

GEOLOGICAL REPORT

on the

MYOFF CREEK PROPERTY

M 2-5, 7-12, 20, 21; N 2-7; T 10-21; TN 1-21 Mineral Claims

Kamloops Mining Division

NTS: 82M/7E, 7W

B.C. Geographic System Map Sheet: 082M.037

Latitude: 51° 21' N; Longitude 118° 44' W

UTM: 5 690 300 N; 379 000 E; Zone 11

Owner and Operator: Cross Lake Minerals Ltd.

Author: Jim Miller-Tait, P.Geo.

December 10, 2001

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

26,811

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SECTION A: REPORT

INTRODUCTION:

Cross Lake Minerals Ltd. owns a 100% interest in the Myoff Creek Property. The property was staked in 2001 following a review of prospective areas in British Columbia for tantalum, niobium and rare earth elements. The Myoff Creek Property is located 55 kilometres northwest of Revelstoke, B.C., in the Kamloops Mining Division. The claims cover 12 kilometres of a prospective belt of carbonatite that hosts tantalum, niobium and the rare earth elements lanthanum, cerium and neodymium. This report summarizes three phases of field exploration carried out from late May to October 2001. The first phase of fieldwork from May 27 to June 5, 2001 consisted of rehabilitating eight kilometres of access road and excavating, sampling and mapping four trenches across the prospective carbonatite unit. The second phase of exploration from August 13-20, 2001 consisted of geological mapping over the property and sampling the carbonatite where exposed. The third and final phase of fieldwork was carried from October 1-5, 2001 and consisted of rock saw channel sampling across the carbonatite where creek erosion had exposed a 35 metre true thickness. A check assay program and preliminary petrographic and mineralogical studies have also been completed on selected carbonatite samples for mineralogical identification.

PROPERTY:

The Myoff Creek Property is 100% owned by Cross Lake Minerals Ltd. and was acquired by staking on various dates from January to October of 2001. The property is located 55 kilometres northwest of Revelstoke, B.C. in the Kamloops Mining Division. The property consists of 58

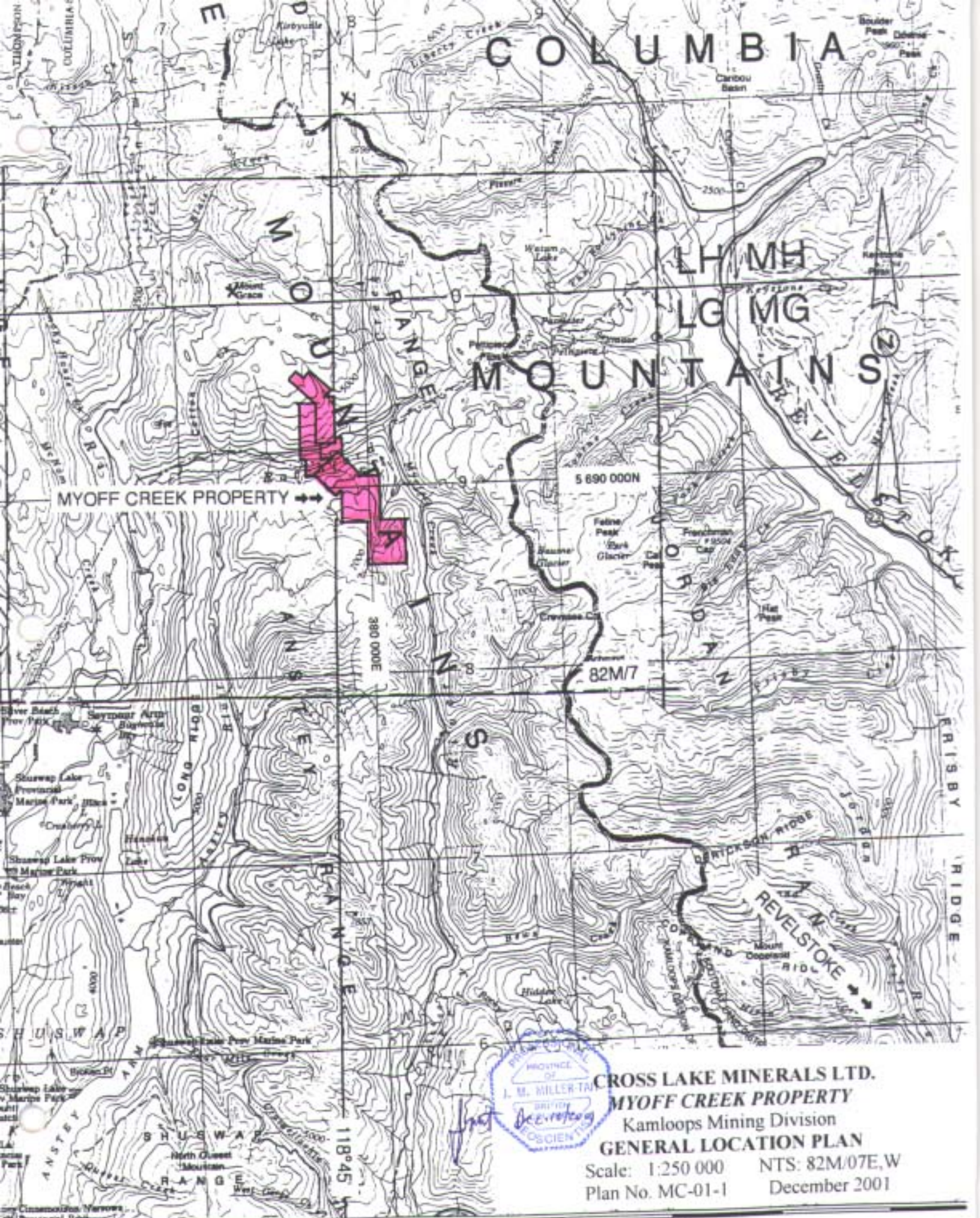
mineral claims totally 96 units and covers an area of approximately 2,400 hectares. A list of the claims is appended in Schedule B. The claims are located on NTS mapsheets 82M/7E and 7W and BCGS map 82M.037. Geographic coordinates are latitude 51°21'N and longitude 118°44'W while the UTM coordinates are 5 690 300N and 379 000E in Zone 11. The property location and mineral claims are shown on plan numbers MC-01-1, MC-01-2 and MC-01-3.

