1160		5.01	10	< 20	10	< 0.2	8	1910
ARR07-17	Rock	0.48	0.033	113	> 10000	1.93	11.7	10	< 20	< 10	0.3	14	60
ARR07-18	Rock	1.18	< 0.005	63	743		9.47	40	< 20	< 10	0.3	3	2770
ARR07-19	Rock	0.86	0.03	58	9370		12.4	20	< 20	30	6	14	1430
ARR07-20	Rock	0.4	0.005	27	142		4.04	10	< 20	< 10	< 0.2	2	190
ARR07-21	Rock	0.68	0.022	54	> 10000	1.03	6.1	20	< 20	< 10	6.2	2	510
ARR07-22	Rock	0.78	0.037	34	4070		2.74	20	< 20	30	3.3	150	850
ARR07-23	Rock	0.36	0.021	37	7150		11.15	10	< 20	< 10	3.2	4	220
ARR07-24	Rock	0.78	0.013	83	2230		5.76	90	< 20	< 10	1	2	560
ARR07-25	Rock	0.68	0.022	50	3630		9.82	20	< 20	< 10	2.4	3	420
ARR07-26	Rock	0.56	0.58	2800	> 10000	36.9	14.2	< 10	30	200	76.8	3700	< 10
ARR07-27	Rock	0.7	0.15	246	> 10000	31.6	23	< 10	30	40	26.3	280	10
ARR07-28	Rock	0.64	0.024	292	> 10000	1.02	7.55	< 10	< 20	40	2.9	324	150
ARR07-29	Rock	1	0.008	132	2300		6.68	10	< 20	< 10	0.7	19	260
ARR07-30	Rock	1.16	0.013	682	3210		5.79	10	< 20	< 10	0.9	525	240
ARR07-31	Rock	0.72	0.011	130	1970		6.11	20	< 20	< 10	0.4	81	540
ARR07-32	Rock	0.68	0.021	270	2010		6.38	30	< 20	< 10	0.7	308	350

ARR07-33	Rock	0 8	0 03	378	4120		7 13	40	< 20	20	1 2	270	460
ARR07-34	Rock	0 64	0 027	271	1380		6 49	< 10	< 20	< 10	0 2	119	1870
ARR07-35	Rock	0 96	0 008	20	52		4 3	40	< 20	< 10	< 0 2	3	100
ARR07-36	Rock	0 76	0 01	23	176		3 47	< 10	< 20	< 10	0 2	6	2340
ARR07-37	Rock	0 78	4 78	30	8400		4 5	< 10	< 20	10	3 1	27	100
ARR07-38	Rock	1 18	0 027	62	2410		2 12	10	< 20	10	0 5	73	710
ARR07-39	Rock	1 46	0 85	430	> 10000	1 14	8 74	< 10	< 20	< 10	0 8	57	20
ARR07-40	Rock	0 86	0 266	91	1560		8 06	10	< 20	< 10	0 2	22	370
ARR07-41	Rock	0 68	0 014	22	1120		6 18	10	< 20	< 10	< 0 2	10	340
ARR07-42	Rock	0 98	0 119	94	9970		2 96	10	< 20	10	0 6	41	280
ARR07-43	Rock	0 8	0 026	23	85		9 72	10	< 20	< 10	< 0 2	13	300
ARR07-44	Rock	0 98	0 015	29	360		5 97	10	< 20	< 10	< 0 2	9	170
ARR07-45	Rock	0 8	0 009	64	641		11 1	10	< 20	< 10	0 3	97	310
ARR07-46	Rock	0 48	0 007	122	23		6 25	40	< 20	< 10	< 0 2	9	590
ARR07-47	Rock	0 68	0 016	279	2020		8 16	< 10	< 20	< 10	< 0 2	255	230
ARR07-48	Rock	1 1	0 006	49	23		5 83	30	< 20	< 10	< 0 2	5	280
ARR07-49	Rock	1 18	0 014	47	4020		7 63	< 10	< 20	< 10	1 3	32	90
ARR07-52	Rock	0 84	0 163	182	504		4 81	20	< 20	< 10	< 0 2	41	840

