

Division of Geological & Geophysical Surveys

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ROCK GEOCHEMISTRY FROM THE RAMPART MINING DISTRICT

**(TANANA B-1 QUADRANGLE WITH SOME SAMPLES
FROM ADJACENT QUADRANGLES)**

by

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PDF 97-29g - Rock Geochemistry from the Rampart Mining district

Paper Copy:

This report tabulates the results of geochemical analyses of rock samples collected during the field season of 1996 in the Rampart Mining District. The rocks sampled are mainly from the Tanana B-1 quadrangle but some samples are from adjacent quadrangles. Figures 1-3 indicate the sample locations within the B-1 quadrangle. Scale on these figures is approximately 1 inch = 2 miles.

Table 1. lists trace element geochemistry. All samples were analyzed by Bondar Clegg Inc. In the methods row, ICP stands for inductively coupled plasma and AA stands for atomic absorption.

Table 2. lists major oxide geochemistry. Samples were either analyzed by Bondar Clegg Inc. (B-C) or by Rainer Newberry at University of Alaska, Fairbanks (RN-UAF) as indicated in the analyst column of the table.

Table 3. indicates samples for which thin sections have been made.

Disk Copy:

A DOS formatted diskette includes digital files of the analytical data generated for the Rampart mining district by the Division of Geological & Geophysical Surveys (DGGS) in 1997. It is presented in 3 different formats. Files named TANB1GX contain the data in Table 1 - Geochemistry. Files named TANB1MO contain the data in Table 2 - Major Oxides. Files named TANB1TS contains the list in Table 3 - Thin Sections. The three formats are discernable by their extensions.

Files with extensions ".xls" are Microsoft Excel files.

Files with extensions ".txt" are tab delimited ASCII text files.

Files with extensions ".csv" are comma & quote delimited ASCII files.

One or more of these files has been brought into Quattro Pro, Lotus, and earlier versions of Excell successfully. Older versions of some software have a 256 character limit on line length for imported files. This limit is exceeded by in most of the files on this disk. If you are still running such software and need the data, please call Shirley Liss at 907-451-5027.

Files named TANB1CH containing Chert Geochemistry are also included on the diskette. Data from this file were used in DGGS publication PDF 97-29h - the Chert report from the Rampart Mining District.

Figure 1. Geochemistry Stations - Rampart Mining District
Tanana B-1 Quad

All sample id's are preceded by 96

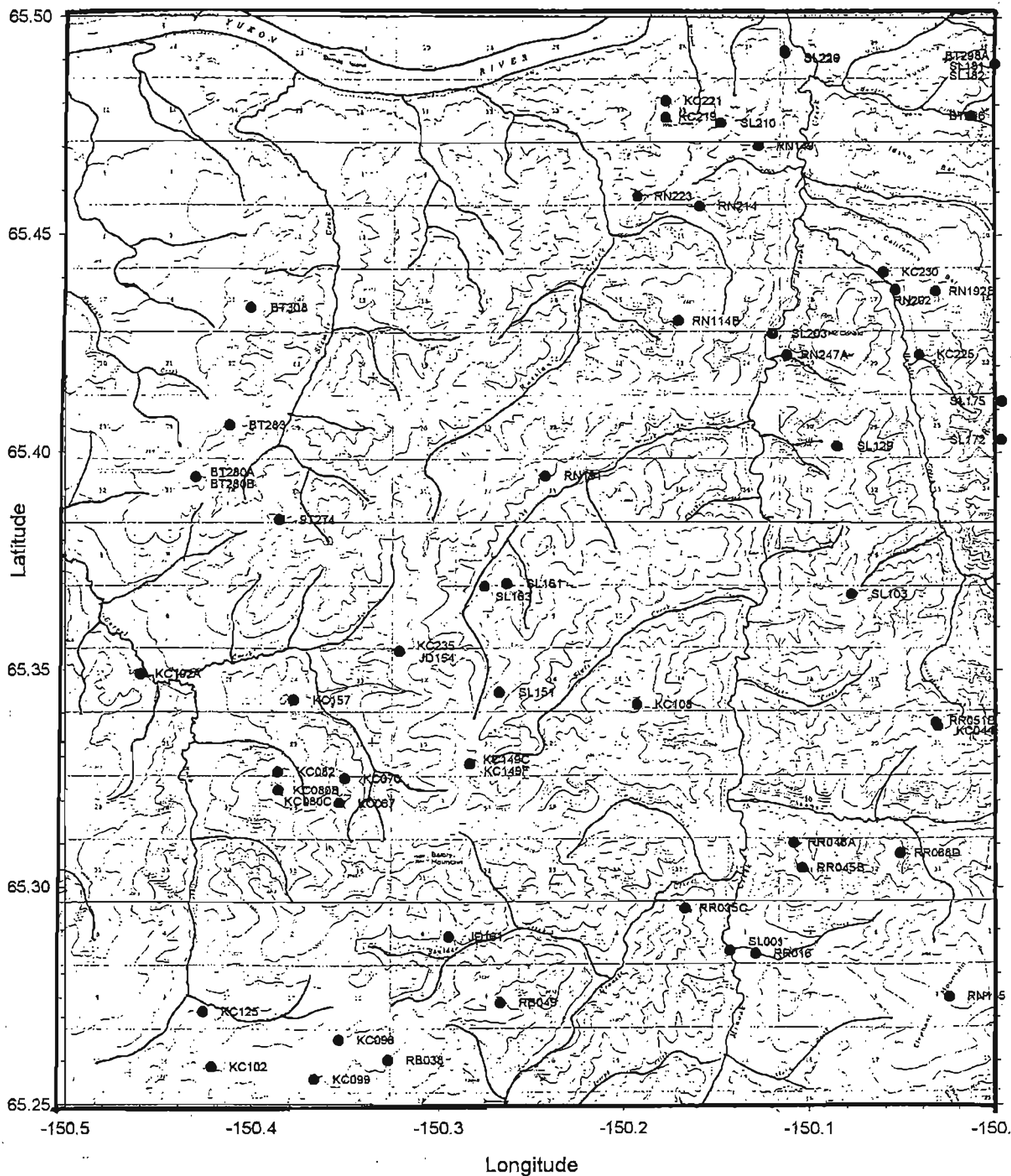


Table 1. Geochemistry Rampart Mining District
Tanana B-1 Quadrangle

Element	
Method	
Units	
Lower Lim	
Upper Lim	
Station ID	Field Description
96BT274	Mixed greenstone/diabase igneous rock with little chlorite
96BT280C	Orangish dolomite carbonate breccia
96BT280D	Orangish dolomite carbonate breccia
96BT283	Dolomite breccia
96BT296	Sulfide material above Dawson Cr.
96BT298A	Tertiary volcanics
96BT308	Basaltic gabbro with olivine?
96JD154	Rampart leuco gabbro
96JD161	Gabbro dike
96KC044	Gabbro
96KC067	Vuggy, limonite & manganese stained quartz with black quartzite/chert
96KC070	Aphanitic, somewhat schistose greenstone
96KC080B	Dark green chlorite schist with serpentinite alteration
96KC080C	Quartz vein with chlorite and dark red limonite
96KC082	Quartz vein with dark orange limonite in vugs within volcanic(?)clastics
96KC096	Mn & quartz veins in tan, sugary quartzite rubble
96KC099	Crenulated light green tuff?
96KC102	Dense, siliceous, light green rock with sulfides (po, cpy)-looks like a calc-silicate
96KC108	Mottled gray-green tuffaceous slate with quartz veinlets & iron staining
96KC125	Moderate limonite stain on gray-white cherty quartzite
96KC149C	Hematite-red altered metavolcanic with disseminated pyrite veinlets
96KC149F	Quartz-carbonate vein
96KC157	Medium grained, light tan phlogopite (?) carbonate rock. Altered Ruby marble near gabbro dike
96KC192A	A 10" wide limonite zone in light gray aphanitic rhyolite
96KC203	Float limonite goethite boxwork near reported carbonatite Tofty
96KC219	Dark pink rhyolite, green-yellow scorodite(?), trace sulfides arsenopyrite?
96KC221	Orange-tan, flow-banded rhyolite
96KC225	Altered gabbro, tan-orange with sulfides & quartz-carbonate-alderite veins Rampart Group
96KC230	Rampart gabbro with calcite veinlets throughout - trace disseminated chalcopyrite
96KC235	Rampart or Tertiary gabbro
96RB038	Argillite
96RB049	Mineralized reddish oxide zone in dolostone
96RN114B	Vein or high angle fault with sulfides
96RN149	Tertiary rhyolite, tuff, obsidian
96RN185	Altered Granite
96RN191	Quartz breccia zone
96RN192B	Hoosier Creek quartz vein
96RN202	Altered granite dike
96RN214	Rhyolite tuff
96RN223	Basalt
96RN247A	Rampart Gabbro
96RR016	Light green fine grained tuff?
96RR035C	Siliceous argillite
96RR046A	Light green tuff
96RR051D	Sandstone
96RR068D	Wilber Cr ? sandstone/shale
96SL001	Pyrite in black Permian shale
96SL103	Gossan-like zone/fault gouge with Copper show
96SL129	Greenish mica quartzite
96SL151	Chert
96SL161	Gabbro near Kaltag fault
96SL163	Shale N of Kaltag
96SL172	Meta volcanic, minor component of and found with Amy Cr dolostone
96SL175	Greenstone with Amy Cr
96SL181	Altered volcanic rock - Rampart?
96SL182	Altered rhyolite tuff - Tertiary
96SL203	Volcanic + pyrite Rampart
96SL210	Tuff Tertiary
96SL219	Rampart volcanic? with pyrite
96SL220	Altered volcanic + Cu - Rampart