LOCATION AND ACCESS:

The property is located 55 kilometres northwest of Revelstoke, B.C. in the Anstey Range of the Monashee Mountains near the confluence of Myoff and Ratchford Creeks. Access to the property is excellent due to extensive logging and hydro transmission line access roads around and on the claims. The Perry River main haul logging road provides the main access to the claims from the settlement of Craigellachie, located 40 kilometres to the south on the Trans-Canada Highway. Craigellachie is on the main line of the Canadian Pacific Railway and is located halfway between the major centres of Salmon Arm and Revelstoke. Additional access is available by road from Seymour Arm at the north end of Shuswap Lake. Approximately six kilometres of the 12 kilometre length of the property has been logged so secondary logging roads also provide access. The B.C. Hydro 500 KVA transmission line from the Mica Creek Dam and its accompanying service road crosses the property on the south side of Ratchford Creek.

CLIMATE, TOPOGRAPHY AND VEGETATION:

Warm, fairly wet summers and moderately cold winters with heavy snowfall characterize the climate of the area. Elevations on the property range from 610 metres at Ratchford Creek in the centre of the Property to 2,040 metres at the southern end. The slopes below the 1,200 metre elevation are steep but become more gradual at higher elevations, especially the in area where



MYOFF CREEK PROPERTY →→

C O L U M B I A

M O U N T A I N S

5 890 000N

82M/7

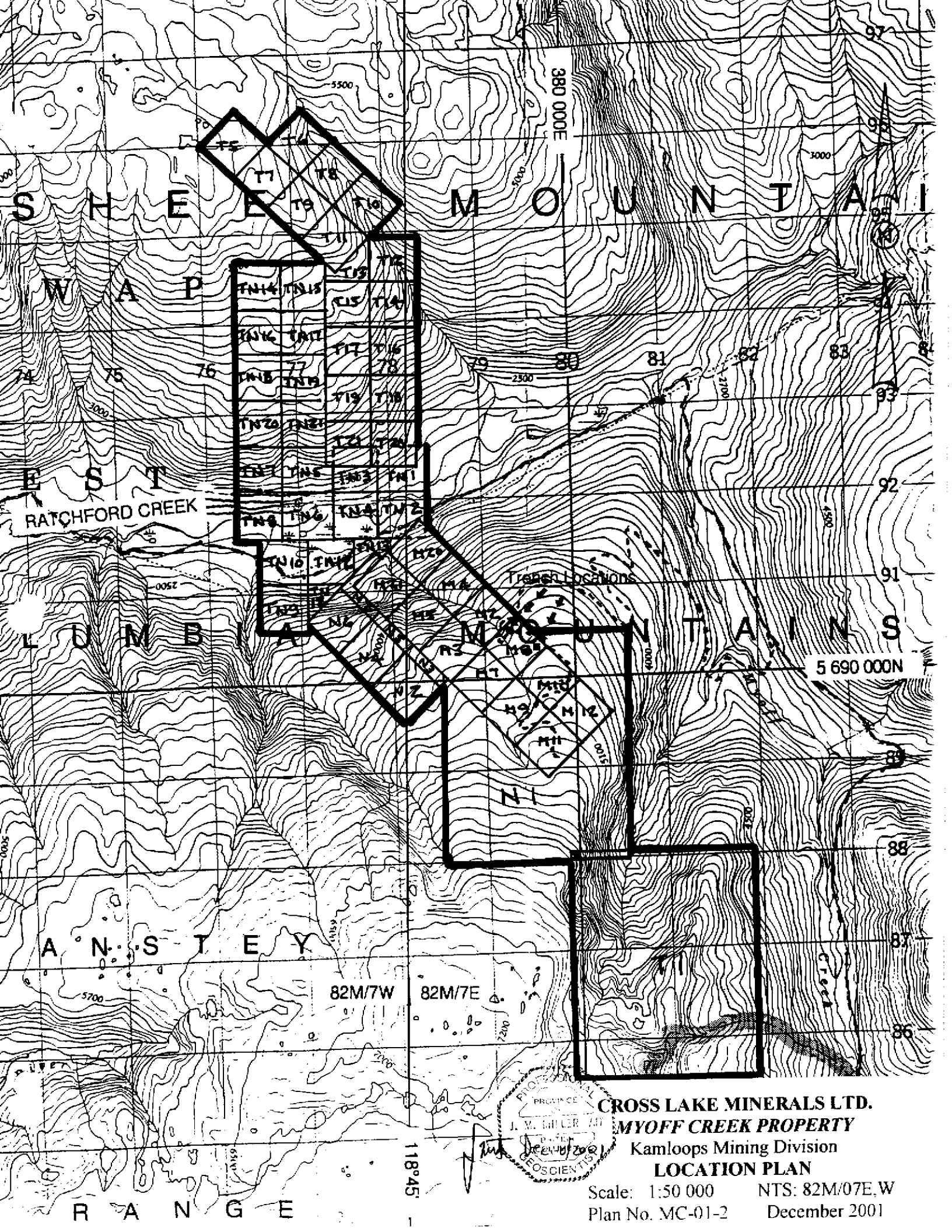
380 000E

118°45'



CROSS LAKE MINERALS LTD.
MYOFF CREEK PROPERTY
Kamloops Mining Division
GENERAL LOCATION PLAN

