BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	2001/2002
REPORT #:	PAP 01-6
NAME:	BARBARA WELSH

D. TECHNICAL REPORT

BRITISH COLUMBIA
Ministry of Energy and Mines
Energy and Minerals Division

- One technical report to be completed for each project area.
- **Refer to Program Regulations 15 to 17, page 6.**

SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

Information on this form is confidential for one year and is subject to the provisions of the *Freedom of Information Act*.

Name BARBARA WELSH Reference Number 01/02-P9

LOCATION/COMMODITIES

Project Area (as listed in Part A) FRANKLIN CAMP MINFILE No. if applicable 082ENE019

Location of Project Area NTS 82E/9W Lat 49°-36'-17" Long 118°-18'-51"

Description of Location and Access THE PROJECT AREA IS LOCATED NORTH AND EAST OF TENDERLOIN MTN. (FRANKLIN CAMP). ACCESS IS VIA LOGGING ROADS OFF THE BURRELL CREEK AND WORTHINGTON CREEK FOREST ACCESS ROADS

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)
WILLIAM WELSH – 35 YEARS EXPERIENCE IN THE MINING INDUSTRY

Main Commodities Searched For Ta, Ti, V, Pt, Pd, Cu, Ni, Cr

Known Mineral Occurrences in Project Area PINTO (Au-Ag-Cu) (MINFILE 082ENE019)

WORK PERFORMED

1. Conventional Prospecting (area) 4789 Ha
2. Geological Mapping (hectares/scale) 430 Ha
3. Geochemical (type and no. of samples) ROCK SAMPLING – 18 → PETROLOGY STUDY
4. Geophysical (type and line km)
5. Physical Work (type and amount)
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify) STREAM SEDIMENTS (HEAVY MINERAL)

FEEDBACK: comments and suggestions for Prospector Assistance Program

THIS PROSPECTING PROGRAM WAS SEVERELY HAMPERED BY THE FAILURE OF THE ASSAY COMPANY, ALS CHEMEX, TO PROVIDE TIMELY AND ACCURATE RESULTS. SAMPLES WERE SUBMITTED TO THE LAB ON [redacted] JULY 15, BUT RESULTS WERE NOT RETURNED UNTIL MID-SEPTEMBER. THE RESULTS WERE CONTRADICTED BY AN INDEPENDENT PETROLOGICAL STUDY BY GRABEN PETROGRAPHICS (C. WOLFSON, M.Sc., P.Geo.) AND EVEN THE CHEMIST AT CHEMEX ADMITTED THAT HE COULDN'T UNDERSTAND THE Fe RESULTS WHEN HE CHECKED THE REJECT PULPS FOR MAGNETITE. THE LAB: (1) ADMITTED THAT THEY MIXED UP THE SAMPLE NUMBERS (2) ADMITTED THEN DENIED THAT THEY DID NOT USE 4-ACID, TOTAL DIGESTION, WHICH WAS PAID FOR (3) REFUSED TO RE-RUN THE SAMPLES

WHAT CAN BE LEARNED FROM THIS IS THAT SOME EXPLORATIONISTS MAY NOT REALIZE THAT SUCH MISTAKES CAN BE MADE, AND MAY SIMPLY ACCEPT WHATEVER RESULTS THE LAB PROVIDES.

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS

- Those submitting a copy of an Assessment Report or a report of similar quality that covers all the key elements listed below are not required to fill out this section.
- Refer to Program Regulation 17D on page 6 for details before filling this section out (use extra pages if necessary)
- **Supporting data must be submitted with the following TECHNICAL REPORT or any report accepted in lieu of.**

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act.*

Name BARBARA WELSH Reference Number 01/02-P9

1. LOCATION OF PROJECT AREA [Outline clearly on accompanying maps of appropriate scale.]

THE AREAS PROSPECTED ARE LOCATED NORTH OF TENDERLOIN MTN IN THE FRANKLIN CAMP ON BURRELL CREEK, AND IN THE HILLS BETWEEN BURRELL CREEK AND LOWER ARROW LAKE. THESE AREAS WERE CHOSEN BASED ON STREAM SEDIMENT SAMPLES ANOMALOUS IN Ta, Fe, Ni, AND Cr, AND AEROMAGNETIC ANOMALIES THAT MAY REFLECT ROCKS RICH IN MAGNETITE.

2. PROGRAM OBJECTIVE [Include original exploration target.]

TO DISCOVER GREISEN AND PEGMATITE ZONES IN THE CORYELL SYENITE SIMILAR TO THE "CRESCENT" NbTaUThTiY OCCURRENCE (082FSW272) WHICH CONTAINS SIGNIFICANT CONCENTRATIONS OF RARE ELEMENTS, AND TO LOCATE POTENTIAL SKARN ZONES NEAR THE INTRUSIVE CONTACTS, SIMILAR TO THE "SAPPHO" CuAg Pt Au OCCURRENCE (082ESE147). BOTH OF THESE TARGETS ARE ASSOCIATED WITH POCKETS OF MAGNETITE.

3. PROSPECTING RESULTS [Describe areas prospected and significant outcrops/float encountered. Mineralization must be described in terms of specific minerals and how they occur. These details must be shown on accompanying map(s) of appropriate scale; prospecting traverses should be clearly marked.]

IN THE AREA EAST OF BURRELL CREEK, INITIAL STREAM SEDIMENT SAMPLING DETERMINED THAT THERE WAS A CORRELATION OF HIGH TANTALUM VALUES WITH A MARGINAL PHASE OF THE MIDDLE JURASSIC DIORITE INTRUSIONS, CONTAINING UP TO 30% MAGNETITE. ON THE RIDGE TOP EAST OF BURRELL CREEK, SEVERAL SMALL POCKETS OF MAGNETITE DIORITE WERE SAMPLED, BUT THESE DID NOT YIELD SIGNIFICANT VALUES OF Ta, Ti, OR V AS EXPECTED.

NEAR THE CONTACT OF THESE INTRUSIONS, EPIDOTE SKARN ZONES WERE OBSERVED, BUT THEY WERE NOT SIGNIFICANTLY MINERALIZED, ACCORDING TO THE ICP's.

PROSPECTING ON THE PINTO PROSPECT LOCATED A LARGE MINERALIZED ZONE IN DIORITE, WHICH CONTAINED ABOUT 1-2% DISSEMINATED Py, Po, AND Sph.

3. PROSPECTING RESULTS (continued)

SUMMARY OF PETROLOGY REPORT BY GRABEN PETROGRAPHIS OF PRINCE GEORGE, B.C. (I. K. WOLFSON, M.Sc., P. Geo):

SAMPLE No.	DESCRIPTION
FC-04	ALTERED GRANITE TO QUARTZ MONZONITE, CROSS-CUT BY PALE GREY TO WHITE QUARTZ VEINS CONTAINING MEDIUM GREEN CHLORITE ± SERICITE ALONG FRACTURES, COARSE-GR. PYRITE
FC-05	FINE TO COARSE-GRAINED HYPIDIOMORPHIC GRANULAR ROCK, COMPOSED OF INTERGROWN K-FELDSPAR LATHS WITH ACCESSORY FINE-MED. MAGNETITE AND RARE ALTERED PLAGIOCLASE
FC-07	MAGNETITE SYENITE, CONSISTING OF K-FELDSPAR AS INTER-GROWN FINE-MED GRAINED WHITE-PINKISH WHITE LATHS AND FINE-GRAINED MAGNETITE AND TRACE GREENISH-BLACK VITREOUS LATHS EXHIBITING A SPLINTERY FRACTURE, EITHER AMPHIBOLE OR PYROXENE
FC-08	MAGNETITE DIORITE, CONSISTING OF INTERGROWN HORNBLENDE LATHS, PLAGIOCLASE FELDSPAR, BIOTITE BOOKS WITH COMMON V. FINE-FINE GRAINED MAGNETITE AND TRACE AMOUNTS OF LIGHT BROWN TO BROWNISH-YELLOW WEDGE-SHAPED SPHENE CRYSTALS DISEMINATED THROUGHOUT.
FC-09	PLAGIOCLASE TRACHYTE/LATITE PORHYRY, CONSISTING OF FINE TO COARSE-GRAINED PLAGIOCLASE AND FINE-GR. BIOTITE DISPERSED THROUGHOUT A MICROCRYSTALLINE HYPIDIOMORPHIC-GRANULAR MATRIX OF K-FELDSPAR, BIOTITE, AND LESSER HORNBLENDE AND MAGNETITE
FC-15	DIORITE, COMPOSED OF INTERGROWN HORNBLENDE AND PLAGIOCLASE WITH COMMON ACCESSORY FINE-MEDIUM-GRAINED BIOTITE, SPHENE, AND APATITE, AS WELL AS QUARTZ AND MAGNETITE
FC-16	FINE-MED. GRAINED HYPIDIOMORPHIC GRANULAR GRANITE CONSISTING OF INTERGROWN K-FELDSPAR, QUARTZ, AND LESSER GRAINS OF PLAGIOCLASE WITH ACCESSORY FINE-MED. GR. BIOTITE
FC-17	FINE-MED GRAINED HYPIDIOMORPHIC GRANULAR GRANITE CONTAINING A 5 mm QUARTZ VEIN, BORDERED BY SPONGY, BOX-TEXTURED YELLOW OXIDES/HYDROXIDES
FC-18	FINE-COARSE GRAINED HYPIDIOMORPHIC SYENITE CONSISTING OF INTERGROWN K-FELDSPAR AND HORNBLENDE LATHS WITH ACCESSORY FINE-MED. GRAINED MAGNETITE AND SPHENE

D. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Regulations 15 to 17, page 6.**

SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

Information on this form is confidential for one year and is subject to the provisions of the *Freedom of Information Act*.

Name BARBARA WELSH Reference Number 01/02-P9

LOCATION/COMMODITIES

Project Area (as listed in Part A) BURNT BASIN MINFILE No. if applicable 082ESE091

Location of Project Area NTS 82E/1E Lat 49°-06'-21" Long 118°-08'-06"

Description of Location and Access THE PROSPECTING AREA IS LOCATED IN THE DRAINAGE BASIN OF SUTHERLAND CREEK, FROM THE ROAD THROUGH FIFE, NEAR CHRISTINA LAKE

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)
WILLIAM WELSH - 35 YEARS EXPERIENCE IN THE MINING INDUSTRY

Main Commodities Searched For Ta, Ti, V, Pt, Pd, Cu, Ni, Cr

Known Mineral Occurrences in Project Area CASTLE MOUNTAIN NICKEL

WORK PERFORMED

1. Conventional Prospecting (area) 1182 Ha
2. Geological Mapping (hectares/scale) 87 Ha
3. Geochemical (type and no. of samples) ROCK SAMPLES - 3 - PETROLOGY STUDY
4. Geophysical (type and line km)
5. Physical Work (type and amount)
6. Drilling (no. holes, size, depth in m, total m)
7. Other (specify) STREAM SEDIMENTS (HEAVY MINERAL)

FEEDBACK: comments and suggestions for Prospector Assistance Program (see previous report)

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS

- Those submitting a copy of an Assessment Report or a report of similar quality that covers all the key elements listed below are not required to fill out this section.
- Refer to Program Regulation 17D on page 6 for details before filling this section out (use extra pages if necessary)
- **Supporting data must be submitted with the following TECHNICAL REPORT or any report accepted in lieu of.**

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

Name BARBARA WELSH Reference Number 01/02-P9

1. **LOCATION OF PROJECT AREA** [Outline clearly on accompanying maps of appropriate scale.]
THE PROSPECTING AREA IS LOCATED PRINCIPALLY IN THE AREA EAST OF FIFE, ACCESSED BY THE SUTHERLAND CREEK FOREST ACCESS ROAD. THE SECOND AREA IS AROUND JOSH CREEK (BURNT BASIN) WHICH IS ACCESSED VIA A ROAD NEAR THE PAULSON BRIDGE.

2. **PROGRAM OBJECTIVE** [Include original exploration target.]
THE CASTLE MOUNTAIN NiCrFeMaCuPt OCCURRENCE IS HOSTED BY A SEPENTINITE BODY WHICH IS AN UPTHRUST SECTION OF AN OPHIOLITE. PREVIOUS MAPPING INDICATED THE POTENTIAL FOR THE DISCOVERY OF ADDITIONAL SUCH BODIES, AND STREAM SEDIMENTS ANOMALOUS IN Fe, Cr AND Ta POINT TO AN AREA NEAR THE DIVIDE BETWEEN THE COLUMBIA AND KETTLE RIVER DRAINAGES.

3. **PROSPECTING RESULTS** [Describe areas prospected and significant outcrops/float encountered. Mineralization must be described in terms of specific minerals and how they occur. These details must be shown on accompanying map(s) of appropriate scale; prospecting traverses should be clearly marked.]
OF THE THREE SAMPLES TAKEN FROM THE SUTHERLAND CREEK AREA, ONLY BB-02 SHOWED ANOMALOUS RESULTS (V = 297 ppm) WHICH IS CONFUSING BECAUSE IT WAS IDENTIFIED AS ARKOSE CONTAINING LITTLE OR NO HEAVY MINERALS.
BB-01 IS AN AUGEN GNEISS FOUND NEAR A CREEK WHICH CONTAINED ABUNDANT MAGNETITE.
BB-03, WHICH WAS SLIGHTLY ANOMALOUS IN CHROMIUM (114 ppm) WAS TAKEN FROM A MAGNETITE-RICH ZONE NEAR THE TOP OF SUTHERLAND CREEK. THIS ROCK, IDENTIFIED AS A QUARTZ DIORITE, IS LOCATED WITHIN A LARGE AREA PREVIOUSLY MAPPED AS CORYELL SYENITE. THEREFORE, THE GEOLOGY IS CONSIDERABLY MORE COMPLEX THAN PREVIOUSLY THOUGHT.

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS (continued)

3. PROSPECTING RESULTS (continued)

SUMMARY OF PETROLOGY REPORT

SAMPLE No.	DESCRIPTION
BB-01	PLAGIOCLASE AUGEN ORTHOGNEISS, CONSISTING OF PLANAR TO LENTICULAR AUGEN OF WHITE PLAGIOCLASE WHICH DEFINE A WEAK GNEISSOSE STRUCTURE. AGGREGATES OF INTERGROWN BIOTITE, APATITE AND RARE MAGNETITE BORDER THE FELDSPAR AUGEN. RARE SPHENE OCCURS AS VITREOUS AND TRANSPARENT ORANGE-YELLOW, F GRAINED SUBHEDRAL CRYSTALS WITHIN THE PLAGIOCLASE AGGREGATES CLOSE TO THE FERROMAGNESIAN MINERALS.
BB-02	ARKOSE, MASSIVE AND FINE-GRAINED CONSISTING OF FELDSPAR AND QUARTZ WITH ACCESSORY BIOTITE. IN PLACES THERE ARE RARE SURFACE COATINGS OF A MEDIUM BLUE-GREY METALLIC TARNISH.
BB-03	THE SAMPLE IS A FINE TO COARSE-GRAINED QUARTZ DIORITE CROSS-CUT BY A WHITE, FINE-GRAINED APLITIC QUARTZ-DIORITE DYKE AND A MEDIUM TO DARK GREEN MYLONITE.

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS (continued)

5. GEOPHYSICAL RESULTS [Specify the objective of the survey, the method used and the work done. Discuss the results and show the data on an accompanying map of appropriate scale. Any anomalous areas must be indicated on maps by the use of contouring, or some other suitable technique.]

5. OTHER RESULTS [**Drilling** - describe objective, type and amount of drilling done. Discuss results, including any significant intersections obtained. Indicate on a map of appropriate scale the drill-hole collar location, the angle of inclination and azimuth. Drill logs correlated with assay results must be included. **Physical Work** - describe the type and amount of physical work done and the reasons for doing it (where not self-evident). This includes lines/grids, trails, trenches, opencuts, undergound work, reclamation, staking of claims, etc. Discuss results where pertinent.]