Table 1. Geochemistry Rampart Mining District
Tanana B-1 Quadrangle

Element			Ag	Au	Cu	Pb	Zn	Mo	Ni	Co	Cd	Bi	Bi	As
Method			ICP	AA	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	AA	ICP
Units			PPM	PPB	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
Lower Lim			0.2	5	1	2	1	1	1	1	0.2	5	1	5
Upper Lim			200	10000	10000	10000	10000	10000	20000	20000	2000	2000	2000	10000
Station ID	Lat. dec.deg	Long dec.deg												
96BT274	65.3846	-150.3853	33.6	13	4837	4107	874	1	12	5	11.8	58	62.1	12
96BT280C	65.3943	-150.4304	<0.2	<5	14	4	18	<1	1011	49	<0.2	<5	<8	16
96BT280D	65.3943	-150.4304	<0.2	<5	7	<2	17	<1	893	53	<0.2	<5	<9	16
96BT283	65.4081	-150.4118	<0.2	17	18	13	11	<1	570	28	<0.2	<5	<1	11
96BT296	65.4775	-150.0131	0.4	<5	27	3	8	<1	13	2	<0.2	<5	0.7	17
96BT298A	65.4894	-150.0000	<0.2	<5	8	8	63	<1	4	3	<0.2	<5	<8	8
96BT308	65.4331	-150.4005	<0.2	<5	32	3	58	1	162	38	<0.2	<5	0.9	43
96JD154	65.3542	-150.3207	<0.2	<5	84	13	70	<1	71	28	0.4	<5	<9	<5
96JD161	65.2881	-150.2944	<0.2	<5	421	<2	48	<1	28	18	0.2	<5	<9	9
96KC044	65.3371	-150.0313	<0.2	<5	15	3	26	<1	18	3	0.3	<5	<1	8
96KC067	65.3193	-150.3534	<0.2	<5	240	114	560	19	36	8	2	<5	<1	27
96KC070	65.3250	-150.3505	<0.2	<5	8	<2	5	1	10	1	<0.2	<5	<9	<5
96KC080B	65.3223	-150.3858	<0.2	<5	31	3	88	1	35	35	<0.2	<5	<0.2	8
96KC080C	65.3223	-150.3858	<0.2	<5	33	<2	14	<1	15	5	<0.2	<5	<1	<5
96KC082	65.3285	-150.3880	<0.2	<5	3	5	4	<1	4	2	<0.2	<5	<9	<5
96KC098	65.2647	-150.3640	<0.2	<5	185	3	220	5	49	51	10.2	8	<0.2	8
96KC099	65.2558	-150.3673	0.3	<5	85	2	48	<1	37	19	<0.2	<5	<1	17
96KC102	65.2588	-150.4217	<0.2	<5	114	3	58	<1	55	23	0.3	<5	<9	<5
96KC108	65.3419	-150.1923	<0.2	8	8	5	4	3	8	<1	<0.2	<5	<1	<5
96KC125	65.2712	-150.4283	<0.2	<5	33	<2	18	2	8	2	<0.2	<5	<0.2	9
96KC149C	65.3284	-150.2829	<0.2	<5	32	<2	53	<1	21	27	<0.2	8	0.5	48
96KC149F	65.3284	-150.2829	<0.2	<5	8	<2	11	<1	8	2	<0.2	<5	<9	8
96KC157	65.3428	-150.3777	<0.2	<5	7	17	73	<1	5	3	<0.2	<5	0.3	19
96KC192A	65.3489	-150.4587	0.8	287	8	15	78	1	2	13	0.8	<5	<9	17
96KC203	65.1078	-150.8887	1.8	8	73	7	471	5	488	50	0.9	12	<1	414
96KC219	65.4789	-150.1770	<0.2	<5	5	11	38	<1	4	2	<0.2	<5	<1	7
96KC221	65.4808	-150.1788	<0.2	<5	4	14	88	2	1	1	<0.2	<5	<1	8
96KC225	65.4228	-150.0415	<0.2	<5	83	13	148	<1	33	27	<0.2	<5	<9	58
96KC230	65.4418	-150.0809	<0.2	<5	180	8	76	<1	41	21	<0.2	<5	<9	7
96KC235	65.3543	-150.3210	<0.2	<5	77	13	27	<1	118	32	<0.2	<5	<9	35
96RB038	65.2801	-150.3274	<0.2	<5	84	51	422	4	48	21	4.2	<5	<9	457
96RB049	65.2731	-150.2883	<0.2	<5	7	8	117	<1	8	<1	1.8	<5	<9	18
96RN114B	65.4302	-150.1898	<0.2	<5	13	3	8	1	6	1	<0.2	<5	<1	<5
96RN149	65.4705	-150.1277	<0.2	<5	6	8	37	<1	4	4	<0.2	<5	<1	7
96RN185	65.2747	-150.0253	0.2	184	2	28	7	2	3	<1	<0.2	<5	<1	2211
96RN191	65.3946	-150.2472	8.7	42	3878	7	48	<1	20	100	<0.2	<5	7	118
96RN192B	65.4372	-150.0324	<0.2	13	101	4	8	<1	78	24	<0.2	<5	<1	15
96RN202	65.4375	-150.0544	0.4	27	8	8	14	2	8	10	<0.2	<5	<9	1690
96RN214	65.4585	-150.1587	<0.2	<5	1	12	22	<1	<1	<1	<0.2	<5	<9	8
96RN223	65.4587	-150.1828	<0.2	<5	2	20	128	<1	<1	3	<0.2	<5	<9	9
96RN247A	65.4224	-150.1120	<0.2	<5	2	4	18	<1	3	1	0.5	<5	<9	<5
96RR018	65.2844	-150.1291	<0.2	12	99	5	75	2	28	8	<0.2	<5	<1	11
96RR035C	65.2948	-150.1659	0.2	15	22	6	59	<1	38	6	<0.2	<5	<1	15
96RR046A	65.3102	-150.1081	<0.2	7	31	4	48	<1	28	10	<0.2	<5	<1	12
96RR051D	65.3380	-150.0325	-9	6	-8	-8	-8	-8	-8	-8	-8	-8	<1	-8
96RR068D	65.3078	-150.0520	0.4		108	<2	81	<1	57	28	<0.2	<5		28
96SL001	65.2850	-150.1425	<0.2	<5	78	28	180	3	38	10	<0.2	<5	<1	73
96SL103	65.3877	-150.0778	<0.2	<5	28	4	8	2	5	<1	<0.2	<5	<1	12
96SL129	65.4015	-150.0853	<0.2	<5	10	8	35	<1	14	7	<0.2	<5	<1	9
96SL151	65.3447	-150.2887	<0.2	<5	11	<2	5	<1	8	3	<0.2	<5	<1	<5
96SL161	65.3700	-150.2825	<0.2	<5	84	4	85	<1	47	27	<0.2	<5	<1	16
96SL163	65.3684	-150.2747	<0.2	7	54	22	107	<1	27	5	<0.2	<5	<1	22
96SL172	65.4028	-148.8887	<0.2	<5	111	7	133	<1	84	41	<0.2	<5	<1	16
96SL175	65.4118	-148.9985	<0.2	<5	11	4	31	<1	20	10	<0.2	<5	<1	8
96SL181	65.4892	-148.9934	<0.2	<5	4	8	72	<1	1	6	<0.2	<5	<1	5
96SL182	65.4878	-148.9951	<0.2	<5	2	11	18	<1	<1	4	<0.2	<5	<1	<5
96SL203	65.4273	-150.1198	<0.2	<5	22	5	80	<1	45	16	<0.2	<5	0.5	28
96SL210	65.4757	-150.1477	<0.2	33	7	8	88	3	4	<1	<0.2	<5	0.4	82
96SL219	65.4819	-150.1131	<0.2	<5	128	<2	75	<1	42	28	<0.2	<5	0.4	45
96SL220	65.4924	-150.1132	1.2	<5	871	8	30	<1	13	8	<0.2	8	5.3	37