Scale: 1:250 000 NTS: 82M/07E,W
Plan No. MC-01-1 December 2001



S E E L E Y M O U N T A I N S

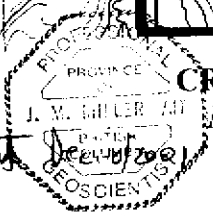
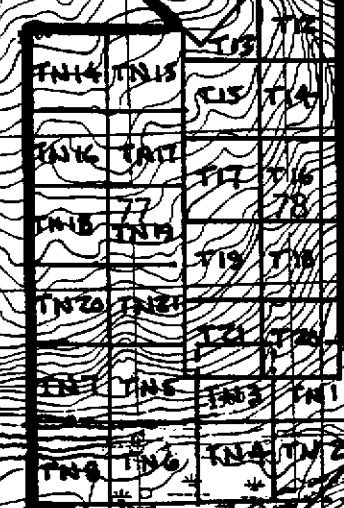
W A P

E S T
RATCHFORD CREEK

L U M B I A N M O U N T A I N S

A N S T E Y

R A N G E

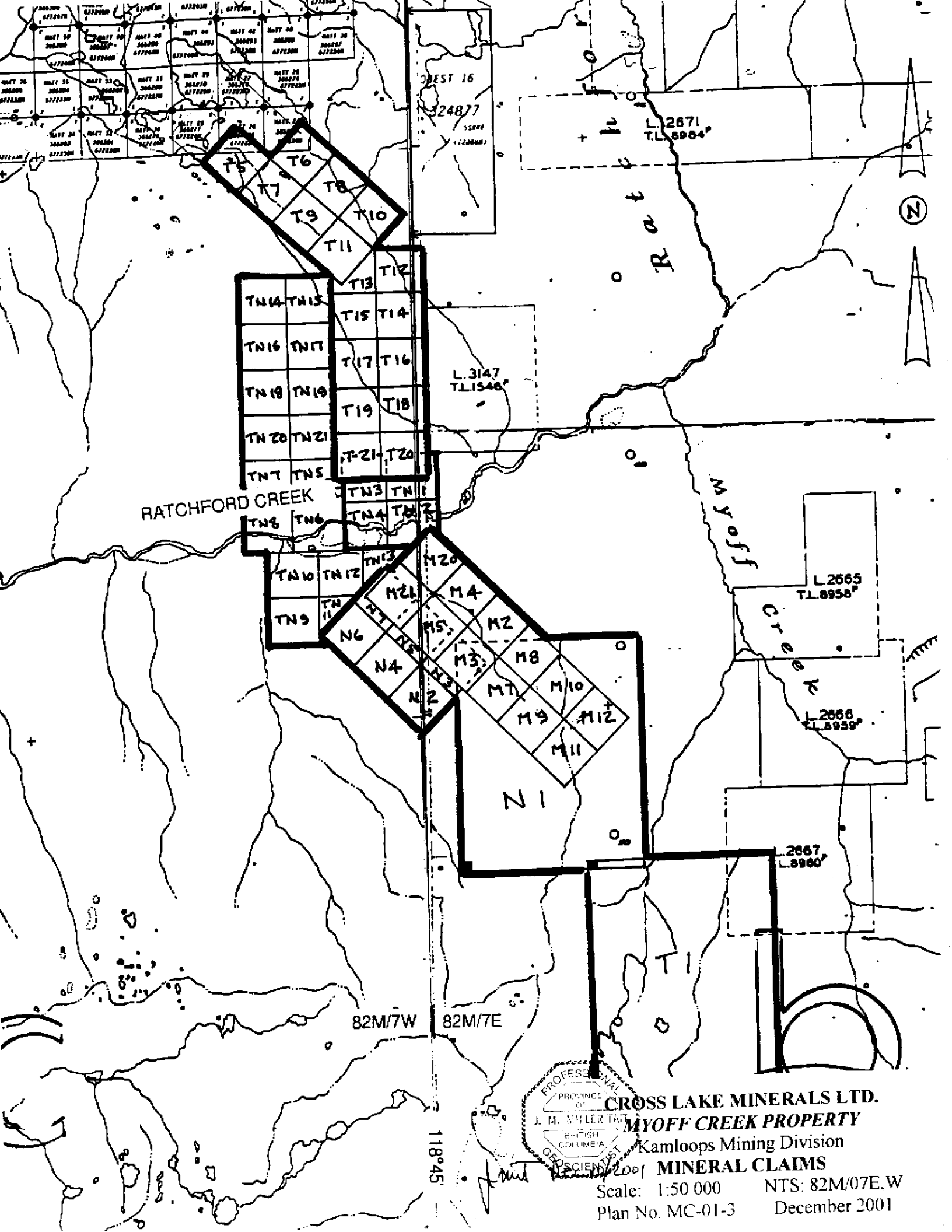


CROSS LAKE MINERALS LTD.
MYOFF CREEK PROPERTY

Kamloops Mining Division
LOCATION PLAN

Scale: 1:50 000 NTS: 82M/07E,W
Plan No. MC-01-2 December 2001

118°45'

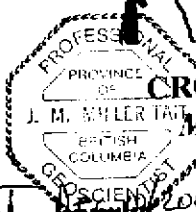


RATCHFORD CREEK

Myoff Creek

82M/7W 82M/7E

118°45'



CROSS LAKE MINERALS LTD.
MYOFF CREEK PROPERTY
 Kamloops Mining Division
MINERAL CLAIMS

Scale: 1:50 000 NTS: 82M/07E,W
 Plan No. MC-01-3 December 2001

the trenching was completed. The vegetation consists of fir, cedar, hemlock, alder and devils club. Significant areas of the property have been clear-cut including the area where the trenching was completed.

HISTORY:

In 1983, Duval International Corporation completed geological mapping, prospecting and sampling over a three kilometre strike length of the carbonatite in the claim area. Duval collected 469 soil, 72 rock and 15 stream sediment samples during their exploration program. There were several highly anomalous areas outlined and the rock samples were highly anomalous in niobium, tantalum, cerium, lanthanum and neodymium, with the highest values being 2,400 ppm niobium, 72 ppm tantalum, 9,890 ppm cerium, 6,965 ppm lanthanum and 330 ppm neodymium.

The 1983 rock samples were analyzed for uranium and thorium and are well below the provincial moratorium threshold of 0.05% uranium or 0.15% thorium. The average of the 21 rock samples tested was 0.0022% thorium and 0.00013% uranium.