Signature of Grantee Barbara Walsh Date Nov. 25 '01

Signature of person filling out Final Prospecting Report if other than grantee _____

MAP LEGEND

LAYERED ROCKS

CENOZOIC

EOCENE

EP **PENTICTON GROUP** calcalkaline transtensional volcanics; includes andesitge and dacite flows and tuffs; rhyolite tuff and minor welded tuff; **Marron Fm.**

PALEOZOIC

PERMIAN TO CARBONIFEROUS

CP_{MR} **ATTWOOD GROUP** **Mt. Roberts Fm.** argillite, sandstone, limestone, some sharpstone conglomerate, greenstone

PROTEROZOIC

PM **MONASHEE COMPLEX** pericratonic rocks consisting of amphibolite and gneiss with lesser quartzite and marble

INTRUSIV E ROCKS

CENOZOIC

EOCENE

mEc **CORYELL INTRUSIONS** biotite monzonite, syenite, pyroxenite ("Black Lead") and minor granite stocks and feederdykes to the Marron volcanics

MESOZOIC

CRETACEOUS

KTVg **OKANAGAN BATHOLITH** granodiorite and granite; includes the Teritary Ladybird Suite (to the east) and Valhalla intrusions

JURASSIC

mJp granodiorite, diorite and quartz diorite; includes some rocks previously mapped as Nelson Intrusions

GPS waypoint; if outcrop sampled, sample number designated by **FC-xx** or **BB-xx**

7.2 RGS stream sediment, anomalous in Tantalum

RGS stream sediment, anomalous in chromium, nickel, and iron

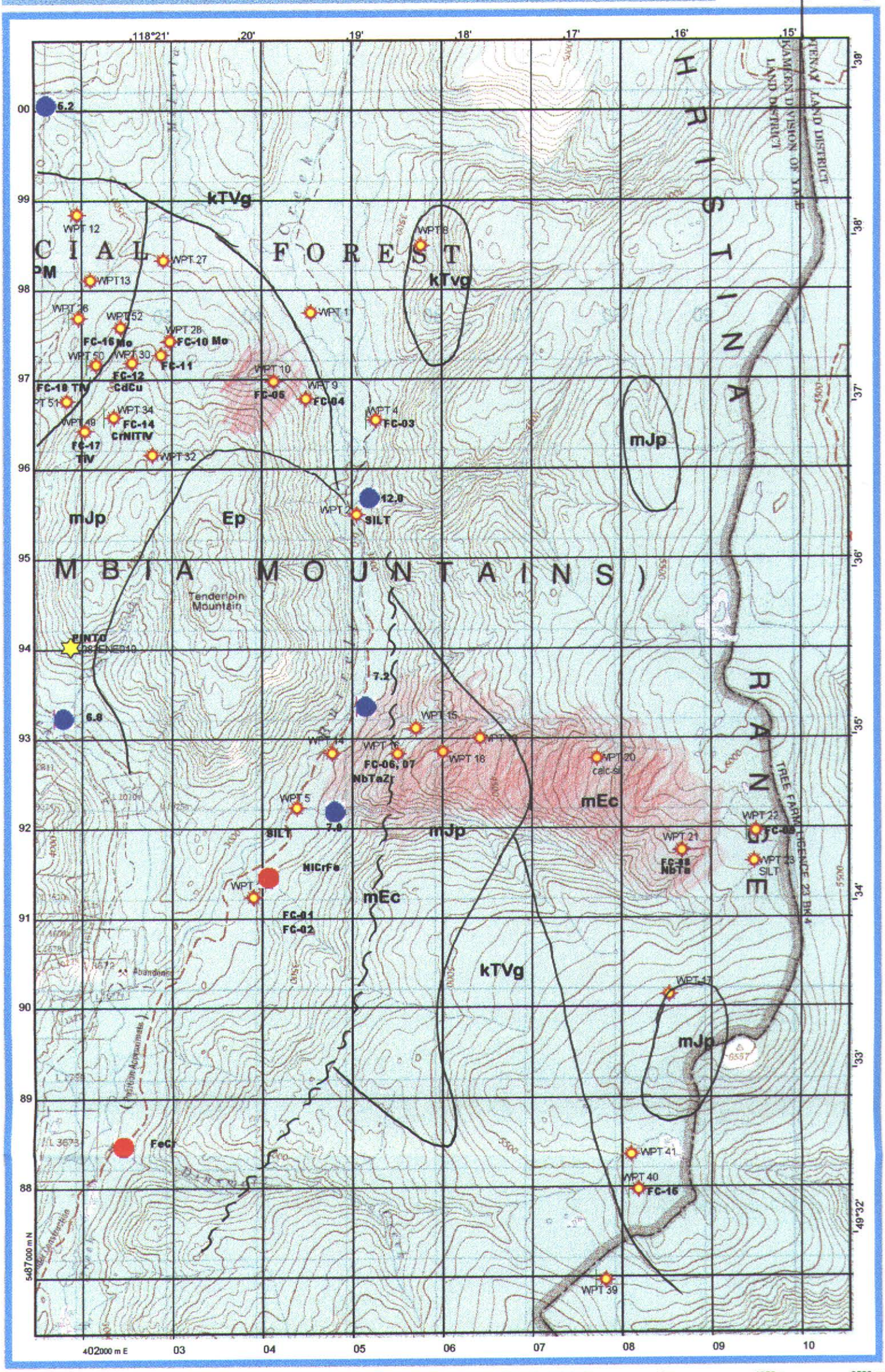
high EM anomaly, from regional geophysics

GPS Waypoints on Traverses (location of outcrop / sample sites)

Chemex Sample #	WPT	UTME	UTMN	Anomalous Elements	DESCRIPTION
	1	403881	5491003		FC-01, 02 -- fault contact of Harper Ranch seds(congl) and Coryell syenite
	2	405053	5495493		SILT -- stream v. rich in magnetite + Ta, pebbles approx. 50% mag-diroite
	3	405853	5504160		borrow pit -- magnetite-rich diorite (float) found, as in stream earlier
	4	405267	5496550		FC-03 -- greisen, v.magnetic, pyroxene lenses in syenite
	5	404385	5492232		SILT --abundant magnetite
	6	405521	5507313		o/c NE of Pinto, granodiorite, not mangnetic
	7	408412	5508296		as above, small granodiorite intrusions forming knolls
	8	405773	5498497		along road to Nove occurrence
P215851	9	404487	5496785	Cr	FC-04 -- vuggy quartz veins (nice XL'x)- f.gr.sulph. with magnetite in breccia
P215852	10	404131	5496985	V	FC-05 -- diorite(mJp) with 20-30% magnetite, f.gr. diss. Py Po
	11	404543	5497744		access rds. Off McFarlane Cr.to Pinto
	12	401946	5498845		next access rd
	13	402096	5498107		" "
	14	404777	5492841		Tenderloin rd., ascends creek high in Ta-- magn.-rich diorite
	15	405706	5493120		small syenite dyke intruding diorite
P215867,8	16	405508	5492832	NbTaZr	FC-06,07-- diorite gneiss (magneite layers0FC-07 less segregated
	17	408522	5490145		branch rd., off Tenderloin
	18	406008	5492849		Tenderloin rd., ascends creek high in Ta-- magn.-rich diorite
	19	406423	5493003		" "
	20	407727	5492776		o/c - diorite, calc-silicate altn. (epidote)
P215853	21	408668	5491743	TaNbTiVCuLiP	FC-08 -- lodestone (40% magnetite), skarn med-coarse-gr., friable--epidote, sphene
P215854	22	409498	5491961	NbTa	FC-09 --pink syenite porphyry, minor magnetite+ elong black XL'slarge othoclase XL's
	23	409475	5491630		SILT contact of mEc with mJp, minor black sands
	24	412202	5433259		Christina Lake, Bitter Cr. Road towards Mastadon PGE occurrence
	25	410605	5495216		Pinto main, access Pinto from NE
	26	401966	5497686		" "
	27	402911	5498331		" "
P215855	28	402976	5497427		FC-10 -- light brown, f.gr. Granodiorite, diss Py, sph in stringers
P215856	29	402880	5497274		FC-11-- granodiorite, f.gr.sulph. In stringers -- mostly PyPo, minor Mo
P215857	30	402588	5497193		FC-12-- quartz vein, with diss v.f.gr. Py, chalco, sph, Mo
P215858	31	402545	5496960	CuRb	FC-13 -- granodiorite with diss. Py, Chalco
	32	402780	5496161		Pinto main
	33	402435	5496582		sample pit