Table 1. Geochemistry Rampart Mining District
Tanana B-1 Quadrangle

Element	Sb	Fe	Mn	Te	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K
Method	ICP	ICP	ICP	ICP	AA	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
Units	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT
Lower Lim	5	0.01	1	10	0.1	1	1	1	20	20	1	0.01	0.01	0.01	0.01	0.01
Upper Lim	2000	10	20000	2000	2000	2000	20000	20000	2000	2000	2000	10	10	10	10	10
Station ID																
96BT274	<5	1.9	323	<10	0.6	12	237	18	<20	<20	2	0.5	0.47	0.53	<0.01	0.02
96BT280C	<5	3.05	586	<10	<8	8	522	16	<20	<20	4	0.24	4.85	1.18	<0.01	<0.01
96BT280D	<5	2.95	663	<10	<8	12	467	16	<20	<20	4	0.23	4.89	1.22	<0.01	<0.01
96BT283	<5	2.3	830	<10	<0.1	4	216	12	<20	<20	5	0.12	3.4	8.56	<0.01	<0.01
96BT296	24	7.88	1359	<10	0.7	6	125	21	<20	<20	8	0.2	0.14	3.86	<0.01	<0.01
96BT298A	<5	1.55	138	<10	<8	65	78	18	<20	<20	23	0.58	0.08	0.14	0.1	0.17
96BT308	<5	4.46	840	<10	0.2	85	87	18	<20	<20	12	4.35	3.59	2.78	0.57	0.13
96JD154	9	4.89	979	<10	<8	422	119	140	<20	<20	4	4.47	2.65	3.62	0.06	0.08
96JD161	10	2.73	514	<10	<8	50	27	63	<20	<20	6	1.71	1.05	0.91	0.06	0.15
96KC044	<5	1.28	162	<10	0.3	87	114	17	<20	<20	9	0.9	0.67	0.24	0.02	0.15
96KC067	11	7.33	184	<10	1.2	51	206	83	<20	<20	<1	1.3	0.04	0.89	0.01	0.27
96KC070	<5	0.33	59	<10	<8	6	357	1	<20	<20	<1	0.02	<0.01	0.01	<0.01	<0.01
96KC080B	<5	2.29	8101	<10	0.2	>2000	219	8	<20	<20	2	0.91	1.13	0.03	0.01	0.04
96KC080C	<5	1.29	940	<10	<0.1	110	158	4	<20	<20	13	0.35	0.01	0.13	0.03	0.18
96KC082	<5	0.39	305	<10	<8	14	127	<1	<20	<20	4	0.02	<0.01	0.06	<0.01	<0.01
96KC096	<5	1.08	>20000	<10	0.1	489	248	4	<20	<20	2	0.16	0.02	0.02	0.01	0.28
96KC099	<5	4.05	665	<10	0.7	7	88	103	<20	<20	3	1.9	1.59	0.78	0.04	<0.01
96KC102	<5	2.74	731	<10	<8	21	118	37	<20	<20	<1	2.16	1.83	0.54	0.03	0.01
96KC108	<5	0.59	18	<10	<0.1	31	188	4	<20	<20	2	0.1	0.01	<0.01	0.02	0.03
96KC125	<5	1.1	185	<10	0.1	28	205	8	<20	<20	2	0.22	<0.01	<0.01	<0.01	0.07
96KC149C	<5	6.89	1531	<10	0.4	13	19	30	<20	<20	13	0.87	1.92	3.06	0.21	0.02
96KC149F	<5	1.28	505	<10	<8	3	251	10	<20	<20	1	0.04	1.29	2.81	0.02	<0.01
96KC157	<5	1.38	846	<10	0.5	788	15	23	<20	<20	17	2.09	3.14	10.00	0.03	1.34
96KC192A	14	4.34	627	<10	<8	103	41	158	<20	<20	17	1.51	0.88	1.17	0.08	0.13
96KC203	7	>10.00	578	<10	3.5	733	224	149	<20	<20	595	0.29	0.06	0.49	<0.01	0.01
96KC219	<5	1.83	130	<10	<0.1	50	74	15	<20	<20	28	0.35	0.11	0.11	0.04	0.32
96KC221	<5	0.9	392	<10	<0.1	57	27	5	<20	<20	69	0.36	0.03	0.09	0.09	0.23
96KC225	18	7.38	1832	<10	<8	18	12	148	<20	<20	7	0.88	2	4.27	0.02	0.02
96KC230	9	5.07	1229	<10	<8	41	84	171	<20	<20	8	2.88	2.08	6.48	0.02	0.03
96KC235	6	5.1	1888	<10	<8	68	168	35	<20	<20	4	0.72	3.61	9.88	0.01	0.08
96RB038	7	6.68	430	<10	<8	141	34	28	<20	<20	19	0.83	0.1	1.2	<0.01	0.44
96RB049	11	0.58	270	<10	<8	27	5	8	<20	<20	5	0.33	4.21	10.00	0.01	0.16
96RN114B	8	0.55	88	<10	0.1	17	251	3	<20	<20	1	0.1	<0.01	0.03	0.02	0.02
96RN149	<5	1.88	1811	<10	<0.1	80	50	32	<20	<20	28	0.74	0.32	2.98	0.11	0.17
96RN185	81	1.14	22	<10	0.3	78	145	2	<20	<20	17	0.43	<0.01	0.02	0.06	0.29
96RN191	5	3.51	434	<10	2.1	14	158	8	<20	<20	31	0.8	0.2	0.05	<0.01	0.11
96RN192B	7	1.79	180	<10	<0.1	31	240	<1	<20	<20	<1	0.04	<0.01	0.04	<0.01	<0.01
96RN202	16	0.38	24	<10	<8	18	45	<1	<20	<20	14	0.33	0.03	0.08	0.05	0.13
96RN214	<5	0.28	52	<10	<8	101	11	2	<20	<20	50	0.61	0.02	0.21	0.18	0.68
96RN223	<5	4.48	661	<10	<8	95	12	20	<20	<20	48	0.9	0.33	0.6	0.07	0.27
96RN247A	<5	0.24	440	<10	<8	14	43	7	<20	<20	4	0.18	0.16	9.83	0.01	<0.01
96RR016	<5	2.45	161	<10	0.2	522	41	36	<20	<20	14	1.38	0.96	0.05	<0.01	0.18
96RR035C	<5	2.24	57	<10	0.3	859	99	45	<20	<20	18	1.62	0.74	0.06	<0.01	0.32
96RR046A	<5	1.88	794	<10	0.1	388	34	27	<20	<20	15	1.44	1.02	0.04	0.01	0.22
96RR051D	-9	-9	-9	-8	1.1	-9	-8	-8	-8	-8	-8	-8	-8	-8	-8	-8
96RR068D	<5	5.81	1270	<10		67	31	199	<20	<20	14	2.88	2.52	3.57	0.04	0.01
96SL001	15	>10.00	2528	<10	1.8	12	48	86	<20	<20	<1	2.79	1.7	1.96	<0.01	<0.01
96SL103	<5	0.61	31	<10	0.3	181	154	15	<20	<20	1	0.28	<0.01	0.01	<0.01	0.1
96SL129	<5	2	185	<10	<0.1	48	160	5	<20	<20	17	0.86	0.37	0.05	0.01	0.16
96SL151	<5	0.41	169	<10	<0.1	25	234	4	<20	<20	<1	0.14	0.01	0.04	<0.01	0.06
96SL161	<5	8.24	1054	<10	0.5	117	45	134	<20	<20	<1	2.83	2.18	2.6	0.04	0.02
96SL163	8	5.22	368	<10	0.4	155	50	30	<20	<20	24	2.24	1.58	0.04	0.01	0.26
96SL172	9	>10.00	716	<10	0.6	350	60	80	<20	<20	4	4.15	1.62	3.11	0.01	0.22
96SL175	<5	1.31	602	<10	0.3	72	35	8	<20	<20	23	1.2	0.48	0.06	0.02	0.47
96SL181	<5	1.34	81	<10	0.3	83	15	24	<20	<20	27	0.86	0.22	0.18	0.08	0.19
96SL182	<5	0.25	124	<10	<0.1	950	14	2	<20	<20	52	1.02	0.1	0.27	0.01	0.55
96SL203	<5	3.66	489	<10	0.2	105	88	28	<20	<20	22	1.8	1.2	0.39	0.02	0.26
96SL210	<5	1.7	225	<10	0.1	81	82	2	<20	<20	9	0.8	0.02	0.03	0.08	0.23
96SL219	<5	5.98	1849	<10	0.3	169	29	205	<20	<20	13	3.76	2.28	2.48	0.25	0.04
96SL220	<5	2.54	946	<10	2.1	891	217	38	<20	<20	6	1.47	0.91	0.19	0.04	0.28