In 1988, Teck Explorations Limited completed stream silt sampling (89 samples) from four drainages, 17.85 line kilometres of magnetometer surveying, 15.35 line kilometres of spectrometer/scintillometer surveying and 749 metres of trenching. The trenches were dug with a Cat 225 excavator, mapped and then sampled with 282 rock channel samples being collected. The best niobium values were from trench ATR-2 of 0.19% niobium over a width of 55 metres. Carbonatite that was excavated in all trenches averaged 0.13% niobium. Cerium and lanthanum

were all highly anomalous but the values were not plotted. The rock samples were not analyzed for tantalum or neodymium.

REGIONAL GEOLOGY:

The region is underlain by the Shuswap Metamorphic Complex, which is a terrain of moderate to high-grade regional metamorphic rocks. The main area of interest lies within the Monashee Complex along the northwestern margin of Frenchman Cap Dome. The core of the dome is composed of a mixed paragneiss and orthogneiss succession of Aphebian age, and is mantled by an unconformably overlying succession of metasedimentary rocks locally intruded by a suite of alkalic gneiss. The metasediments consist of quartzite, quartz-mica schist, semi-pelitic and pelitic schist, biotite-quartz-feldspar paragneiss, calc-silicate and thin but continuous marble horizon.

Two types of carbonatite occur within the calc-silicate unit (McMillan, 1970). Type I is a medium to coarse grained, well banded intrusive unit composed of 70 to 80% calcite with accessory apatite, biotite, amphibole and minor magnetite, sphene, pyrite, pyrrhotite, molybdenum, pyrochlore, monazite and chalcopyrite. It may be locally associated with syenite or nepheline syenite gneiss, and there may be some fenetization.

Type II, named the Mount Grace carbonatite, is an extrusive phase. It lies in contact with a white marble unit and has a strike length exceeding 45 kilometres. It is medium to coarse grained, grades into the white marble unit, and consists of 80 to 90% calcite with accessory

phlogopite, plagioclase, apatite, amphibole and minor magnetite, pyrite, graphite and chalcopyrite.

The structure of the northwestern portion of the Frenchman Cap Dome is dominated by the tight, early Mount Grace Syncline. Its axial surface is defined by a foliation of aligned platy minerals and flattened quartz grains. Later phase two folding trends southwest and plunges variably towards the west, and is superimposed on large isoclinal folds.

Regional metamorphism reached amphibolite facies and produced sillimanite-kyanite, sillimanite and sillimanite-potassic feldspar assemblages in pelitic rocks and recrystallized carbonate and carbonatite units to form medium to coarse grained granoblastic marbles.

PROPERTY GEOLOGY:

The Myoff Creek Property is located along the northwestern flank of the Frenchman Cap Dome and is underlain by the Monashee Series which consists of a basal quartzite unit overlain by a succession of interbanded pelitic schist, pelitic gneiss, calc-silicate, and marble. There are two types of carbonatite occurring on the property. Type I is an intrusive phase carbonatite and the Type II is the extrusive phase. All of the tantalum, niobium and rare earth minerals are associated with the intrusive, Type I, phase. The Type II phase, extrusive carbonatite, is virtually barren of mineral of economic importance.

The Type I carbonatite is located on the southern half of the property on the south side of Ratchford Creek. The carbonatite unit has been traced by mapping and trenching for

approximately three kilometres and it varies in width from 20 to 200 metres. The carbonatite strikes generally northwest-southeast and dips from 25 to 45 degrees southwest. The rock weathers to a rough textured, mottled orange brown color and has a well banded salt and pepper pattern. Narrow quartz-feldspar pegmatite dykes cross the carbonatite at various angles. The unit is composed of 70 to 80% calcite with accessory apatite, biotite, amphibole and minor magnetite, sphene, pyrite, pyrrhotite, molybdenum, pyrochlore, monazite and chalcopyrite. It may be locally associated with syenite or nepheline syenite gneiss, and there may be some fenetization.

The Type II extrusive carbonatite has been mapped along the entire 12 kilometre length of the Myoff Creek Property. This mapping was completed by the British Columbia Geological Survey, previous workers in this area and Cross Lake Minerals Ltd. The carbonatite consists of three separate horizons or may be the same horizon in tight isoclinal folds. The unit strikes northwest-southeast and dips 20 to 45 degrees southwest. The extrusive phase is situated approximately 300 metres in the hanging wall and parallel to the intrusive phase. The extrusive carbonatite consists of pyroclastic flow to ash-fall tuff and is thinly banded with tephra blocks 1 to 5 centimetres in size with fenite, albitite and wallrock clasts flattened and aligned along banding. It is medium to coarse grained, grades into the white marble unit, and consists of 80 to 90% calcite with accessory phlogopite, plagioclase, apatite, amphibole and minor magnetite, pyrite, graphite and chalcopyrite.

Both phases of carbonatite are hosted by gneiss and thicken and narrow probably due to structural deformation during metamorphic folding. Mapping the extrusive phase is very

important because it can be used as a marker unit for the location and structural thickening of the intrusive carbonatite which hosts the minerals of economic interest.

TRENCHING PROGRAM:

A Cat 325 excavator was used to rehabilitate eight kilometres of secondary logging road and to trench the prospective carbonatite unit. A total of 346 metres of trenching was completed in a series of four trenches exploring approximately 500 metres of strike length. Of the 346 metres, 276.8 metres of trenching was completed in the carbonatite unit and 69.2 metres completed in the gneiss host rock on either side of the carbonatite and in some minor cross-cutting quartz-feldspar pegmatite dykes. The trenches were excavated to an average depth of 2.5 metres and a width of 3.0 metres. The dimensions of the trenches is set out in the following table.

Trench No.	Length (metres)	Width (metres)	Depth (metres)	Total Volume (cubic metres)
MT-01-1	74.0	3.0	2.5	555.0
MT-01-2	60.0	3.0	2.5	450.0
MT-01-3	67.0	3.0	2.5	502.5
MT-01-4	145.0	3.0	2.5	1,087.5
TOTAL	346.0			2,595m³

Note: The trenches were reclaimed but representative bedrock samples were placed on the side of the reclaimed trench for later viewing and/or metallurgical sampling.