Sample	Medium	Showing	Sample Type/Width	Degree Of Brecciation	Amount Of Hematite	Main Type Of Mineralization	Potassic Alteration	Other
ARR07-01	Rock	#14	rep grab	weak	moderate	chalcopyrite	moderate	
ARR07-02	Rock	#14	rep grab	weak	low	malachite	weak	
ARR07-03	Rock	#14	rep grab	trace	low	chalcopyrite	moderate	
ARR07-04	Rock	#14	rep grab	weak	moderate	malachite	moderate	
ARR07-05	Rock	#14	rep grab	trace	low	chalcopyrite	weak	
ARR07-06	Rock	#6,#6A	2 0m	trace	trace	chalcopyrite	heavy	
ARR07-07	Rock	#6,#6A	3 0m	weak	high	chalcopyrite	heavy	
ARR07-08	Rock	#6,#6A	2 0m	trace	trace	chalcopyrite	total	
ARR07-09	Rock	#6,#6A	2 0m	trace	trace	chalcopyrite	total	
ARR07-10	Rock	#6,#6A	2 0m	trace	trace	chalcopyrite	weak	
ARR07-13	Rock	#13	rep grab	weak	trace	malachite	moderate	
ARR07-13A	Rock	#13	rep grab	weak	trace	no obvious	moderate	
ARR07-14	Rock	#13	rep grab	moderate	moderate	chalcopyrite	moderate	
ARR07-15	Rock	#13	rep grab	moderate	moderate	chalcopyrite	heavy	
ARR07-16	Rock	#13	rep grab	moderate	moderate	chalcopyrite	moderate	
ARR07-17	Rock	#13	rep grab	weak	low	chalcopyrite	moderate	
ARR07-18	Rock	#13	rep grab	weak	trace	malachite	weak	
ARR07-19	Rock	#7	1 0m	moderate	moderate	malachite	moderate	
ARR07-20	Rock	#7	rep grab	weak	low	no obvious	total	
ARR07-21	Rock	#7	rep grab	weak	low	malachite	moderate	
ARR07-22	Rock	#7	rep grab	trace	trace	bornite	weak	
ARR07-23	Rock	#7	rep grab	weak	moderate	malachite	weak	bornite
ARR07-24	Rock	#7	rep grab	weak	trace	malachite	weak	
ARR07-25	Rock	#7	rep grab	weak	trace	bornite	weak	
ARR07-26	Rock	#8	rep grab	no obvious	no obvious	bornite	no obvious	vein
ARR07-27	Rock	#8	rep grab	no obvious	no obvious	chalcopyrite	no obvious	vein
ARR07-28	Rock	#1,#2	0 5m	trace	trace	bornite	weak	
ARR07-29	Rock	#1,#2	2 0m	trace	no obvious	bornite	weak	
ARR07-30	Rock	#1,#2	1 4m	trace	no obvious	bornite	weak	
ARR07-31	Rock	#1,#2	1 0m	trace	no obvious	bornite	weak	
ARR07-32	Rock	#1,#2	1 3m	trace	low	malachite	weak	
ARR07-33	Rock	#1,#2	1 4m	trace	no obvious	bornite	weak	
ARR07-34	Rock	#1,#2	1 0m	trace	no obvious	bornite	weak	
ARR07-35	Rock	#1,#2	1 2m	weak	moderate	no obvious	weak	
ARR07-36	Rock	#3,#4,#5	1 2m	trace	trace	no obvious	heavy	
ARR07-37	Rock	#3,#4,#5	1 2m	trace	trace	malachite	moderate	shear
ARR07-38	Rock	#3,#4,#5	1 3m	trace	trace	chalcopyrite	heavy	
ARR07-39	Rock	#3,#4,#5	2 5m	weak	trace	chalcopyrite	moderate	shear
ARR07-40	Rock	#3,#4,#5	1 2m	trace	trace	chalcopyrite	weak	
ARR07-41	Rock	#3,#4,#5	1 0m	trace	trace	malachite	weak	
ARR07-42	Rock	#3,#4,#5	1 2m	trace	trace	chalcopyrite	weak	
ARR07-43	Rock	#3,#4,#5	1 2m	trace	no obvious	no obvious	no obvious	
ARR07-44	Rock	#1,#2	1 5m	moderate	low	chalcopyrite	moderate	
ARR07-45	Rock	#1 #2	rep grab	moderate	low	chalcopyrite	moderate	
ARR07-46	Rock	#1 #2	0 6m	trace	low	no obvious	moderate	
ARR07-47	Rock	#1 #2	0 2m	trace	trace	bornite	weak	
ARR07-48	Rock	#1 #2	rep grab	weak	moderate	no obvious	moderate	
ARR07-49	Rock	#1 #2	select	trace	trace	bornite	moderate	
ARR07-52	Rock	#3,#4,#5	1 2m	trace	no obvious	malachite	no obvious	

Statement Of Qualifications

I, Bernie Kreft, conducted the exploration work described herein

I have over 22 years prospecting experience in the Yukon

This report is based on fieldwork conducted or witnessed by the author

This report is based on fieldwork completed during the 2007 field season

This report is based on fieldwork completed on the Arc 1-6 quartz claims

Respectfully Submitted,


Bernie Kreft

Costs associated with the project have been
approved in the amount of 3000
for assessment of the project.

Work No. QM00761
JM00752

Mining Record
Mayo Mining