Table 1. Geochemistry Rampart Mining District
Tanana B-1 Quadrangle

Element	Sr	Y	Ga	Li	Nb	Sc	Ta	Ti	Zr
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
Units	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM
Lower Lim	1	1	2	1	1	5	10	0.01	1
Upper Lim	2000	2000	10000	20000	10000	2000	1000	5	5000
Station ID									
96BT274	9	3	<2	7	<1	<5	<10	0.02	<1
96BT280C	43	<1	<2	17	<1	<5	<10	<0.01	1
96BT280D	31	<1	3	13	<1	<5	<10	<0.01	<1
96BT283	482	<1	<2	3	<1	<5	<10	<0.01	<1
96BT296	29	8	<2	1	1	<5	<10	<0.01	<1
96BT298A	12	12	2	3	<1	<5	<10	0.09	21
96BT308	132	8	6	4	<1	<5	<10	0.07	10
96JD154	51	6	5	22	3	13	<10	0.12	3
96JD161	82	5	<2	15	5	<5	<10	0.28	5
96KC044	29	8	<2	15	4	<5	<10	<0.01	2
96KC067	110	23	<2	18	11	<5	<10	<0.01	3
96KC070	3	<1	<2	<1	<1	<5	<10	<0.01	2
96KC080B	38	2	12	25	<1	<5	<10	<0.01	3
96KC080C	7	4	<2	6	3	<5	<10	<0.01	2
96KC082	14	2	<2	<1	<1	<5	<10	<0.01	<1
96KC096	289	2	498	3	<1	<5	<10	<0.01	1
96KC099	9	7	5	7	<1	<5	<10	0.48	3
96KC102	7	3	<2	21	2	<5	<10	0.28	1
96KC108	4	<1	<2	<1	<1	<5	<10	<0.01	2
96KC125	2	2	<2	1	<1	<5	<10	<0.01	1
96KC149C	114	8	<2	3	<1	10	<10	<0.01	1
96KC149F	125	2	<2	<1	<1	<5	<10	<0.01	<1
96KC157	143	8	5	34	<1	<5	<10	0.06	1
96KC192A	22	12	10	38	7	<5	<10	0.02	5
96KC203	471	38	<2	2	13	18	<10	<0.01	2
96KC219	4	20	2	18	1	<5	<10	0.64	25
96KC221	5	35	2	2	<1	<5	<10	0.02	83
96KC225	99	7	<2	32	3	15	<10	<0.01	<1
96KC230	132	10	<2	23	4	11	<10	0.15	3
96KC235	111	7	<2	8	1	8	<10	<0.01	2
96RB038	13	10	<2	4	3	<5	<10	<0.01	8
96RB049	29	4	<2	2	4	<5	<10	<0.01	3
96RN114B	6	<1	<2	1	<1	<5	<10	<0.01	<1
96RN149	40	14	<2	11	8	<5	<10	0.05	18
96RN185	10	3	<2	4	2	<5	<10	<0.01	7
96RN191	2	6	<2	8	3	<5	<10	<0.01	1
96RN192B	6	<1	<2	<1	<1	<5	<10	<0.01	<1
96RN202	9	<1	<2	5	<1	<5	<10	<0.01	12
96RN214	63	14	3	2	9	<5	<10	0.02	20
96RN223	17	27	5	20	18	7	<10	0.32	21
96RN247A	496	3	<2	3	1	<5	<10	<0.01	<1
96RR016	15	2	4	20	<1	<5	<10	<0.01	5
96RR035C	8	3	3	20	<1	<5	<10	<0.01	8
96RR046A	8	3	4	25	<1	<5	<10	<0.01	3
96RR051D	-9	-9	-8	-9	-8	-9	-9	-9	-9
96RR068D	185	11	9	35	<1	13	<10	0.25	8
96SL001	240	5	<2	53	2	<5	<10	<0.01	6
96SL103	18	2	<2	1	1	<5	<10	<0.01	2
96SL129	6	2	<2	11	<1	<5	<10	<0.01	3
96SL151	2	<1	<2	2	<1	<5	<10	<0.01	<1
96SL161	71	8	<2	38	4	9	<10	0.25	2
96SL163	21	3	<2	31	2	<5	<10	<0.01	4
96SL172	78	15	<2	31	7	7	<10	<0.01	1
96SL175	5	3	<2	6	2	<5	<10	0.02	3
96SL181	9	13	<2	14	8	<5	<10	0.18	48
96SL182	186	13	<2	2	8	<5	<10	<0.01	14
96SL203	21	4	4	37	<1	<5	<10	<0.01	3
96SL210	5	18	9	6	<1	<5	<10	<0.01	26
96SL219	48	13	8	34	<1	10	<10	0.35	12
96SL220	6	3	5	12	<1	<5	<10	<0.01	4

Figure 2. Major Oxide Stations - Rampart Mining District
Tanana B-1 Quad

All sample id's are preceded by 96

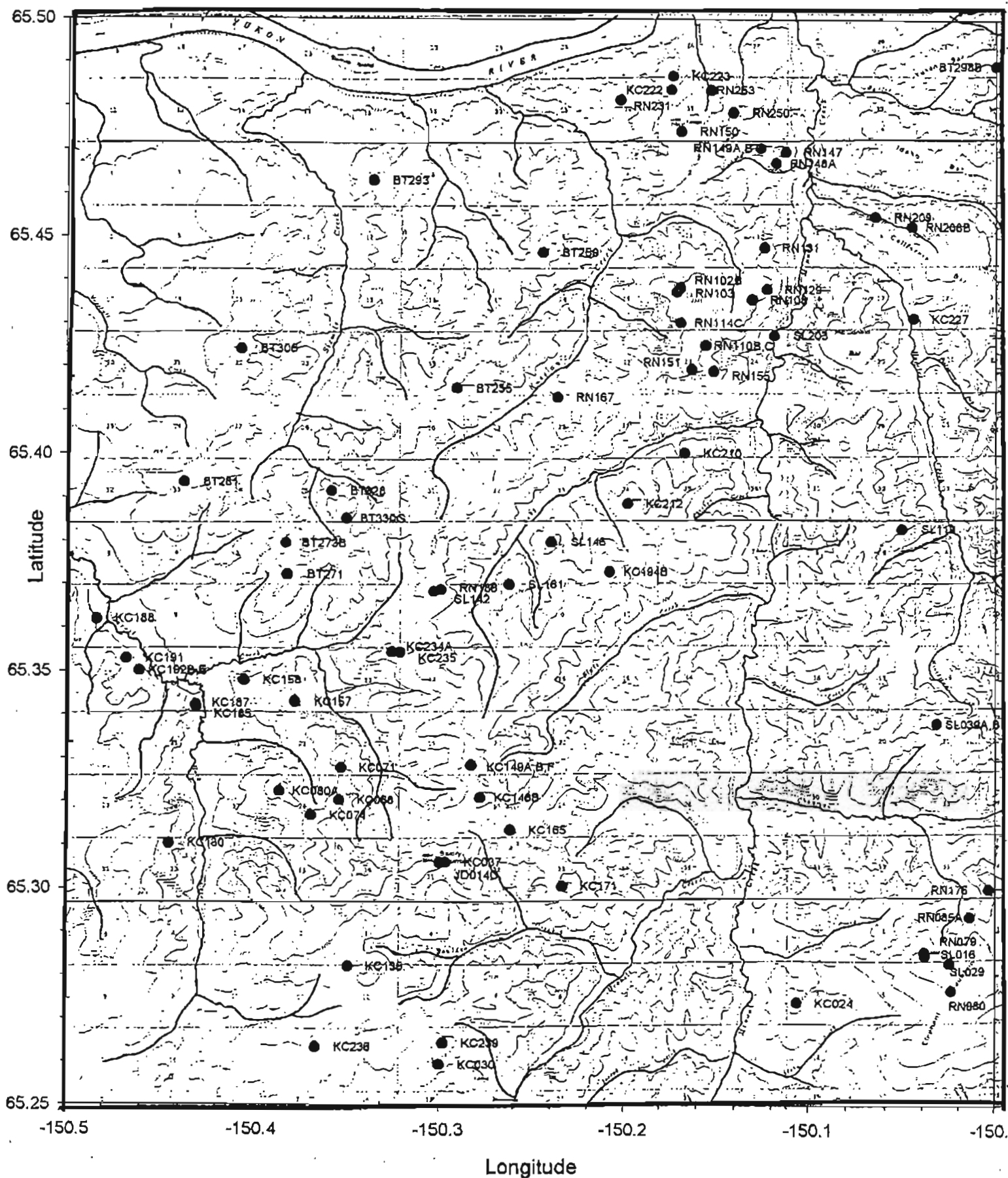


Table 2. Major Oxide Analyses - Rampart Mining District
Tanana B-1 Quadrangle

Oxide or Item			
Method			
Units			
Lower Lim			
Upper Lim			
		Lat.	Long
Station ID	Field Description	dec.deg	dec.deg
96BT259	Meta basalt/andesite	65.4464	-150.2450
96BT271	Rampart phyllite??	65.3721	-150.3820
96BT273B	Gabbro	65.3794	-150.3827
96BT281	Dark grey aphanitic to fine grain basalt	65.3934	-150.4379
96BT293	Intermediate medium green porphyritic feldspar intrusive	65.4629	-150.3361
96BT294A	Calcite veins - Hunter Cr.	65.4775	-149.9951
96BT294BGN	Rampart volcanics - altered diabase?	65.4903	-149.9890
96BT298B	Basalt	65.4894	-150.0000
96BT306	Basalt	65.4239	-150.4070
96BT328	Light to medium green diabase	65.3915	-150.3589
96BT330G	Rampart gabbro	65.3852	-150.3505
96JD014D	Tuff? or phyllite??	65.3059	-150.2997
96KC024	Light green phyllite, metatuff?, Permian	65.2736	-150.1063
96KC030	Grainstone dike in dolostone	65.2593	-150.2998
96KC037	Gray-green, fine-med grained volcani(?)clastic rock	65.3060	-150.2965
96KC068	Mottled light-dark green chlorite schist-derived from mafic volcanic(?)	65.3203	-150.3542
96KC074	Gray-green fine-grained volcani(?)clastic, P/P	65.3167	-150.3882
96KC080A	Dark green chlorite schist with serpentine? alteration(MO smpl);	65.3223	-150.3858
96KC130	Quartzite/altered fine-grained felsic meta-Igneous, white mica & pyrite cubes	65.3102	-150.4454
96KC135	Dark gray, fine grained, massive meta-andesite(?)	65.2819	-150.3492
96KC146B	Dark green, aphanitic, 'greenstone', associated with orange-weathering limestone	65.3208	-150.2781
96KC149A	Dense 'greenstone', slightly schistose with light green layer	65.3284	-150.2829
96KC149B	Light green layer in schistose greenstone	65.3284	-150.2829
96KC149F	Quartz-carbonate vein	65.3284	-150.2829
96KC157	Medium grained, tan, phlogopite carbonate. Altered Ruby marble near gabbro dike	65.3429	-150.3777
96KC158	Orange-brown weathering, fractured basalt, intrudes limestone, Rampart Group	65.3478	-150.4046
96KC165	Dark gray-green aphanitic greenstone in gray phyllite & gray-green volcanoclastic	65.3134	-150.2816
96KC171	Black phyllite	65.3005	-150.2337
96KC185	Diabase	65.3418	-150.4309
96KC187	Gabbro	65.3422	-150.4310
96KC188	Volcanoclastic, Rampart Group or Tertiary?	65.3618	-150.4833
96KC191	Gabbro, magnetic; Rampart Group or Tertiary	65.3528	-150.4678
96KC192B	Lt gray, aphanitic rhyolite	65.3500	-150.4608
96KC192E	Basalt; Tertiary	65.3500	-150.4608
96KC192r	Tertiary rhyolite	65.3500	-150.4608
96KC194B	Calc sandstone (metavolcanic?)	65.3728	-150.2083
96KC204	Float rock, altered dark green ultramafic dike(?) near reported carbonatite	65.1076	-150.8667
96KC210	Rampart Group gabbro, just north of Kaltag fault	65.4003	-150.1672
96KC212	Rampart Group gabbro, just north of Kaltag fault	65.3887	-150.1984
96KC222	Tertiary rhyolite	65.4837	-150.1755
96KC223	Basalt, probably Tertiary, could be Rampart Group	65.4869	-150.1745
96KC227	Rampart gabbro, fairly fresh	65.4314	-150.0455
96KC227	Rampart gabbro, fairly fresh	65.4314	-150.0455
96KC234A	Magnetite-bearing gabbro (green plag.), Rampart Group or Tertiary volcanics	65.3544	-150.3253
96KC235	Rampart(?) gabbro (could be Tertiary)	65.3543	-150.3210
96KC236	Light tan, sugary-textured quartzite at Avnet Mn prospect meta aplite or rhyolite?	65.2633	-150.3668
96KC239	Greenstone dike intruding Amy dolostone	65.2642	-150.2978
96RN016	Manley hot springs granite	65.0435	-150.6028
96RN022	K? diorite dike	65.2467	-150.0869
96RN030	K quartzite	65.2232	-150.1881
96RN079	K quartz monzo-granite	65.2853	-150.0386
96RN080	K altered granite	65.2764	-150.0240