The trenching, including Teck Explorations Limited trenching in 1988, has exposed the carbonatite for a strike length of approximately 1,000 metres. The carbonatite, where trenched, varies in width from 20 to 150 metres and has been mapped up to 200 metres in width. In the 2001 trenching carried out by Cross Lake, the carbonatite is the narrowest, 50.8 metres, at the

north end of the trenching in MT-01-1 and the widest, 120.0 metres, in MT-01-4 at the south end of the trenching area. The carbonatite strikes at 330 to 335 degrees and dips fairly consistently at 35 degrees to the southwest. The host rock on either side is a hard, well-banded gneiss with some minor, narrow (< 1 metre), concordant carbonatite layers. The location of the four trenches is shown on plan no. MC-01-4 and the detailed mapping of the trenches is illustrated on plan no. MC-01-5. The width of the carbonatite in each trench and the weighted assay averages of the rock chip channel samples of the carbonatite, not including the gneiss and minor pegmatite dykes, are set out below. A table of the weighted average calculations for each of the trenches is appended in Section D.

Trench No.	Carbonatite width (m)	Ta ₂ O ₅ Tantalum Pentoxide (ppm)	Nb ₂ O ₅ Niobium Pentoxide (ppm)	La ₂ O ₃ Lanthanum Trioxide (ppm)	Ce ₂ O ₅ Cerium Pentoxide (ppm)	Nd ₂ O ₃ Neodymium Trioxide (ppm)
MT-01-1	50.8	30.0	1411.9	424.1	832.3	325.0
MT-01-2	50.0	28.0	950.7	52.0	536.5	232.4
MT-01-3	56.0	34.6	1063.9	310.1	595.1	255.6
MT-01-4	120.0	37.8	1659.2	451.0	834.8	336.5
Weighted Average	Total 276.8	34.0	1365.4	345.5	732.0	299.2

In general the tantalum is relatively uniformly distributed, the niobium is elevated in the central core, and the rare earth oxides are elevated on the west side or hanging wall of the carbonatite. It is important to note that in MT-01-4 where the carbonatite is widest, the values of tantalum, niobium and rare earth elements are the highest. This is a positive development because further south where the carbonatite is the widest at 200 metres, the elements of economic interest should also increase.

The rock samples were shipped to Activation Laboratories Ltd. in Ancaster, Ontario and were analysed using X-Ray Fluorescence (XRF) for niobium and Instrumental Neutron Activation (INAA) for tantalum and 34 other elements. The analytical reports are appended in Section D.

GEOLOGICAL MAPPING AND ROCK SAMPLING:

During August 2001 a geological mapping and sampling program was completed on the Myoff Creek Property. The results of the mapping program are illustrated on plan no. MC-01-4. The main focus of the mapping was to trace the intrusive phase of carbonatite which contains the elements of economic interest. The intrusive was mapped for a three kilometre strike length on the south side of Ratchford Creek and sampled in several locations. The extrusive phase was also mapped for the entire 12 kilometre length of the property. It was also sampled in several locations. Even though there are no minerals of economic interest in the extrusive phase it is important to map as a marker horizon in order to estimate the location of the intrusive phase and its possible thickening and therefore higher values in the elements of interest. The location of the intrusive phase can be estimated as it is located approximately 300 metres east or in the footwall of the extrusive phase. The following tables summarize the samples collected in the intrusive and extrusive phases with the sample locations being given as UTM coordinates:

Intrusive Carbonatite: Conformable layered intrusion with well developed fenite margins.

Resampled southern Teck Trench: 5 689 632N / 379 360E

Sample No.	Type	Length (m)	Description
347408	chip	0.5	Calc-silicate gneiss
347409	chip	0.2	Fenite/contact
347410	chip	1.0	Carbonatite
347411	chip	1.5	Carbonatite/fenite
347412	chip	0.5	Fenite
347413	chip	0.3	Carbonatite
347414	chip	0.3	Fenite
347415	chip	0.2	Carbonatite
347416	chip	0.8	Carbonatite

Main creek exposure: 5 691 110N / 378 440E

Sample No.	Type	Length (m)	Description
347352	grab	n/a	True thickness of carbonatite: 80 m
347353	grab	n/a	Grab samples at struc base, 10m apart

Main creek exposure - east tributary: 5 690 890N / 378 880E

Sample No.	Type	Length (m)	Description
347101	grab	n/a	Fenite – Carbonatite
347102	grab	n/a	Carbonatite
347103	chip	5.0	Carbonatite
347104	chip	5.0	Carbonatite

Extrusive carbonatite: also named the Mount Grace Carbonatite (MGC). Pyroclastic flow grading to air-fall tuff. Thinly banded, tephra block size typically 1 – 5cm, flattened, aligned along banding. MGC is present as three discrete conformable layers: layer 1 in east (structurally lowest) to layer 3 in west (structurally highest). Combined evidence suggests that the three layers represent three separate volcanic events and are not fold or fault-repeated expressions of a single layer.

Extrusive carbonatite: 5 692 312N / 375 785E

Sample No.	Type	Length (m)	Description
347356	chip	1.0	MGC (layer 1)
347357	chip	1.0	Complex deformation.
347358	chip	1.5	True thickness of carbonatite: est. >15 m
347359	chip	0.8	
347360	chip	0.9	
347361	chip	1.0	

Extrusive carbonatite: 5 692 857N / 376 335E

Sample No.	Type	Length (m)	Description
347418	chip	3.0	MGC (layer 1)
347419	chip	3.0	True thickness of carbonatite: 32 m
347420	chip	3.0	One unsampled (covered) area between P347418 & 19
347421	chip	3.0	Sample lengths represent true thicknesses
347422	chip	3.0	
347423	chip	3.0	
347424	chip	3.0	
347425	chip	3.0	

Extrusive carbonatite: 5 694 220N / 376 287E

Sample No.	Type	Length (m)	Description
347351	grab	N/a	MGC (layer 2)