P215859	34	402358	5480586	V	FC-14 -- qtz-CO3 vein, v.f.gr. Sulph, magn in lenses
	35	399056	5476339		Deadeye Creek Rd., access to Bowman Cr,
	36	400877	5480781		" "
	37	404597	5485754		Deadeye Creek Rd., access to Bowman Cr,
	38	406114	5486967		" "
	39	407817	5487974		" "
P215860	40	408182	5488090	VCrNbNi	FC-15 -- m.gr.gabbro, v. hard, magnetite, Py Po diss. Acc. Apatite, sphene
	41	408047	5484653		Bear Paw Lake
	42	405892	5484134		south ext. of rd.
	43	405413	5438869		change to qtz monzonite from syenite
P215864	44	416192	5438869	V	BB-01 -- Sutherland creek; augen gneiss, apatite, sphene
P215865	45	417416	5439544	VCu	BB-02arkose, high in clearcut, f.gr. Sphal.
P215866	46	420362	5441039	Cr	BB-03 -- qtz diorite, containing aplite dykes
	47	420171	5439331		Sutherland Creek
	48	419597	5440902		" "
P215862	49	402030	5496430	MoCuCr	FC-17--gossanous qtz veins, granodiorite, diss sulph, Mo
	50	402161	5497170		top of Pinto
P215863	51	401831	5496763	TaNbTiVCrNiP	FC-18--brown weathering syenite, magnetite in lenses & stringers, acc. Sphene
P215861	52	402435	5497584		FC-16-- m.gr. Granodiorite, magn. Stringers, v. f.gr. Sulph Py
	53	418123	5446761		Josh Creek
	54	418373	5447746		" "
	55	418857	5435217		Sutherland Creek

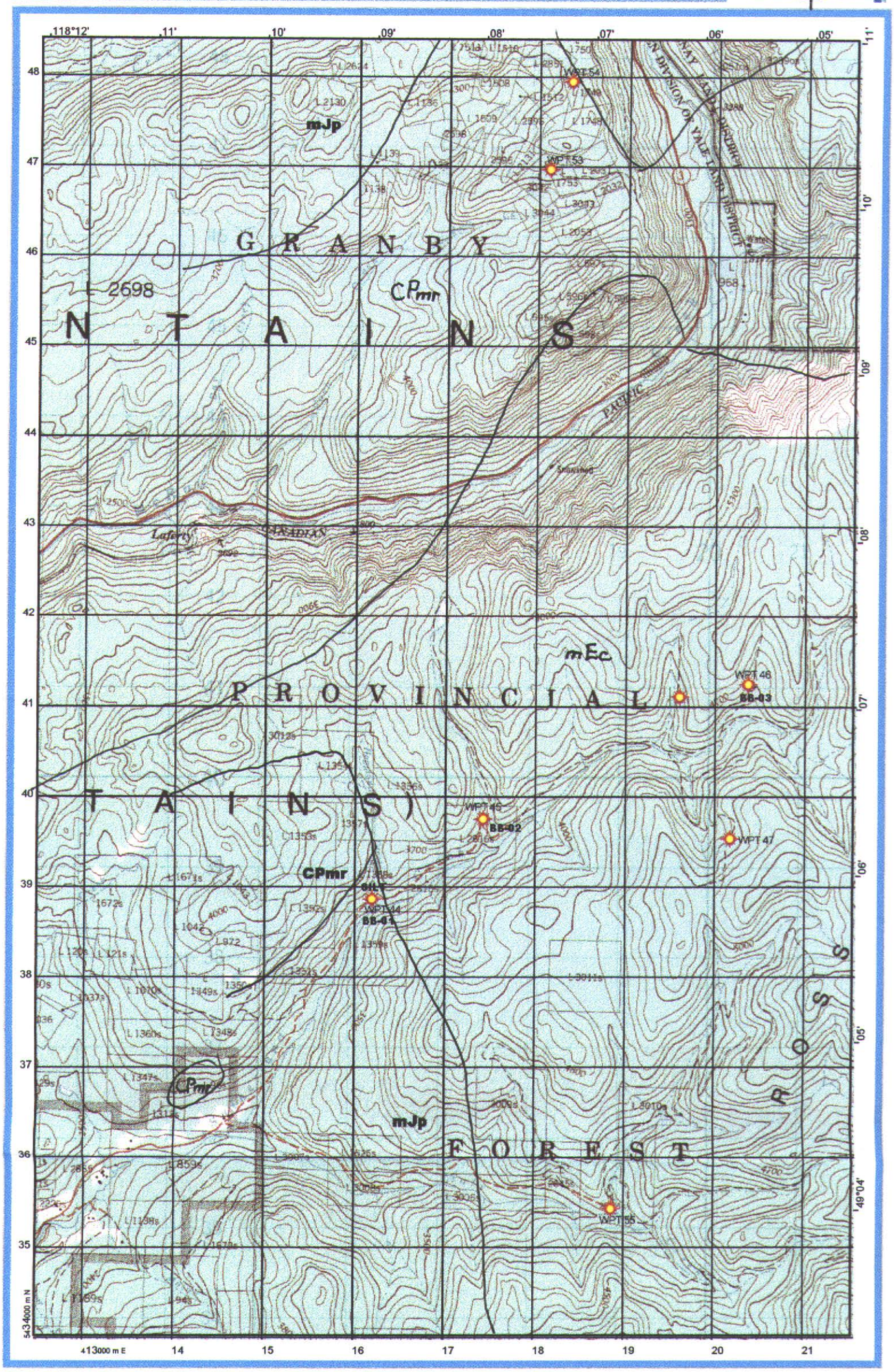
Pinto-Tenderloin



0 m 1250 m 2500 m

Scale 1 : 50 000

Burnt Basi



0 m 1250 m 2500 m

Scale 1 : 50 000

ALS Chemex

August 20, 2001

Kettle River Ventures
619 North Fork Road, RR #1
Lumby, BC
V0E – 2G0

ATTENTION: Barbara Welsh,

Dear Ms. Welsh,

RE: Certificate of Analysis A0120837
Corrected Copy for All ICP Data – All Samples

Please find enclosed a revised copy of Certificate of Analysis A0120837 which contains corrections to all ICP results for all samples. In response to your concern we have looked into the copper results originally reported. As part of our investigation we have re-run this set of samples twice and found that, regrettably, the original sample order was incorrect. Sample number one was in position eighteen and samples two through eighteen were shifted up by one position. This error likely occurred during the sample weighing stage.

In order to eliminate this type of error in the future we will be implementing a new LIM System in the next few months that will require all samples to be scanned into the system as they are weighed. The technician will be notified if the sample scanned does not correspond to the sample position and can be corrected at that time.

The re-run results did not yield higher copper results as expected. We have examined both the pulp and reject, confirmed they are the correct samples and checked to ensure they behave as magnetite.

On behalf of ALS Chemex please allow me to apologize for any inconvenience this may have caused. If you have any questions or further requests feel free to contact me.

Yours sincerely

Michele Ramshaw
Quality Assurance Chemist

Enclosures: Certificate of Analysis A0120837
Corrected Copy for All ICP Data – All Samples

AURORA LABORATORY SERVICES LTD.
212 Brooksbank Avenue North Vancouver BC Canada V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 Website: www.alschemex.com

ALS Chemex

Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: KETTLE RIVER VENTURES **

619 NORTH FORK ROAD, RR #1
LUMBY, BC
V0E 2G0

Project : PINTO
Comments: ATTN: BARBARA WELSH

Page Number : 1-A
Total Pages : 1
Certificate Date: 17-AUG-2001
Invoice No. : I0120837
P.O. Number :
Account : RIH