Table 2. Major Oxide Analyses - Rampart Mining District
Tanana B-1 Quadrangle

Oxide or Item			
Method			
Units			
Lower Lim			
Upper Lim			
		Lat.	Long
Station ID	Field Description	dec.deg	dec.deg
96RN085A	K monzo-diorite hornfels	65.2935	-150.0139
96RN102B	Rampart gabbro	65.4383	-150.1699
96RN103	Rampart gabbro	65.4373	-150.1718
96RN108	Mafic dike/Ruby marble	65.4356	-150.1320
96RN110B	Ruby amphibolite, metabasalt; K? dike	65.4249	-150.1584
96RN110C	Ruby amphibolite, metabasalt; K? dike	65.4249	-150.1564
96RN114C	Rampart? phyllite + float/vein + K? dike	65.4302	-150.1698
96RN129	Ruby amphibolite + marble	65.4380	-150.1239
96RN131	Rampart gabbro	65.4477	-150.1253
96RN147	Tertiary rhyolite	65.4697	-150.1138
96RN148A	Tertiary basalt	65.4671	-150.1191
96RN149A	Tertiary rhyolite, tuff, obsidian	65.4705	-150.1277
96RN149B	Tertiary rhyolite, tuff, obsidian	65.4705	-150.1277
96RN150	Tertiary basalt	65.4742	-150.1699
96RN151	Tertiary volcanic?	65.4194	-150.1636
96RN155	Ruby biotite quartz schist + amphibolite	65.4190	-150.1522
96RN167	K? trachyte dike	65.4130	-150.2368
96RN175	K biotite monzonite dike + K hornfels	65.2999	-150.0033
96RN184	Elephant Mt. Quartz monzonite	65.3053	-149.9714
96RN186	Gabbro	65.3687	-150.2991
96RN193	Monzodiorite	65.3244	-149.9258
96RN200	Monzodiorite	65.3192	-149.9389
96RN201	Porphyry dike crosses hornfels ridge	65.3189	-149.9408
96RN208B	Diabase/basalt	65.4526	-150.0465
96RN209	Rampart gabbro	65.4548	-150.0659
96RN212	Gabbro/diorite Idaho gulch	65.0806	-150.9183
96RN231	Tertiary rhyolite	65.4814	-150.2034
96RN241A	Yukon rapids granite	65.3344	-151.0661
96RN242	Yukon rapids granite	65.3357	-151.0572
96RN243A	Yukon rapids granite	65.3419	-151.0856
96RN244A	Raven Creek Ridge Granite	65.5186	-149.5883
96RN244B	Raven Creek Ridge Granite	65.5186	-149.5883
96RN250	Tertiary basalt	65.4786	-150.1423
96RN253	Rampart - diabase	65.4837	-150.1541
96SL016	Syenite	65.2846	-150.0388
96SL029	Syenite	65.2828	-150.0251
96SL039A	Phyllite	65.3381	-150.0322
96SL039B	Gabbro	65.3381	-150.0322
96SL119	Limestone	65.3830	-150.0515
96SL142	Gabbro N of Kaltag	65.3683	-150.3027
96SL146	Gabbro or diabase S of Ruby Cr & just N of Kaltag	65.3797	-150.2399
96SL161	Gabbro N of Kaltag	65.3700	-150.2625
96SL203	Rampart volcs - dacite?	65.4273	-150.1198

Table 2. Major Oxide Analyses - Rampart Mining District
Tanana B-1 Quadrangle

Oxide or Item		SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	Total	Cr2O3
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	GRAV		ICP
Units		PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT
Lower Lim		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.03	0.05	0.01	0.01
Upper Lim		100	100	100	100	100	100	100	100	100	100	100	100	100
	Analyst													
Station ID														
96BT259	B-C	48.09	2.09	14.02	12.03	0.20	7.46	10.11	1.74	0.11	0.21	3.04	99.13	0.02
96BT271	RN-UAF	58.60	0.85	18.63	6.72	0.28	4.80	1.84	3.58	3.73	0.15		97.16	
96BT273B	B-C	44.55	3.02	12.53	19.22	0.22	6.51	9.15	2.24	0.49	0.16	2.10	100.20	<0.01
96BT281	B-C	48.88	1.69	16.46	11.13	0.16	7.23	9.70	2.52	0.56	0.23	3.89	100.46	0.03
96BT293	B-C	48.90	2.09	13.85	12.91	0.18	6.78	9.75	2.30	0.40	0.16	2.81	100.15	0.02
96BT294A	B-C	47.49	1.45	14.51	11.18	0.19	8.28	11.40	2.03	0.24	0.15	2.67	99.65	0.05
96BT294BGN	RN-UAF	59.00	0.80	14.10	7.02	0.09	3.46	12.68	0.18	0.01	0.07		97.38	
96BT298B	B-C	63.28	0.80	14.88	7.80	0.08	0.65	2.89	3.67	4.08	0.19	2.00	100.32	<0.01
96BT306	B-C	48.77	2.60	14.88	12.93	0.21	6.06	9.73	2.21	0.79	0.40	1.74	100.34	0.02
96BT328	B-C	49.45	1.59	13.27	11.40	0.23	8.97	8.80	2.43	0.28	0.17	3.65	100.51	0.06
96BT330G	RN-UAF	46.20	1.48	13.83	12.30	0.23	8.95	10.41	3.43	0.11	0.12		97.05	
96JD014D	RN-UAF	58.60	0.91	18.37	9.05	0.12	3.52	1.56	3.84	2.51	0.15		98.63	
96KC024	B-C	79.47	0.43	9.28	3.52	0.30	1.97	0.16	0.21	1.51	0.07	2.28	99.22	0.01
96KC030	B-C	46.46	2.12	14.45	14.21	0.21	6.48	8.65	3.07	0.58	0.21	2.31	98.76	<0.01
96KC037	B-C	58.15	1.04	16.77	8.07	0.11	2.90	3.06	5.45	0.70	0.22	2.58	99.05	<0.01
96KC068	B-C	49.18	2.04	14.88	11.80	0.14	7.81	1.89	3.59	<0.05	0.27	5.99	97.70	0.12
96KC074	B-C	64.46	0.86	14.96	7.37	0.10	2.35	2.99	3.66	1.18	0.18	2.48	100.59	<0.01
96KC080A	B-C	60.28	0.75	16.25	10.72	0.12	2.36	0.18	<0.01	2.96	0.16	3.70	97.49	0.01
96KC130	B-C	92.85	0.21	3.49	1.03	0.01	0.09	0.01	0.13	0.80	0.04	0.72	99.41	0.02
96KC135	B-C	49.94	3.28	17.22	15.48	0.23	1.84	1.53	5.29	2.14	0.98	1.89	99.83	<0.01
96KC146B	B-C	44.52	2.43	17.29	11.78	0.24	7.82	3.56	5.05	<0.05	0.41	5.43	98.33	<0.01
96KC149A	B-C	60.55	2.26	13.44	10.89	0.24	3.01	0.58	<0.01	3.07	0.29	3.91	98.27	0.03
96KC149B	B-C	34.54	1.28	11.08	10.10	0.23	5.52	17.46	2.41	<0.05	0.18	16.26	99.17	0.11
96KC149F	B-C	42.42	2.47	16.67	13.39	0.20	6.46	5.01	4.17	<0.05	0.43	6.94	98.18	<0.01
96KC157	B-C	22.84	0.35	7.63	3.07	0.15	13.53	21.89	<0.01	2.55	0.07	26.67	98.74	<0.01
96KC158	B-C	47.33	1.60	13.59	11.30	0.19	7.42	7.20	3.07	0.64	0.15	4.81	97.32	0.03
96KC165	B-C	45.32	2.96	16.42	22.87	0.03	1.76	2.38	3.55	0.32	1.82	3.21	100.64	<0.01
96KC171	B-C	48.51	1.41	14.45	11.95	0.19	7.88	9.20	3.30	0.23	0.12	2.80	100.03	<0.01
96KC185	B-C	48.89	0.96	15.86	8.86	0.15	7.75	10.43	2.34	0.77	0.12	3.20	99.33	0.01
96KC187	B-C	42.08	2.94	11.39	21.51	0.20	6.99	8.76	1.02	0.43	0.13	1.84	98.29	<0.01
96KC188	B-C	25.92	2.53	7.35	9.77	0.14	2.53	25.52	0.80	1.84	0.40	21.61	98.44	0.03
96KC191	B-C	45.83	3.70	12.06	11.68	0.16	8.34	10.16	1.86	0.88	0.53	3.92	99.15	0.04
96KC192B	B-C	55.90	2.03	14.48	9.15	0.09	2.94	3.79	3.51	2.92	0.52	5.34	100.68	<0.01
96KC192E	B-C	52.95	1.97	14.48	9.49	0.15	2.10	6.79	2.24	2.22	0.76	5.09	98.21	<0.01
96KC192r	RN-UAF	74.90	0.12	14.44	1.72	0.71	0.03	3.09	2.85	1.18	0.00		99.03	
96KC194B	B-C	54.50	0.31	6.37	5.33	0.21	4.01	9.97	1.60	1.19	0.09	14.98	98.56	<0.01
96KC204	B-C	32.45	1.38	24.88	17.84	0.32	6.88	9.04	<0.01	1.47	0.27	5.65	100.16	<0.01
96KC210	B-C	45.33	2.34	12.68	11.71	0.17	6.19	8.14	1.81	0.07	0.28	9.96	98.67	0.02
96KC212	B-C	48.47	2.02	13.68	13.37	0.20	7.15	10.12	2.41	0.06	0.24	2.21	99.93	<0.01
96KC222	RN-UAF	77.50	0.13	11.90	1.67	0.51	0.07	2.50	0.80	2.96	0.01		98.05	
96KC223	B-C	46.29	1.92	15.70	11.38	0.23	4.95	10.70	2.48	0.83	0.30	4.30	98.90	0.02
96KC227	B-C	50.44	1.88	14.03	12.28	0.18	5.82	9.62	2.42	0.49	0.22	2.13	99.48	<0.01
96KC227	B-C	49.61	1.99	13.92	12.50	0.18	5.79	8.94	2.07	0.43	0.20	2.50	98.11	<0.01
96KC234A	B-C	38.95	2.81	12.88	19.81	0.18	6.10	10.65	0.92	0.26	0.12	5.16	97.85	<0.01
96KC235	B-C	47.38	2.42	12.94	15.88	0.17	5.52	9.47	1.89	0.41	0.16	3.50	99.71	<0.01
96KC236	B-C	96.54	0.03	0.87	1.14	<0.01	0.25	0.03	<0.01	0.08	0.04	0.50	99.47	<0.01
96KC239	B-C	46.14	1.69	14.84	12.77	0.21	5.34	11.02	1.50	1.02	0.24	2.88	97.63	<0.01
96RN016	B-C	73.86	0.20	14.30	1.55	0.03	0.38	1.02	3.11	5.61	0.06	0.64	100.77	0.02
96RN022	B-C	46.84	0.93	13.80	11.38	0.21	10.00	12.72	1.00	0.89	0.39	1.41	99.61	0.05
96RN030	B-C	96.26	0.19	1.51	1.35	<0.01	0.11	0.07	<0.01	0.33	0.07	0.48	100.41	0.04
96RN079	B-C	68.89	0.29	15.12	2.82	0.05	1.30	2.23	3.06	5.99	0.10	0.44	100.31	0.02
96RN080	B-C	68.66	0.32	15.66	2.67	0.05	0.73	1.20	3.70	5.52	0.10	1.64	100.26	0.03