Extrusive carbonatite: 5 692 269N / 375 589E

Sample No.	Type	Length (m)	Description
347354	chip	1.0	MGC (layer 2)
347355	chip	0.5	

Extrusive carbonatite: 5 691 295N / 375 589E

Sample No.	Type	Length (m)	Description
347427	grab	N/a	MGC (layer 2) South of Ratchford Creek
347428	chip	2.0	MGC (layer 2) South of Ratchford Creek

Extrusive carbonatite: 5 691 145N / 376 391E

Sample No.	Type	Length (m)	Description
347426	Chip	2.0	MGC (layer 3) South of Ratchford Creek

Extrusive carbonatite: 5 693 188N / 375 523E

Sample No.	Type	Length (m)	Description
347417	Chip	1.0	MGC (layer 3)

The assay certificates for this sampling are appended in Section D. It is interesting to note how the extrusive phase of the carbonatite is virtually barren of minerals of economic importance.

The highest grade of tantalum at 123ppm in sample #347352 was located 600 metres northwest of trench MT-01-1. The resampled southern Teck trench was significantly higher in rare earth elements than samples collected elsewhere.

The grab sample #347352 that yielded the high tantalum result was taken where the creek has eroded the overburden so that a true thickness of 35 metres was exposed. In October 2001 a rock saw was used to cut a continuous 35 metre channel on this showing. Seven 5-metre samples were cut and the material was submitted to the Teck Cominco Exploration Research Laboratory in Vancouver for analysis. The assay values and the weighted averages over the entire 35 metres are set out in the following table. The analytical reports are appended in Section D.

Sample No.	Carbonatite width (m)	Ta (ppm)	Nb (ppm)	Ce (ppm)	La (ppm)	Nd (ppm)
347551	5.0	28	350	282	180	160
347552	5.0	28	355	927	434	267
347553	5.0	40	420	654	283	297
347554	5.0	16	533	472	220	252
347555	5.0	21	720	619	308	258
347556	5.0	<3	770	280	143	186
347557	5.0	20	827	225	128	145
Weighted Average	Total 35.0	22	568	494	242	224
		Ta₂O₅ Tantalum Pentoxide (ppm)	Nb₂O₅ Niobium Pentoxide (ppm)	Ce₂O₅ Cerium Pentoxide (ppm)	La₂O₃ Lanthanum Trioxide (ppm)	Nd₂O₃ Neodymium Trioxide (ppm)
		27	812	609	283	262

These values are close to those obtained in the trenching thus emphasizing the consistency of grade in the intrusive carbonatite.

CHECK ASSAYS:

Fifteen selected sample rejects were sent to Teck Cominco Exploration Research Laboratory in Vancouver, B.C. for check assaying in order to provide a comparison with the earlier results from Activation Laboratories Ltd. It should be noted that the analyses completed by Teck Cominco were by X-Ray fluorescence pressed pellet while Activation Labs used instrumental neutron activation for tantalum and 34 other elements and X-Ray fluorescence for niobium. There is excellent correlation between the assays for niobium and cerium and satisfactory correlation between those results for tantalum, lanthanum and neodymium. A table of comparison is appended in Section D.

PETROGRAPHIC STUDIES:

Two petrographic studies were carried out by Harris Exploration Services, the first on a rock sample of carbonatite from trench MT-01-4 and the second on four heavy mineral slides made from gravity separation using tetrabromoethane of the reject material from four rock channel samples from the trenches. The two reports are appended in Section E.

The first petrographic report was on two thin sections from a carbonatite rock sample collected from trench MT-01-4 at 105 metres from the east end of the trench. Both of the slides are similar consisting of aggregates of calcite forming a matrix to individual grains and local clumpy segregations of biotite, amphibole and apatite. Minor amounts of sulphides consisting of pyrrhotite and pyrite and iron-titanium oxides also occur.

The second report describes the results of four heavy mineral slides made by gravity separation using tetrabromoethane on the rejects from four rock channel samples from the trenches. All four of the slides are similar in composition of pale green amphibole, apatite, magnetite, ilmenite and various iron sulphides in varied relative proportions. Although the minerals containing the niobium and tantalum were not positively identified, it was concluded that the elements are occurring in iron and iron/titanium oxides. The mode of occurrence of rare earth element minerals was not determined.

CONCLUSIONS:

- Cross Lake Minerals Ltd. owns 100% of 58 mineral claims totalling 96 claim units and covering 2,400 hectares of a promising intrusive carbonatite belt hosting tantalum, niobium, phosphate and rare earth elements.

- Access to the Myoff Creek Property is excellent by using the main and secondary logging and hydro transmission line service roads that cross the claims. The B.C. Hydro 500 KVA power transmission line crosses the claims as well.
- The town of Revelstoke, a source of experienced mining personnel and equipment, is located 55 kilometres southeast of the property. The Trans-Canada Highway and Canadian Pacific Railway are located 40 kilometres south of the claims.
- The elevations of the property range from 610 to 2,040 metres and the main area of trenching is located on relatively flat topography at an elevation of 1,400 metres. This area has been clear-cut and can be worked at all times of the year.
- The intrusive carbonatite with the elements of economic interest has been explored for a strike length of 3,000 metres over widths from 20 to 150 metres. The carbonatite has been trenched, channel sampled and mapped over a strike length of 1,000 metres. The thickness, dip and relatively flat topography where the unit has been trenched are favorable for a possible open pit mining scenario.
- The extrusive carbonatite, an important marker horizon, has been mapped and sampled for the 12 kilometre length of the property. This unit can be used to locate the intrusive phase because it is located 300 metres in the hanging wall.
- There are several high priority areas on the property to explore for higher grade and thicker portions of the intrusive carbonatite, especially where mapping has identified stratigraphic thickening due to folding during metamorphic deformation.