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0120837

SAMPLE	PREP CODE	Weight Kg	Au ppb ICP-MS	Pt ppb ICP-MS	Pd ppb ICP-MS	Ag ppm (ICP)	Al % (ICP)	As ppm	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Ce ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cs ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	Ga ppm (ICP)
215851 FC-04	94139402	0.80	1	1	< 1	0.48	6.96	< 0.2	1149.5	2.35	1.58	0.38	6.22	47.1	5.2	119	3.15	37.6	2.31	17.75
215852 05	94139402	0.86	< 1	1	< 1	0.28	9.61	< 0.2	1521.5	1.65	0.07	0.81	0.58	41.6	5.0	45	1.65	21.4	2.46	18.25
215853 06	94139402	0.76	< 1	< 1	< 1	1.18	6.29	< 0.2	1668.0	2.05	0.05	6.60	0.12	199.5	39.6	31	1.75	81.7	7.93	17.55
215854 07	94139402	0.72	< 1	< 1	< 1	2.06	8.19	0.6	2040	2.65	0.06	2.30	0.06	187.5	9.9	54	1.05	13.6	3.07	19.10
215855 10	94139402	0.84	< 1	< 1	< 1	0.14	8.17	< 0.2	1384.5	1.65	0.04	0.55	0.32	29.4	3.4	78	2.20	3.6	1.63	19.80
215856 11	94139402	0.88	< 1	< 1	< 1	0.20	9.10	0.2	1849.0	1.90	0.08	1.05	0.88	55.4	4.6	62	1.65	18.6	2.15	19.20
215857 12	94139402	0.66	1	< 1	< 1	0.48	7.18	< 0.2	949.3	1.85	1.32	0.12	1.78	26.7	2.9	85	3.10	27.6	2.04	14.75
215858 13	94139402	0.82	< 1	1	< 1	0.60	7.60	< 0.2	1172.0	1.45	0.78	0.35	5.48	23.2	2.7	88	6.00	224.8	1.97	19.95
215859 14	94139402	0.60	-----	-----	-----	0.20	7.29	0.6	1790.0	1.10	0.09	3.50	0.32	41.2	5.5	39	2.45	8.0	2.60	15.10
215860 15	94139402	0.86	-----	-----	-----	0.90	7.58	1.2	1517.0	3.20	0.07	4.20	0.10	130.0	23.0	184	3.15	37.6	4.63	16.70
215861 16	94139402	0.50	< 1	1	< 1	0.22	8.45	0.2	1431.0	2.20	0.12	0.88	0.08	51.4	3.1	80	2.10	15.6	1.62	20.20
215862 17	94139402	0.56	1	< 1	< 1	0.42	7.04	0.4	1359.5	1.30	1.11	0.09	0.88	6.30	0.9	101	4.40	43.4	2.79	16.70
215863 18	94139402	0.54	1	1	< 1	0.86	8.08	1.0	2720	1.65	0.08	5.40	0.12	196.5	23.9	140	2.05	37.6	5.41	20.30
215864 BS-01	94139402	0.68	-----	-----	-----	0.44	8.67	0.4	1712.0	2.05	0.16	2.20	1.74	85.7	10.7	39	2.45	30.8	4.86	21.15
215865 02	94139402	0.80	-----	-----	-----	0.26	8.83	1.0	900.0	1.40	0.30	0.98	0.06	43.4	8.9	212	4.15	51.9	5.07	20.05
215866 03	94139402	0.58	-----	-----	-----	0.20	8.23	< 0.2	1126.5	1.65	0.09	2.60	0.04	55.4	5.0	114	2.20	5.6	2.40	17.85
215867 FC-06	94139402	0.76	-----	-----	-----	0.44	8.87	0.6	2860	1.35	0.06	2.70	0.08	154.5	12.5	46	0.85	15.6	3.67	19.00
215868 07	94139402	0.90	-----	-----	-----	2.58	9.28	0.2	1636.5	6.70	0.05	0.90	0.02	250	4.7	31	1.15	13.2	2.21	23.40

CERTIFICATION:

** FOR ALL ICP-MS DATA ON ALL SAMPLES.

ALS Chemex

Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: KETTLE RIVER VENTURES **

619 NORTH FORK ROAD, RR #1
LUMBY, BC
V0E 2G0

Project : PINTO
Comments: ATTN: BARBARA WELSH

Page Number :1-C
Total Pages :1
Certificate Date: 17-AUG-2001
Invoice No. :I0120837
P.O. Number :
Account :RIH

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0120837

SAMPLE	PREP CODE	Sn ppm	Sr ppm (ICP)	Ta ppm (ICP)	Te ppm (ICP)	Th ppm (ICP)	Ti % (ICP)	Tl ppm (ICP)	U ppm (ICP)	V ppm (ICP)	W ppm (ICP)	Y ppm (ICP)	Zn ppm (ICP)	Zr ppm
215851 FC-04	94139402	1.0	538	0.40	0.20	2.0	0.10	0.76	1.5	83	2.7	12.4	206	18.0
215852 05	94139402	1.2	1110	1.60	< 0.05	2.8	0.23	0.48	0.7	102	2.5	11.2	82	36.5
215853 08	94139402	1.6	1165	3.25	0.05	14.0	0.88	0.62	3.0	299	1.1	35.3	108	67.5
215854 09	94139402	1.2	1450	6.50	< 0.05	32.4	0.33	0.56	4.3	67	1.5	19.9	72	121.0
215855 10	94139402	0.8	832	0.55	0.05	3.8	0.09	0.54	1.0	63	1.0	9.3	68	16.5
215856 11	94139402	1.2	980	1.10	< 0.05	11.8	0.15	0.62	1.8	69	0.8	13.0	96	21.5
215857 12	94139402	0.8	322	0.20	0.15	6.6	0.04	1.18	1.2	23	3.3	3.5	206	20.5
215858 13	94139402	1.6	696	0.50	0.15	3.8	0.10	1.86	1.2	72	1.8	9.5	254	18.0
215859 14	94139402	0.8	1180	0.55	< 0.05	6.2	0.13	0.42	1.8	112	1.9	13.6	72	24.5
215860 15	94139402	1.2	1135	3.05	< 0.05	29.2	0.45	0.56	6.6	142	0.6	21.0	78	49.0
215861 16	94139402	0.8	970	0.70	0.10	9.2	0.10	0.76	2.1	32	0.5	6.3	78	10.0
215862 17	94139402	1.2	427	0.65	0.10	7.6	0.10	1.56	1.5	50	3.3	2.4	44	13.0
215863 18	94139402	1.2	2310	2.20	0.05	9.2	0.60	0.52	1.8	170	0.7	27.0	98	32.0
215864 BB-01	94139402	1.8	1295	1.65	0.05	5.6	0.47	0.80	1.4	190	0.5	37.9	192	52.0
215865 02	94139402	1.0	113.0	0.70	0.05	8.0	0.39	0.60	2.0	297	0.9	9.4	130	7.0
215866 03	94139402	1.0	649	0.95	< 0.05	11.2	0.21	0.52	3.2	65	0.3	12.6	54	5.0
215867 FC-06	94139402	1.2	1910	1.60	0.10	8.4	0.38	0.70	1.8	95	1.0	19.7	78	23.5
215868 07	94139402	1.8	912	8.90	< 0.05	66.2	0.23	0.66	9.0	39	0.5	19.6	54	263

CERTIFICATION:

** FOR ALL ICP-MS DATA ON ALL SAMPLES.

ALS Chemex

Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: KETTLE RIVER VENTURES **

619 NORTH FORK ROAD, RR #1
LUMBY, BC
V0E 2G0

Project : PINTO
Comments: ATTN: BARBARA WELSH

Page Number :1-B
Total Pages :1
Certificate Date: 17-AUG-2001
Invoice No. :I0120837
P.O. Number :
Account :RIH