Table 2. Major Oxide Analyses - Rampart Mining District
Tanana B-1 Quadrangle

Oxide or Item		SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	Total	Cr2O3
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	GRAV		ICP
Units		PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT	PCT
Lower Lim		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.03	0.05	0.01	0.01
Upper Lim		100	100	100	100	100	100	100	100	100	100	100	100	100
	Analyst													
Station ID														
96RN085A	B-C	57.59	0.75	15.05	6.89	0.12	4.39	5.51	2.22	6.20	0.33	0.53	99.61	0.03
96RN102B	B-C	49.68	1.62	13.59	11.78	0.19	8.23	9.86	2.18	0.44	0.18	2.40	100.21	0.05
96RN103	B-C	49.32	1.02	15.71	9.04	0.15	8.71	12.18	1.92	0.58	0.07	2.21	100.93	0.02
96RN108	B-C	55.45	1.52	16.27	8.74	0.18	3.44	6.14	3.57	2.68	0.43	1.89	100.30	<0.01
96RN110B	B-C	48.60	1.03	13.55	11.38	0.18	8.04	10.88	1.90	1.67	0.13	2.14	99.53	0.03
96RN110C	B-C	56.12	1.19	16.30	7.88	0.15	5.04	6.37	3.12	2.42	0.15	1.41	100.17	0.03
96RN114C	B-C	54.36	1.83	15.81	10.66	0.21	4.23	6.53	2.46	1.84	0.34	2.02	100.30	0.01
96RN129	B-C	54.32	0.87	14.22	11.33	0.20	8.28	6.97	3.33	0.23	0.10	0.99	100.85	0.02
96RN131	B-C	47.87	1.77	13.58	10.98	0.17	6.30	6.20	2.84	0.26	0.19	8.56	98.76	0.04
96RN147	B-C	78.39	0.10	11.06	1.24	0.02	0.11	0.23	1.81	6.56	<0.03	0.68	100.22	0.03
96RN148A	B-C	42.76	2.48	8.80	11.33	0.19	10.28	14.62	0.63	0.28	0.27	8.37	100.14	0.13
96RN149A	B-C	66.67	0.49	14.15	3.11	0.05	0.79	1.86	4.39	1.77	0.14	6.99	100.41	<0.01
96RN149B	B-C	73.29	0.39	13.14	2.31	0.02	0.18	1.25	2.88	5.62	0.11	0.48	99.70	0.03
96RN150	B-C	45.53	3.43	16.07	13.84	0.22	5.17	7.23	3.30	0.17	0.32	4.32	99.61	0.02
96RN151	B-C	87.14	0.24	3.88	2.59	0.03	0.78	1.46	0.55	0.42	0.05	0.87	98.03	0.03
96RN155	B-C	60.83	0.70	12.16	8.17	0.14	3.71	10.92	0.48	1.63	0.18	1.93	100.86	<0.01
96RN167	B-C	64.59	0.53	15.12	6.13	0.15	0.16	1.05	4.45	5.55	0.12	1.32	99.17	<0.01
96RN175	B-C	59.33	0.76	15.46	7.12	0.13	3.65	4.83	1.94	3.32	0.43	1.37	98.37	0.02
96RN184	B-C	56.66	0.71	14.32	6.44	0.12	4.03	5.35	2.51	5.72	0.37	0.83	97.08	0.02
96RN186	B-C	53.23	1.91	13.85	11.67	0.18	3.66	6.30	2.87	0.55	0.31	4.88	99.41	<0.01
96RN193	B-C	56.25	0.69	14.19	6.74	0.12	5.20	6.23	2.50	4.72	0.41	0.77	97.83	0.03
96RN200	B-C	56.35	0.73	14.52	7.43	0.13	5.16	6.73	2.33	5.09	0.43	0.29	99.24	0.04
96RN201	B-C	65.20	0.40	16.16	3.91	0.11	1.26	2.58	3.84	5.06	0.19	1.82	100.35	0.02
96RN208B	B-C	50.73	1.79	14.72	11.59	0.18	6.23	8.40	1.96	1.06	0.18	2.59	99.42	<0.01
96RN209	B-C	61.89	0.80	13.00	7.55	0.10	4.16	6.43	2.74	0.96	0.10	2.27	99.86	0.05
96RN212	B-C	49.18	0.69	15.30	11.90	0.18	8.82	10.90	3.31	0.15	0.09	1.55	100.08	0.01
96RN231	B-C	79.92	0.10	9.83	0.80	<0.01	0.13	0.55	2.49	4.27	<0.03	1.54	99.24	0.02
96RN241A	B-C	68.56	0.52	14.88	3.42	0.05	1.14	2.47	3.48	4.00	0.19	0.49	99.23	0.02
96RN242	B-C	67.21	0.49	15.18	3.32	0.05	1.03	2.53	3.18	3.98	0.20	0.69	97.88	0.02
96RN243A	B-C	74.03	0.24	13.37	1.75	0.03	0.49	1.40	3.16	4.82	0.10	0.54	99.95	0.03
96RN244A	B-C	74.72	<0.01	14.53	0.75	0.01	0.04	0.52	6.01	1.39	<0.03	0.86	98.84	<0.01
96RN244B	B-C	73.43	<0.01	15.08	0.68	0.01	0.04	0.50	5.17	3.53	0.07	0.59	99.13	0.03
96RN250	B-C	54.22	1.95	14.45	10.63	0.17	2.96	5.12	2.55	2.59	0.70	3.69	99.05	<0.01
96RN253	B-C	47.87	1.57	14.34	12.51	0.18	6.80	10.95	1.56	0.30	0.15	1.51	97.75	0.02
96SL016	B-C	65.71	0.39	15.24	4.01	0.07	1.83	3.02	3.23	5.79	0.17	0.39	99.87	0.02
96SL029	B-C	54.41	0.72	12.78	7.69	0.16	5.03	8.38	1.98	6.50	0.71	1.05	99.42	0.02
96SL039A	RN-UAF	68.10	0.37	11.75	4.20	0.08	3.07	0.31	5.81	0.01	0.04		94.83	
96SL039B	B-C	48.60	1.78	13.80	12.59	0.20	5.64	5.86	4.98	0.19	0.21	4.10	97.95	<0.01
96SL119	RN-UAF	8.80	0.02	0.15	0.11	0.49	0.00	68.10	0.17	0.11	0.01		77.96	
96SL142	B-C	49.04	2.87	12.48	16.00	0.25	3.50	7.54	1.82	0.43	1.13	3.18	98.24	<0.01
96SL146	B-C	49.79	2.23	14.75	13.26	0.21	4.97	7.14	3.54	0.57	0.20	2.10	98.77	<0.01
96SL161	B-C	50.20	1.67	12.81	12.12	0.18	5.73	9.85	1.32	0.20	0.21	3.57	97.85	<0.01
96SL203	B-C	70.17	0.82	11.68	5.13	0.07	2.13	0.89	0.91	1.78	0.17	3.94	97.70	0.02