RECOMMENDATIONS:

- Continue to complete petrographic and metallurgical studies to identify the minerals that host the elements of economic importance and determine levels of recovery.
- Explore by surface mapping, soil and rock sampling the strike extensions of the intrusive phase of the carbonatite.
- Complete exploration drilling where mapping has identified structural thickening from metamorphic deformation to intersect the stratigraphic horizon of the intrusive carbonatite.
- For the next phase of work, complete an NQ core size diamond drill program on 100 metre sections delineating the carbonatite to a 100 metre vertical depth along the 1,000 metre strike length that has been trenched. Additional drilling is recommended in the area located south of the trenches where geological mapping has identified the carbonatite to be 200 metres in thickness.

Respectfully submitted,



Jim Miller-Tait, P.Ge.

LIST OF REFERENCES:

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Pilcher, S.H. (1983): Report on the Geology and Geochemical Surveys and Physical Work, Ren I, II, III, and IV Claims, Kamloops Mining Division, B.C.; Assessment Report 11,639 dated October 4, 1983.

STATEMENT OF QUALIFICATIONS:

For: Jim Miller-Tait of 828 Whitchurch Street, North Vancouver, B.C. V7L 2A4


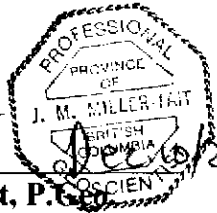
I graduated from the University of British Columbia with a Bachelor of Sciences Degree in Geology (1987);

I have been practicing my profession as a geologist in mineral exploration and mining continuously since 1987;

I am a fellow in good standing with the Geological Association of Canada;

I am a registered member in good standing as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia;

The observations, conclusions and recommendations contained in the report are based on field examinations, personal sampling, and the evaluation of results of the exploration programs completed by the operator and owner of the property.



Jim Miller-Tait, P. Geoscientist

SECTION B: PROPERTY

MYOFF CREEK	SCHEDULE OF MINERAL CLAIMS		
PROVINCE: British Columbia	CLAIMS: 58	UNITS: 96	AREA: 2400 ha
MINING DIVISION: Kamloops	NTS: 82M/7E, W		BCGS: 082M.037
LOCATION: 55 km northwest of Revelstoke, near the confluence of Myoff Creek and Ratchford Creek.	LATITUDE: 51°21.5'		LONGITUDE: 118°44.5'
	UTM: ZONE 11	5 691 000N	378 500E
MAP SHEET (1:250 000): 82M-Seymour Arm (1:50 000): 82M/7-Ratchford Creek	PROPERTY INTEREST: Cross Lake Minerals Ltd. – 100%		

CLAIM NAME	TENURE NUMBER	UNITS	RECORD DATE (yyyy-mm-dd)	DUE DATE (yyyy-mm-dd)	ANNUAL WORK REQUIRED	RECORDED HOLDER
M 2	383634	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 3	383635	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 4	383636	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 5	383637	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 7	383638	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 8	383639	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 9	383640	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 10	383641	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 11	383642	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 12	383643	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 20	383644	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
M 21	383645	01	2001-01-30	2006-01-30	\$200.00	Cross Lake Minerals Ltd.
N 1	384276	20	2001-02-16	2006-02-16	\$4000.00	Cross Lake Minerals Ltd.
N 2	384277	01	2001-02-16	2006-02-16	\$200.00	Cross Lake Minerals Ltd.
N 3	384278	01	2001-02-16	2006-02-16	\$200.00	Cross Lake Minerals Ltd.
N 4	384279	01	2001-02-16	2006-02-16	\$200.00	Cross Lake Minerals Ltd.
N 5	384280	01	2001-02-16	2006-02-16	\$200.00	Cross Lake Minerals Ltd.
N 6	384281	01	2001-02-16	2006-02-16	\$200.00	Cross Lake Minerals Ltd.
N 7	384282	01	2001-02-16	2006-02-16	\$200.00	Cross Lake Minerals Ltd.
T 1	384275	20	2001-02-17	2005-02-17	\$4000.00	Cross Lake Minerals Ltd.
T 5	384283	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 6	384284	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 7	384285	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 8	384286	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 9	384287	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 10	384288	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 11	384289	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 12	384290	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 13	384291	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 14	384292	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 15	384293	01	2001-02-17	2005-02-17	\$200.00	Cross Lake Minerals Ltd.
T 16	384294	01	2001-02-17	2006-02-17	\$200.00	Cross Lake Minerals Ltd.
T 17	384295	01	2001-02-17	2006-02-17	\$200.00	Cross Lake Minerals Ltd.
T 18	384296	01	2001-02-17	2006-02-17	\$200.00	Cross Lake Minerals Ltd.
T 19	384297	01	2001-02-17	2006-02-17	\$200.00	Cross Lake Minerals Ltd.

CLAIM NAME	TENURE NUMBER	UNITS	RECORD DATE (yyyy-mm-dd)	DUE DATE (yyyy-mm-dd)	ANNUAL WORK REQUIRED	RECORDED HOLDER
T 20	384298	01	2001-02-17	2006-02-17	\$200.00	Cross Lake Minerals Ltd.
T 21	384299	01	2001-02-17	2006-02-17	\$200.00	Cross Lake Minerals Ltd.
TN 1	389120	01	2001-08-18	2006-08-18	\$200.00	Cross Lake Minerals Ltd.
TN 2	389121	01	2001-08-18	2006-08-18	\$200.00	Cross Lake Minerals Ltd.
TN 3	389122	01	2001-08-18	2006-08-18	\$200.00	Cross Lake Minerals Ltd.
TN 4	389123	01	2001-08-18	2006-08-18	\$200.00	Cross Lake Minerals Ltd.
TN 5	390359	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 6	390360	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 7	390361	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 8	390362	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 9	390363	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 10	390364	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 11	390365	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 12	390366	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 13	390367	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 14	390368	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 15	390369	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 16	390370	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 17	390371	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 18	390372	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 19	390373	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 20	390374	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
TN 21	390375	01	2001-10-04	2003-10-04	\$100.00	Cross Lake Minerals Ltd.
58 claims		96			\$17500.00	