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0120837

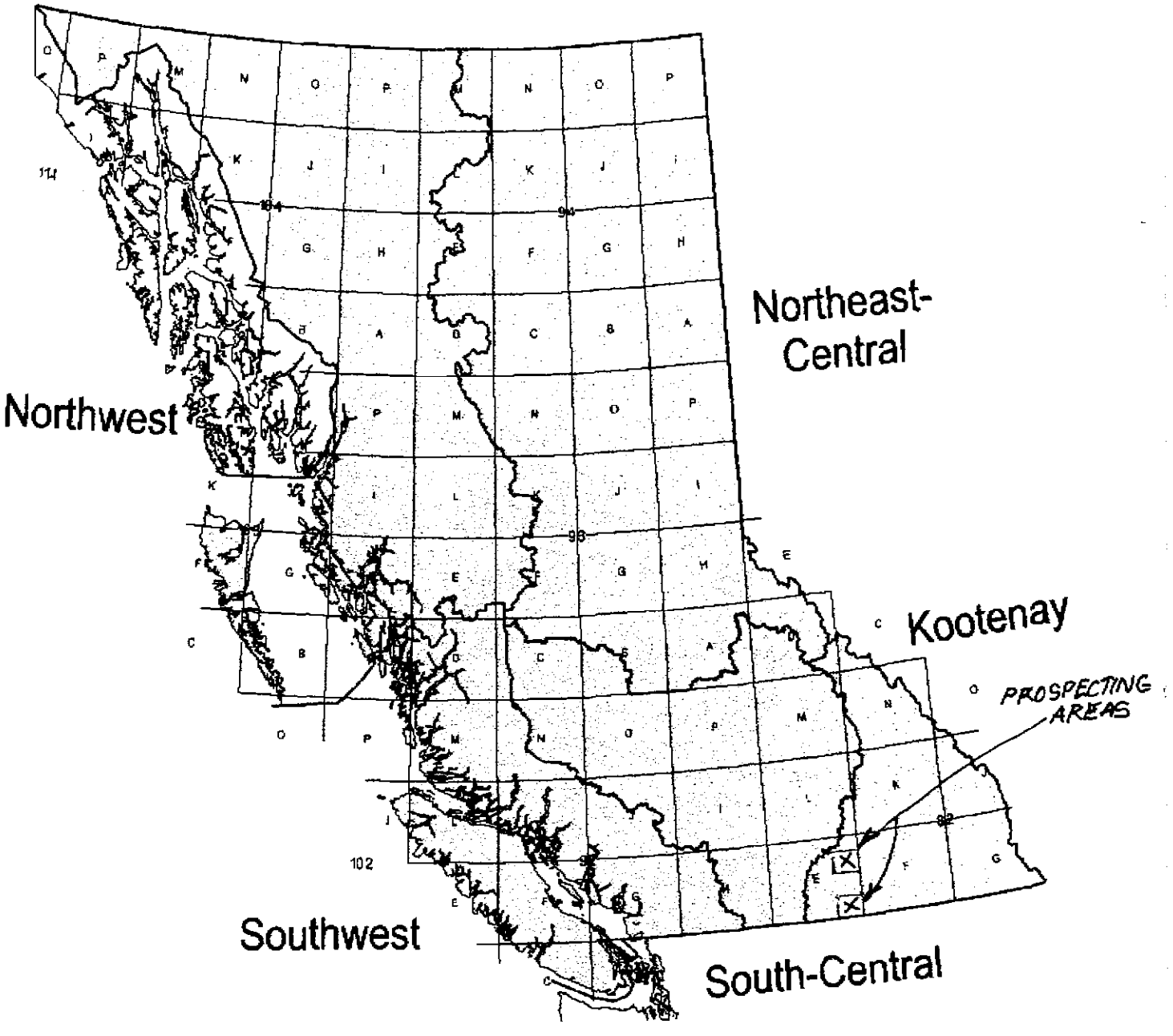
SAMPLE	PREP CODE	Ge ppm (ICP)	Hf ppm	In ppm	K % (ICP)	La ppm (ICP)	Li ppm (ICP)	Mg % (ICP)	Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Nb ppm (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm (ICP)	Rb ppm (ICP)	Re ppm	S %	Sb ppm (ICP)	Se ppm
215851 FC-04	94139402	0.05	0.7	0.050	2.92	33.5	12.0	0.40	645	59.22	2.67	5.5	4.8	440	19.5	118.5	0.004	0.80	0.15	< 1
215852 05	94139402	0.20	2.9	0.050	5.23	20.5	5.8	0.30	690	0.90	3.00	14.9	4.6	430	16.0	117.0	0.004	0.02	0.20	< 1
215853 08	94139402	0.20	3.4	0.090	2.45	110.5	39.6	3.90	1185	1.05	1.55	66.6	33.4	7330	7.5	109.0	0.002	0.14	0.15	< 1
215854 09	94139402	0.15	3.6	0.055	3.45	118.5	16.6	1.08	665	0.70	2.86	120.5	13.0	1870	20.0	131.0	0.006	0.01	0.10	< 1
215855 10	94139402	0.05	0.7	0.040	3.97	16.0	6.0	0.07	645	0.50	2.88	8.1	3.4	300	17.5	107.0	0.002	< 0.01	0.20	< 1
215856 11	94139402	0.15	1.0	0.065	4.67	29.0	10.8	0.29	590	0.95	2.87	11.5	3.2	490	20.0	124.0	0.004	0.12	0.15	< 1
215857 12	94139402	0.10	0.8	0.020	3.23	16.5	17.8	0.20	365	51.39	3.03	2.4	2.8	70	17.0	133.5	0.006	0.65	0.25	< 1
215858 13	94139402	0.25	0.7	0.085	5.63	13.0	10.2	0.25	520	26.75	1.53	7.1	3.4	230	22.5	223	0.004	0.73	0.20	< 1
215859 14	94139402	0.15	1.1	0.050	4.17	23.5	16.6	0.40	1365	0.75	2.35	7.1	4.4	530	20.5	91.3<	0.002	0.03	0.60	< 1
215860 15	94139402	0.15	2.4	0.055	2.67	73.5	14.6	2.88	945	0.90	2.80	56.7	48.4	2460	17.0	116.0	0.006	0.03	0.15	< 1
215861 16	94139402	< 0.05	0.6	0.030	2.99	30.0	19.2	0.35	580	0.55	3.10	10.9	3.0	570	21.5	100.5	0.002	0.07	0.10	< 1
215862 17	94139402	0.15	0.5	0.040	4.69	4.5	10.6	0.24	155	692.0	1.76	7.4	2.2	340	24.0	188.5	0.008	0.11	0.20	< 1
215863 18	94139402	0.20	1.5	0.070	2.89	108.5	18.6	3.05	990	5.40	2.50	52.3	53.2	4340	16.0	99.9<	0.002	0.03	0.20	1
215864 BB-01	94139402	0.15	2.4	0.100	4.48	46.5	19.8	0.81	1525	4.05	2.06	25.6	5.6	1430	16.5	124.5	0.002	0.05	0.25	< 1
215865 02	94139402	0.10	0.2	0.065	2.33	23.0	30.4	1.43	395	2.30	0.94	10.6	24.2	600	9.0	82.8	0.002	0.05	0.05	< 1
215866 03	94139402	0.05	0.3	0.035	2.57	32.0	25.4	0.74	535	0.80	2.25	13.0	4.4	680	17.5	92.5<	0.002	0.01	0.20	< 1
215867 FC-06	94139402	0.15	1.0	0.040	3.55	86.5	11.6	1.39	775	0.85	3.17	29.5	14.8	2120	23.5	111.5	0.006	0.01	0.15	< 1
215868 07	94139402	0.20	8.0	0.050	4.01	164.0	4.8	0.34	500	0.85	5.79	172.0	2.6	490	42.0	155.0	0.002	< 0.01	0.05	< 1

CERTIFICATION:

** FOR ALL ICP-MS DATA ON ALL SAMPLES.

PROGRAM PROPOSAL - PART B
Location of Proposed Project(s)

Indicate on this map (using an "X") the general location of each of the projects covered by this proposal.



PROGRAM PROPOSAL

For the

PROSPECTORS ASSISTANCE PROGRAM

Covering: BURNT BASIN, Greenwood M.D.,
NTS 82E/1E, 49°-10'-48"N x 118°-07'-58"W
FRANKLIN CAMP, Greenwood M.D.,
NTS 82E9W, 49°-35'-27"N x 118°-21'-28"W

Work Planned: June 1-July 15, 2001

Prepared by: Barbara Welsh,
619 North Fork Rd., RR #1,
Lumby, B.C. V0E 2G0
(250) 547-6642
e-mail: krv@telus.net

February 20, 2001

(a) PROJECT LOCATION

The targets of this proposal are two distinctly different types of deposit, possibly contained within the same host rocks. One target is magnetite and/or copper-rich sulphide zones containing platinum group elements and/or vanadium, hosted within the alkalic Coryell intrusions, and the other is tantalum mineralization hosted by pegmatitic phases of the same Coryell rocks. The principal prospecting area, Burnt Basin, is located 30 kilometres northeast of Grand Forks off Highway #3. There are six MINFILE occurrences within this area that are not staked:

Motherlode	AuPbZnCuMoPt	082ESE081
Coryell	GrDsBs	082ESE213
Burnt Basin	AuPbZnAgCd	082ESE102
Kittie	AgPbZn	082ESE103
Mollie Gibson	AuAgFeCu	082ESE082
W.S.Carlton	PbZnAuAgCu	082ESE209

The two that are most interesting are the Motherlode, since it contains platinum, and Coryell, which is described as a "black granite" used for building stone by the C.P.R. and was likely never analysed in detail. Three anomalous R.G.S. samples from creeks draining the area of the rock quarry yielded results for tantalum in the 95.9 percentile range, as well as high cesium levels.