Table 2. Major Oxide Analyses - Rampart Mining District
Tanana 8-1 Quadrangle

Oxide or Item	LOI 1	LOI 2	LOI 3	BA	CE	NB	RB	SR	Y	ZR
Method										
Units	GM	GM	GM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
Lower Lim	1E-04	1E-04	1E-04							
Upper Lim	0	0	0							
Station ID										
96BT259	-9	-9	-9							
96BT271				1755	24		89	360	23	149
96BT273B	-9	-9	-9							
96BT281	-9	-9	-9							
96BT293	-9	-9	-9							
96BT294A	-9	-9	-9							
96BT294BGN				5	30		0	346	12	52
96BT298B	-9	-9	-9							
96BT306	-9	-9	-9							
96BT328	-9	-9	-9							
96BT330G				461	32		2	299	26	88
96JD014D				426	23	6	40	143	23	115
96KC024	-9	-9	-9							
96KC030	-9	-9	-9							
96KC037	-9	-9	-9							
96KC068	-9	-9	-9							
96KC074	-9	-9	-9							
96KC080A	-9	-9	-9							
96KC130	-9	-9	-9							
96KC135	-9	-9	-9							
96KC146B	-9	-9	-9							
96KC149A	-9	-9	-9							
96KC149B	-9	-9	-9							
96KC149F	-9	-9	-9							
96KC157	-9	-9	-9							
96KC158	-9	-9	-9							
96KC165	-9	-9	-9							
96KC171	-9	-9	-9							
96KC185	-9	-9	-9							
96KC187	-9	-9	-9							
96KC188	-9	-9	-9							
96KC191	-9	-9	-9							
96KC192B	-9	-9	-9							
96KC192E	-9	-9	-9							
96KC192r				1396	115	23	96	1118	37	180
96KC194B	-9	-9	-9							
96KC204	-9	-9	-9							
96KC210	-9	-9	-9							
96KC212	-9	-9	-9							
96KC222				185	130	16	175	77	88	183
96KC223	-9	-9	-9							
96KC227	-9	-9	-9							
96KC227	-9	-9	-9							
96KC234A	-9	-9	-9							
96KC235	-9	-9	-9							
96KC236	-9	-9	-9							
96KC239	-9	-9	-9							
96RN016	-9	-9	-9							
96RN022	-9	-9	-9							
96RN030	-9	-9	-9							
96RN079	-9	-9	-9							
96RN080	-9	-9	-9							

Table 2. Major Oxide Analyses - Rampart Mining District
Tanana B-1 Quadrangle

Oxide or Item	LOI 1	LOI 2	LOI 3	BA	CE	NB	RB	SR	Y	ZR
Method										
Units	GM	GM	GM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
Lower Lim	1E-04	1E-04	1E-04							
Upper Lim	0	0	0							
Station ID										
96RN085A	-9	-9	-9							
96RN102B	-9	-9	-9							
96RN103	-9	-9	-9							
96RN108	-9	-9	-9							
96RN110B	-9	-9	-9							
96RN110C	-9	-9	-9							
96RN114C	-9	-9	-9							
96RN129	-9	-9	-9							
96RN131	-9	-9	-9							
96RN147	-9	-9	-9							
96RN148A	-9	-9	-9							
96RN149A	-9	-9	-9							
96RN149B	-9	-9	-9							
96RN150	-9	-9	-9							
96RN151	-9	-9	-9							
96RN155	-9	-9	-9							
96RN167	-9	-9	-9							
96RN175	-9	-9	-9							
96RN184	-9	-9	-9							
96RN186	-9	-9	-9							
96RN193	-9	-9	-9							
96RN200	-9	-9	-9							
96RN201	-9	-9	-9							
96RN208B	-9	-9	-9							
96RN209	-9	-9	-9							
96RN212	-9	-9	-9							
96RN231	-9	-9	-9							
96RN241A	-9	-9	-9							
96RN242	-9	-9	-9							
96RN243A	-9	-9	-9							
96RN244A	-9	-9	-9							
96RN244B	-9	-9	-9							
96RN250	-9	-9	-9							
96RN253	-9	-9	-9							
96SL016	-9	-9	-9							
96SL029	-9	-9	-9							
96SL039A				29	12		1	23	13	81
96SL039B	-9	-9	-9							
96SL119				48	5		3	317	0	10
96SL142	-9	-9	-9							
96SL146	-9	-9	-9							
96SL161	-9	-9	-9							
96SL203	-9	-9	-9							

All sample id's are preceeded by 96



Table 3. Thin Sections available from Rampart Mining District
Tanana B-1 Quadrangle

ID	Lat	Long	Field Description
96BT263	65.4688	-150.2912	Greenish altered basaltic rock
96BT273B	65.3794	-150.3827	Dark green grey fine grained to aphanitic pyroxene gabbro
96BT281	65.3934	-150.4379	Dark green-grey aphanitic to fine grained basalt
96BT287	65.4309	-150.2812	Rampart basalt
96BT289	65.4353	-150.3021	Medium green-grey fine grained recrystallized andesite or basalt
96BT293	65.4629	-150.3361	Medium green/grey porphyritic with aphanitic feldspar - intrusion of intermediate composition
96BT298B	65.4894	-150.0000	Dark green/grey aphanitic pyroxene basalt
96BT317	65.3847	-150.4778	Olivine basalt - fresh, massive, dark to medium grey
96BT318	65.3882	-150.4870	Columnar basalt
96BT324A	65.3830	-150.4152	Altered sediments and diabase dike
96BT326	65.3869	-150.4231	Siliceous sediments at base of Rampart volcanics
96JD001	65.2853	-150.0386	Homfelsed Cretaceous rocks
96JD014A	65.3059	-150.2997	Siltite or meta-chert
96JD014B	65.3059	-150.2997	Sheared metavolc
96JD015A	65.3042	-150.2945	Sheared greenstone
96JD017	65.3023	-150.2984	Sheared greenstone
96JD033A	65.2684	-150.3072	Siliceous mylonite
96JD033B	65.2684	-150.3072	Mylonitic chert
96JD034	65.2635	-150.3252	Siliceous mylonite
96JD045	65.2740	-150.2787	Mylonitic siliceous argillite
96JD086	65.3321	-150.2001	Meta volcanics
96JD097	65.3335	-150.2536	Greenstone
96JD114	65.2883	-150.3339	Cataclastic siliceous rock
96JD116	65.2523	-150.3846	Grey and white siliceous argillite, cherty argillite, and siliceous mylonite
96JD117	65.2504	-150.3823	Meta volcanic
96JD121	65.2514	-150.3670	Siliceous mylonite-grey white "chert"
96JD124	65.2605	-150.3886	Mylonitic quartzite
96JD126A	65.2649	-150.4288	Limestone
96JD127A	65.2649	-150.4463	Phyllitic/mylonitic argillite
96JD127B	65.2649	-150.4463	Quartzite
96JD128	65.2821	-150.3933	Siliceous argillaceous, mylonitic siltstone/sandstone
96JD129A	65.2862	-150.4065	Siliceous argillite
96JD129B	65.2862	-150.4065	Quartzite
96JD131	65.2911	-150.4121	Greenstone ?
96JD133A	65.2943	-150.4161	Quartzite
96JD133B	65.2988	-150.4976	Quartz wacke
96JD135A	65.2821	-150.3487	Light grey finely granulated quartzite
96JD135B	65.2821	-150.3487	Light green granulated quartzite
96JD135C	65.2821	-150.3487	Darker green granulated quartzite - volcanic component?
96JD136	65.3186	-150.2684	Meta volcanic
96JD137	65.3201	-150.2731	Quartzite
96JD143A	65.3352	-150.2918	Tan interbeds in argillite
96JD143B	65.3347	-150.2904	Tan interbeds in argillite
96JD144	65.3368	-150.2963	Calcareous sandstone or volcanoclastic?
96JD145	65.3376	-150.2975	Grit
96JD146	65.3403	-150.2918	Grit
96JD147	65.3431	-150.2902	Grit
96JD151	65.3494	-150.2970	Calcareous sandstone
96JD152	65.3502	-150.3040	Grit
96JD153	65.3503	-150.3159	Grit

Table 3. Thin Sections available from Rampart Mining District
Tanana B-1 Quadrangle