The second prospecting area is located in the Franklin mining camp, centred on Tenderloin Mountain, approximately 24 kilometers southwest of Edgewood, B.C. The pertinent MINFILE occurrence is called Pinto (082ENE019). In the Franklin Camp, anomalous platinum, palladium, gold and silver values are associated with copper mineralization within the Coryell alkalic intrusion. The R.G.S. stream sediment sampling program also reveals very anomalous levels of tantalum, rubidium, and cesium (and potentially other rare elements) in streams draining Tenderloin Mountain, and the hills east of Burrel Creek (see map, page 3). It is not known whether the rare elements are found in the same rocks as the platinum group elements, although they may both be associated with pegmatitic phases of the Coryell syenite.

(b) PREVIOUS WORK

None of the previous exploration work done on the Pinto claims considered the potential for either PGE or rare elements (Ta, Rb, Cs, Li, or Nb), but instead was primarily focused on copper, gold and silver. During the 1970's, work was carried out on claims over that area based on a copper anomaly detected in the stream sediments of Pinto Creek. Work consisted of soil sampling, electromagnetic surveys, and prospecting. During the 1980's, Noranda Ltd., and then Inco Ltd. carried out mapping and geochemical programs. None of the samples were analyzed for platinum group elements. To the west of Pinto Creek, a small stockwork of quartz-pyrite-chalcopyrite mineralization was sampled and yielded 4.6 g/tonne of gold across a 1-metre width.

At Burnt Basin, most of the work was done in the early 1900's, following mineralized quartz veins, primarily for their silver, lead, and zinc. In 1934, a sample from the Motherlode yielded 8.57 g/tonne platinum. Sporadic activity since 1965 focused mainly on Ag-Pb-Zn mineralization in quartz veins, and there is no mention of exploration for either PGE or rare elements in the Coryell intrusions.

(b) ACCESS

Access to the Franklin camp can be gained from the town of Edgewood, located on the west side of Lower Arrow Lake. The road crosses the divide via Worthington Creek, then follows Burrell Creek south all the way to Grand Forks. The Franklin Camp is located at the junction of Gloucester Creek and Burrell Creek on the west side of

Tenderloin Mountain, approximately 24 kilometres south from Edgewood, or 72 kilometres north from Grand Forks.

Access to the Burnt Basin camp can be gained via Highway 3 from either Grand Forks or Castlegar to a dirt road 0.4 kilometres south of the Paulson Bridge.

(c) **PROSPECTING TARGET**

(i) Commodity: the "high-tech" metals: Pt-Pd-Os-Ir-Rh-Ru
Ta-Rb-Cs-Nb-Li-V-Ti

(ii) Deposit Type(s): Alkalic-hosted PGE+/-Cu+/-Au
Tantalum-bearing pegmatites

(iii) Geology:

In the Grand Forks area, the Coryell alkalic intrusions are among the youngest igneous rocks in the area, forming small stocks, dykes and sills on fault zones and unconformities. These intrusions are feeders for the Eocene age Marron volcanics. PGE mineralization in the Franklin camp and Burnt Basin is associated with the Coryell intrusions. Other styles of mineralization that are present in both camps include auriferous quartz veins, magnetite/sulphide replacements, and sulphide disseminations. The magnetite zones may represent a previously untested target for PGE mineralization since spinels are commonly associated with PGE (L. Hulbert, pers. comm., 2001). These magnetite zones also have the potential to contain vanadium, associated with titanium, and vanadium has recently emerged as an important metal because of its use in the vanadium redox battery. Titaniferous magnetitie deposits are the most important source of vanadium.

What is not clear is whether the anomalous levels of tantalum and rubidium in stream sediments, illustrated below, are related to the Coryell intrusions or other, granitic intrusions in the area. However, there are other tantalum bearing pegmatites in British Columbia associated with the Coryell intrusions, notably the Crescent (MINFILE 082FSW272), which assayed up to 25.7% niobium and 9.8% tantalum, and is described as "greisen and pegmatite zones within a cupola of the syenite". Similar greisen zones were observed by the author in the Coryell rocks to the north of the Franklin camp along Burrell Creek while prospecting. Regardless of the particular nature of the host rocks, the Regional Geochemical Survey highlights very well-defined areas which are anomalous in tantalum, rubidium and cesium. The fact that the Franklin and Burnt Basin camps are also known for PGE mineralization may be purely coincidental. In numerous papers written on the subject of tantalum-bearing pegmatites, P. Cerny has identified the important role that volatiles play in the formation of these deposits, as well as the fact that there is very strong fractionation of the magmas related to the most economically viable types of pegmatites. These two factors, and the resulting coarse-grained pegmatitic textures, are also felt to be important in the concentration of platinum group elements.

Table 1. R.G.S. data for the Franklin and Burnt Basin camps (95% data only)

MAP	ID	UTME	UTMN	FORM	Ta	%	Rb	%	Cs	%	Location
82E01	1109	420636	5445768	KTm	5.3	95.9%	120	87.0%			Coryell Creek
82E01	1111	420634	5444813	KTm	3.2	86.6%			6.7	95.4%	
82E01	1110	420601	5445190	KTm	3.1	85.4%	130	87.0%	6.8	95.6%	
82E09	1202	412650	5496651	KTm	6.1	97.4%	160	96.1%			
82E09	3115	404977	5491920	EKgd	7.9	98.8%	160	96.1%			
82E09	3116	405528	5495387	EKgd	12.0	99.6%	200	99.1%			
82E09	3179	405666	5493046	EKgd	7.2	98.4%	160	96.1%			
82E09	3184	401684	5492350	eoTs					21.0	99.8%	
82E09	3185	401694	5493069	eoTs	6.8	98.1%	170	97.2%			Pinto Creek

82E09	7416	392320	5500360	EKgd	5.3	95.9%	170	97.2%
82E09	7447	401901	5499753	KTm	5.2	95.8%	180	98.2%
82E09	9234	416680	5486884	EKgd	6.9	98.3%	190	98.9%
82E09	9235	416159	5492802	KTm	10.0	99.5%	190	98.9%

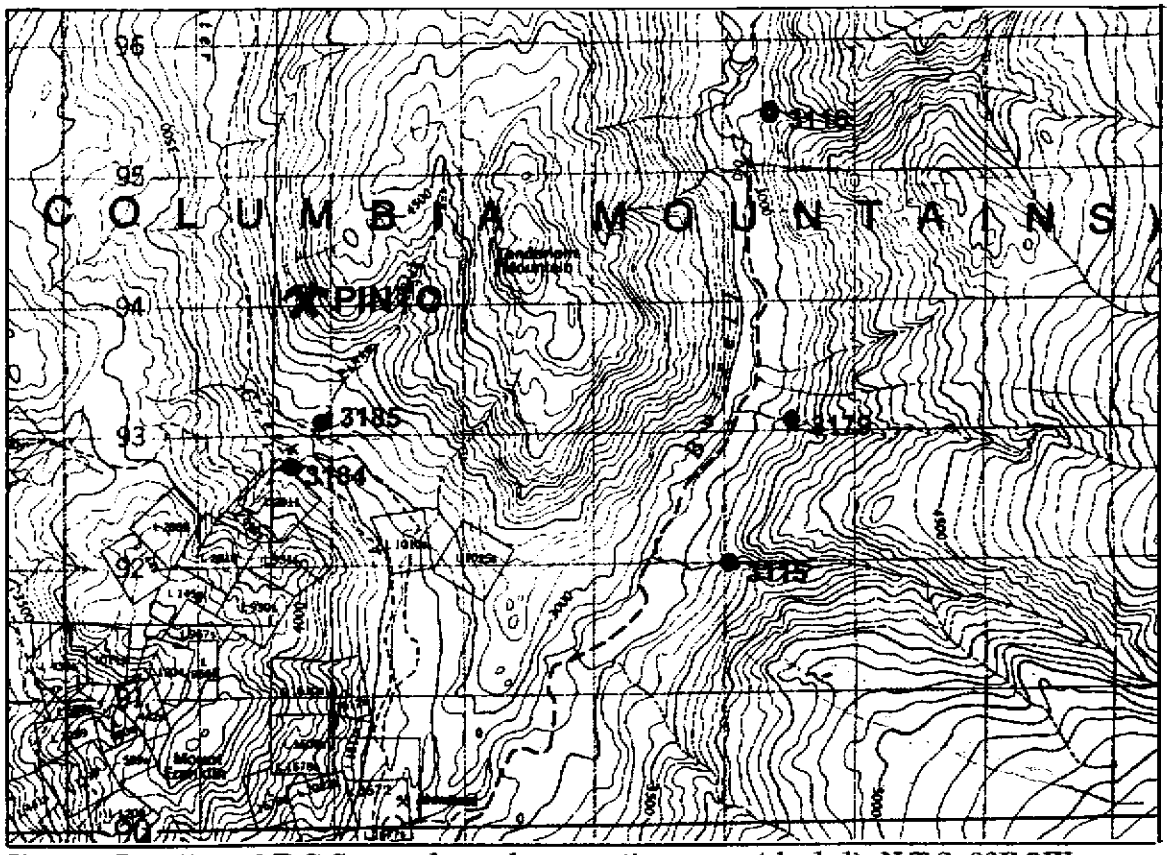


Fig. 1 – Location of R.G.S. samples and prospecting areas (shaded), N.T.S. 82E/9W

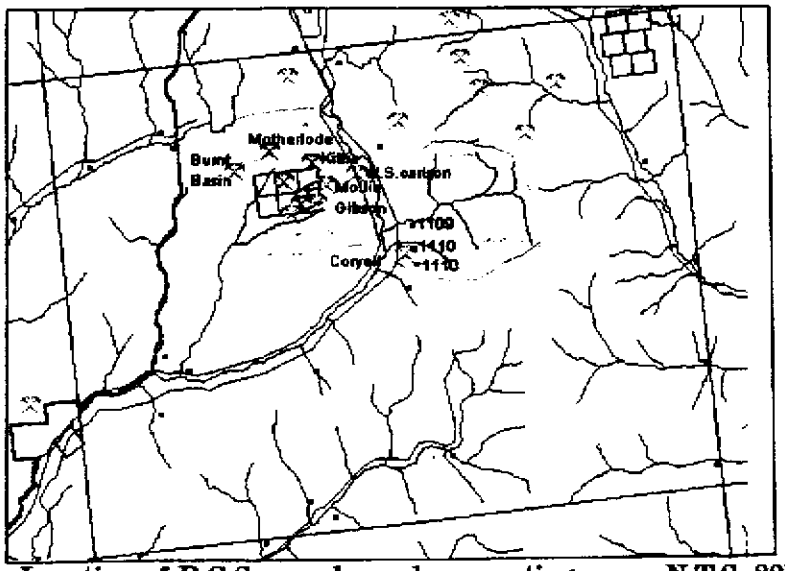


Fig. 2 – Location of R.G.S. samples and prospecting areas, N.T.S. 82E/01

(e) AMOUNT AND TYPE OF WORK

It is planned to spend a total of 30 days, by two people, between June 1 and July 15, 2001. Work will consist of the following activities:

(i) Prospecting around the MINFILE occurrences listed above, with particular emphasis on rocks with a pegmatitic texture, and rocks rich in copper and/or magnetite. The attached newspaper article, from the Chronicle Journal in January of this year, places strong emphasis on basic prospecting as the primary means of making new discoveries of tantalum.

(ii) Rock sampling, sample description, description of outcrop (size, shape, orientation), mineralogy, structure, and alteration. An ICP-AES for Pt-Pd-Au cost $18.00 per sample, and an ICP-MS for Ta-Rb-Cs-Nb-Sn-V-Li-Zr costs $25.00 per sample.

(iii) Qualitative stream sediment sampling, (i.e./gold panning) of surrounding streams and tributaries for visual observation of platinum, magnetite, and gold. As both PGE and tantalum are heavy minerals, analysing pan concentrates can be an effective means of sampling different catchment areas.

(iii) Detailed Geological mapping, in the areas indicated by the stream sediment sampling, and around the MIFILE occurrences mentioned.

(f) REFERENCES

1) Cerny, Petr (1991) "Rare-element Granitic Pematites, Part I: Anatomy and Internal Evolution of Pegmatite Deposits", Geoscience Canada Vol.18, Number 2.

2) Cerny, Petr (1991). "Rare-element Granitic Pegmatites, Part II: Regional to Global Environments and Petrogenesis", Geoscience Canada, Vol. 18, number 2.

3) Hulbert, J.M. et al. (1988) Geological Environments of the Platinum Group Elements, GSC Open File 1440, 148 p.

4) Moller, P. and Morteani, G. (1987) "Geochemical exploration Guide for Tantalum Pegmatites.", Econ. Geol. Vol 82, pp. 1888-1897.

5) Morris, T.F. and Breaks, F.W. (2000). Heavy Mineral Study, Separation Lake Greenstone Belt Region, Northwestern Ontario., Ontario Geological Survey.

6) Pell, J. (1987) "Alkaline Ultrabasic Rocks in British Columbia: Carbonatites, Nepheline Syenites, Kimberlites, Ultramafic Lamprophyres and Related Rocks", EMPR Open File 1987-17, 109 p.

7) Rublee, V.J. (1986) Occurrence and Distribution of Platinum Group Elements in British Columbia, EMPR Open File 1986-7, 95 p.

8) Sutcliffe, R.H. (1999) "Exploration and Geological Models for Platinum Group Metal Deposits: A North American Perspective", Abstract from Cordilleran Roundup 2000 Breakaway Session, Vancouver, B.C.

Rare metal tucked away in NWO

BY BRYAN MEADOWS
NORTHWEST BUREAU

Northwestern Ontario may be in for a gold rush of sorts.

But it's not gold that is drawing the interest of prospectors and mining companies.

It's tantalum, a rare metallic element used primarily in the electronics industry.

With the metal in short supply and buyers scrambling for it, prices for tantalum have skyrocketed ten-fold over the past year from about $40 a pound to more than $400 US a pound just before Christmas.

It was selling for about $383 US per pound last week.

Kenora district geologist Peter Hinz said in an interview that the potential for a major tantalum discovery in Northwestern Ontario "is high."

"There are some really good properties being explored," Hinz said.

One mining company in the hunt is Avalon Ventures Ltd.

It's Big Whopper petalite discovery north of Kenora and Lilypad Lake property north of Thunder Bay hold promise of tantalum production.

Avalon chief geologist Ian Campbell said an "extreme shortage of tantalum" is prodding more mining companies to concentrate on exploring for the elusive metal.

Campbell said tantalum is used in miniature high-efficiency electronic capacitors found in cell phones, lap-top computers, Sony PlayStation 2 and Nintendo's Gameboy.

Because it has a high melting point and is resistant to corrosion, other uses include surgical implants, jet fighters, weapon systems and the cutting edges of high-speed tools.

"Continued growth in the electronics industry coupled with tantalum's growing use in super alloys, semi-conductors and the fibre-optics industry will ensure continued growth in demand in the foreseeable future," Campbell said.

• Continued on page A5

NEWS A5

Big Whopper source of rare materials

• Continued from page A1

Avalon's Big Whopper petalite discovery at Separation Rapids, about 60 kilometres north of Kenora, contains tantalum-enriched rock, Campbell said.

Petalite is also a rare material used in the manufacture of ceramics and other heat-resistant glass construction.

Campbell said the Big Whopper discovery is currently the largest known petalite deposit in the world, estimated at about 11.4 million tonnes, grading at 1.34 per cent petalite.

Petalite is worth about $270 US per tonne.

The deposit also contains .007 to 0.1 per cent tantalum, he said.

Campbell said his company is working on the feasibility and financing of opening an open-pit mine on the property within two years.

He said tantalum is "a difficult exploration target.

"It's not magnetic so it won't show up on geophysical surveys," he said.

He said it is basically found by "on-the-ground prospecting and grub stumping."

Hinz agreed with Campbell about tantalum being difficult to find.

"Prospectors have to cover a lot of ground and know the particular geology to look for," he said, adding that tantalum usually is found on the edge of where greenstone belts converge with granite.

Campbell said Avalon saw the shortage of tantalum coming so it acquired an interest in five other properties near Pickle Lake, Ignace, Marathon, Lac du Bonnet and north of Thunder Bay which show promise of harbouring the metal.

> *"Prospectors have to cover a lot of ground and know the particular geology to look for."*
>
> **Peter Hinz**
> *Kenora district geologist*

Because the market for tantalum "has gone through the roof," Hinz said, "there are several companies in the hunt for it, as well as Avalon Ventures.

They include Emerald Fields Resources Corp., Champion Bear Resources Ltd., Tantalum Mining Corp. of Canada Ltd. and Houston Lake Mining.

The major commercial deposits of tantalum are currently in Australia and Scandinavia.

North America's only tantalum mine is owned by Tantalum Mining near Lac du Bonnet, Man.