ID	Lat	Long	Field Description
96BT283	65.4688	-150.2912	Greenish altered basaltic rock
96JD154	65.3542	-150.3207	Rampart leuco gabbro
96JD157	65.2975	-150.3109	Tan weathering - gray limestone
96JD161	65.2881	-150.2944	Gabbro dike
96JD168	65.3524	-150.1825	Grit
96JD172A	65.2914	-150.2627	Mylonitic greenstone
96JD172B	65.2914	-150.2627	Green mylonitic metavolcanics or greenstone
96JD175A	65.4029	-149.9967	Sheared greenish possible meta volcanic in contact with dolostone
96JD175B	65.4029	-149.9967	Medium gray to black chert
96JD175C	65.4029	-149.9967	Quartzite
96JD178	65.4046	-150.0167	Medium gray mylonitic siliceous to cherty argillite
96JD179A	65.4056	-150.0186	Greenstone
96JD179B	65.4056	-150.0186	Mylonitic argillite
96JD179C	65.4056	-150.0186	Quartzite
96JD180	65.4060	-150.0203	Black slatey argillite
96JD197	65.2417	-150.2964	Slatey mylonitic dark argillite and gritty sandstone
96KC014A	65.2851	-150.1416	Mylonitic meta-volcanics
96KC014B	65.2851	-150.1416	Chert
96KC014C	65.2851	-150.1416	Mylon quartzite just above Amy Ck dolostone
96KC015	65.2797	-150.1381	Mylonitic siltite
96KC016	65.2839	-150.1296	Chert
96KC017	65.2842	-150.1282	Black argillite
96KC021B	65.2754	-150.1121	Fine grained gabbro - Cretaceous? dike
96KC030	65.2593	-150.2998	Grainstone dike in dolostone
96KC056	65.3681	-150.3520	Garnet, biotite, feldspathic, muscovite, quartz schist; "Ruby terrane"
96KC068	65.3203	-150.3542	Mottled light-dark green chlorite schist--derived from mafic volcanic(?)
96KC074	65.3167	-150.3692	Gray-green fine-grained volcanic(?) clastic
96KC075	65.3176	-150.3712	Light tan weathering, light gray marble with 1 cm dark gray carbonate porphyroblasts?
96KC080A	65.3223	-150.3858	Chlorite schist + serpentine? alteration
96KC083	65.3287	-150.3855	Light gray-green volcanic(?) clastic
96KC094	65.2714	-150.3428	White, very fine sugary textured quartzite - an altered aplite or rhyolite?
96KC096	65.2647	-150.3540	Manganese veinlets throughout white quartz veins in tan, sugary-textured quartzite - rubble
96KC101	65.2559	-150.3492	Light green, dense (baritic?), calcareous greenstone, Manganese on fractures; serpentine altered phyllitic tuff
96KC103	65.3329	-150.2041	Chrysotile? alteration in gray siliceous cherty rock
96KC110	65.3415	-150.1800	Crenulated, tan to gray-green mottled calcareous phyllitic tuff with ilmenite; bizarre texture
96KC116	65.2504	-150.3823	Olive green phyllite
96KC130	65.2853	-150.4076	White fine-grained, quartz-rich rock with white mica & pyrite cubes; quartzite or altered felsic meta-igneous?
96KC146	65.3208	-150.2781	Dark green, aphanitic, 'greenstone', associated with orange-weathering limestone
96KC149B	65.3284	-150.2829	Light green layer in schistose greenstone
96KC152	65.3358	-150.2932	Calcareous sandstone
96KC156	65.3429	-150.3777	Medium grained, light tan, phlogopite (?) carbonate rock. Altered Ruby marble near gabbro dike
96KC171	65.3005	-150.2337	Orange-brown weathering, dark green, massive to semischistose fine to medium grained mafic meta-volcanic
96KC187	65.3422	-150.4310	Volcanic-clastic, Rampart Group or Tertiary?
96KC194	65.3729	-150.2083	Calcareous sandstone (meta-volcanic?)
96KC202	65.3441	-150.3874	Coarse grained quartz mica schist with small garnets
96KC204	65.1076	-150.8667	Float - altered dark green ultramafic? dike near reported Carbonatite 1000' elev Harker Cr Rd.
96KC205	65.3883	-150.1755	Calcareous sandstone - volcanic component?
96KC236	65.2633	-150.3668	Light tan, sugary-textured quartzite at Avnet Mn prospect; may have been an aplite or rhyolite??
96RN080	65.2764	-150.0240	Altered Cretaceous granite
96RN128	65.4377	-150.1274	Ruby schist + amphibolite + marble

Table 3. Thin Sections available from Rampart Mining District
Tanana B-1 Quadrangle

ID	Lat	Long	Field Description
96BT263	65.4688	-150.2912	Greenish altered basaltic rock
96RN163	65.3990	-150.2438	Ruby garnet biotite quartz schist
96RN186	65.3687	-150.2991	Gabbro
96RN252	65.4827	-150.1508	Gabbro/diorite
96RR001A	65.2851	-150.1424	Meta-sandstone/shale sequence
96RR001C	65.2851	-150.1424	Sandstone conglomerate
96RR001D	65.2851	-150.1424	Limestone
96RR002	65.2795	-150.1385	Argillite
96RR010A	65.4458	-148.2400	Wilber Creek shale
96RR015	65.2828	-150.1328	Light green limonite pitted tuff?
96RR016	65.2844	-150.1291	Black, very dark grey argillaceous sediments
96RR017	65.2785	-150.1137	Medium grey aphanitic tuff, local pyrite
96RR021A	65.2653	-150.1467	Light green aphanitic tuff?
96RR022	65.2601	-150.1484	Sandstone
96RR022	65.2894	-150.1721	Shale
96RR024	65.3078	-150.3032	Volcanic-clastics
96RR025B	65.3021	-150.2932	Limestone with greenstone, not Amy Ck
96RR026A	65.2950	-150.2707	Chlorite rich argillite
96RR026B	65.2950	-150.2707	Dark grey to black aphanitic siliceous argillite
96RR027B	65.2596	-150.2194	Black argillite to slate
96RR030A	65.2740	-150.1975	Sandstone with siliceous argillite section
96RR031C	65.2766	-150.1853	Limestone in siliceous argillite section
96RR032C	65.2811	-150.1773	Conglomeritic grit
96RR032D	65.2811	-150.1773	Medium to dark grey sandstone
96RR035B	65.2948	-150.1659	Light green tuff
96RR036B	65.3004	-150.1463	Medium grey limestone
96RR039A	65.2546	-150.1818	Sandstone - looks Cretaceous
96RR040	65.3019	-150.0695	Sandstone
96RR041C	65.2997	-150.0882	Light grey quartzite
96RR046B	65.3102	-150.1081	Argillite
96RR047A	65.3137	-150.1119	Quartz & chert
96RR050A	65.3357	-150.0209	Sandstone
96RR051C	65.3380	-150.0325	Sandstone
96RR052	65.3393	-150.0439	Sandstone
96RR054	65.3328	-150.0794	Carbonate rich igneous rock
96RR055B	65.3246	-150.1351	Calcareous sandstone
96RR056B	65.3295	-149.9969	Altered rock near igneous dike in sandstone
96RR056C	65.3295	-149.9969	Bioturbated? sandstone
96RR059A	65.4747	-150.1705	Dark grey-black basalt
96RR060A	65.4343	-150.3859	Volcanics Tr?
96RR061A	65.3323	-150.0186	Quartzite/sandstone
96RR062A	65.3261	-150.0227	Felsic igneous dike
96RR063A	65.3305	-150.1101	Chert clasts
96RR064A	65.3350	-150.1055	Brownish tuff
96RR066A	65.3288	-149.8354	Wolverine quartzite
96RR067A	65.3025	-150.0541	Sandstone
96RR067F	65.3025	-150.0541	Calcareous sandstone
96RR068A	65.3078	-150.0520	Sandstone
96RR069A	65.3054	-150.0823	Sandstone - hornfelsed?
96RR072A	65.2938	-150.0005	Light to medium grey hornfels

Table 3. Thin Sections available from Rampart Mining District
Tanana 8-1 Quadrangle

ID	Lat	Long	Field Description
96BT263	65.4688	-150.2912	Greenish altered basaltic rock
96RR072B	65.2938	-150.0005	Hornfelsed sandstone
96RR074A	65.3183	-150.1567	Siliceous argillite
96RR075B	65.3568	-150.0828	Medium grained sandstone
96RR076B	65.2546	-150.1818	Shale/slate
96RR086A	65.4526	-150.0465	Tuffaceous rocks
96RR086B	65.4526	-150.0465	Gabbro or basalt
96RR086C	65.4526	-150.0465	Gabbro or basalt
96RR088A	65.2365	-150.1889	Calcareous sandstone
96SL006	65.2752	-150.1098	Andesite or gabbro?
96SL016	65.2752	-150.1098	Syenite
96SL029	65.2828	-150.0251	Syenite
96SL031	65.2859	-150.0072	Monzonite
96SL039B	65.3381	-150.0322	Gabbro
96SL125	65.3607	-150.0320	Silty sandstone
96SL126	65.3949	-150.0770	Light greenish-grey calcareous rock with mica & biotite
96SL129	65.4015	-150.0853	Greenish micaceous quartzite
96SL137	65.3660	-150.2283	Grit
96SL142	65.3683	-150.3027	Gabbro
96SL146	65.3797	-150.2399	Gabbro or diabase
96SL153A	65.3778	-150.3047	Schist with magnetite - susceptibility readings of 80
96SL154	65.3491	-150.2568	Calcareous sandstone
96SL161	65.3700	-150.2625	Gabbro
96SL180	65.4903	-149.9889	Rampart volcanics?
96SL203	65.4273	-150.1198	Volcanic with pyrite