ASSESSMENT WORK SUMMARY							
Date of Filing (yyyy-mm-dd)	Work Filed \$	New Work Applied \$	PAC Credits Applied	PAC Credits Saved	Total PAC Credits	Date of Approval (yyyy-mm-dd)	Event Number
2002-01-23	N/G	-	-	-	-		3175664
2002-01-23	35093.13	35000.00	0	93.13	-		3175665

SECTION C: EXPENDITURES

Item	Work Performed	Quantities / Rates	Amount
Project Geologist: J. Miller-Tait, P.Geo.	Project supervision, geological mapping and channel sampling Period: May 28-Jun 4, 2001 Oct 1-5, 2001	8 days @ \$350.00 5 days @ \$350.00	\$2800.00 <u>1750.00</u> 4550.00
Field Geologist: C. Church	Geological mapping, sampling and channel sampling Period: Aug 13-20, 2001 Oct 1-5, 2001	8 days @ \$267.50 5 days @ \$267.50	2140.00 <u>1337.50</u> 3477.50
Field Geologist: G. Gibson	Geological mapping and sampling Period: Aug 13-19, 2001	7 days @ \$267.50	1872.50
Transportation: Vancouver to property, onsite and return	4x4 pickup truck: Period: May 28-Jun 4, 2001 Aug 13-20, 2001 Oct 1-5, 2001	8 days @ \$105.00 8 days @ \$105.00 5 days @ \$105.00	840.00 840.00 <u>525.00</u> 2205.00
Accommodation and Meals	Period: May 28-Jun 4, 2001 Aug 13-20, 2001 Oct 1-5, 2001	1 person in camp 2 persons in hotel 2 persons in motel	204.10 1274.90 <u>670.32</u> 2149.32
Trenching Contractor: Hoedown Creek Resources Ltd.	Mobilization/demobilization from Lillooet to site and return. Trenching utilizing a Cat 325 excavator during the period from May 29 to Jun 3, 2001	Transport charges 59 hours @ \$133.75	1579.88 <u>7891.25</u> 9471.13
Field Supplies and Equipment Rentals	Camp materials, sampling supplies and radio equipment Period: May 28-Jun 4, 2001 Aug 13-20, 2001 Oct 1-5, 2001	Rock saw and pump	78.99 224.26 <u>965.98</u> 1269.23
Freight: to Activation Labs in Ancaster, Ontario	Sample shipments: Westjet Air Cargo Greyhound Courier Express Greyhound Courier Express Reimer Express Lines Ltd.	Jun 04 2001 Jun 04 2001 Jun 07 2001 Aug 21 2001	153.99 159.97 56.76 <u>91.78</u> 462.50

Item	Work Performed	Quantities / Rates	Amount
Analytical Services:			
Activation Labs	Nb, Ta and rare earth analysis	109 samples	4091.99
Teck Cominco Lab	Nb, Ta and rare earth analysis	27 samples	800.36
ALS Chemex Labs	ICP-41 element analysis	1 sample	45.95
			4938.30
Petrographic Services:			
Harris Exploration	Petrographic examination of 2 thin sections.	2 samples	278.20
Services	Mineralogical microscopic examination of samples	6 samples	877.40
			1155.60
Report Preparation:	J. Miller-Tait, P.Geo.	4 days @ \$350.00	1400.00
Base Map Preparation,	Tindall Geoservices Inc.	15.75 hrs. @ \$42.80	674.10
Data Plotting and	Integrex Engineering	32.5 hrs. @ \$42.80	1391.00
Geological Map		Printing expenses	76.95
Preparation			2142.05
Total			\$35093.13

Expenditure Apportionment:

Work Program	Mineral Claims	Work Quantities	Expenditure
Phase 1: Trenching	M8	4 trenches / 346 metres 73 samples	\$19277.62
Phase 2: Geological Mapping and Sampling	M 2-5, 7-12, 20 and 21 N 2-7 T 10-21; TN 1-21	Mapping over an area of 1500 hectares; 36 samples	\$9981.31
Phase 3: Channel Sampling	M2	1 saw-cut channel; 35 metres; 7 samples	\$5834.20
Total			\$35093.13

SECTION D: ANALYTICAL RESULTS

1. Analyses carried out by Activation Laboratories Ltd. of Ancaster, Ontario
 - Certificate of Analysis #22125 dated June 22, 2001
 - Certificate of Analysis #22137 dated June 27, 2001
 - Certificate of Analysis #22125B dated August 22, 2001
 - Certificate of Analysis #22698 dated September 11, 2001
 - Statement of Analytical Procedures

2. Analyses carried out by Teck Cominco Exploration Research Laboratory of Vancouver, B.C.
 - Certificate of Analysis #V01-0350R dated September 27, 2001
 - Certificate of Analysis #V01-0407H dated October 5, 2001
 - Certificate of Analysis #V01-0455R dated October 23, 2001

3. Analyses carried out by ALS Chemex Labs of North Vancouver, B.C.
 - Certificate of Analysis A0121300 dated August 7, 2001
 - Statement of Analytical Procedures

4. Trench Sampling Weighted Average Calculations
 - Trench MT-01-1
 - Trench MT-01-2
 - Trench MT-01-3
 - Trench MT-01-4

5. Check Assay Comparison Charts:
 - Element-1: Original analysis by Activation Laboratories Ltd.
 - Element-2: Check analysis by Teck Cominco Exploration Research Laboratory
 - Tantalum
 - Niobium
 - Cerium
 - Lanthanum
 - Neodymium

JUL 11

Quality Analysis...



Innovative Technologie

Invoice No.: 22125
 Work Order: 22353
 Invoice Date: 22-JUN-01
 Date Submitted: 05-JUN-01
 Your Reference: MYOFF CREEK/200
 Account Number: C026

CROSS LAKE MINERALS LTD.
 240-800 WEST PENDER ST.
 VANCOUVER, B.C.
 V6C 2V6
 ATTN: JIM MILLER-TAIT

CERTIFICATE OF ANALYSIS

30 ROCKS (PREP.REV3) were submitted for analysis.

The following analytical packages were requested. Please see our current fee schedule for elements and detection limits.

REPORT 22125 CODE 1D ENHANCED INAA(INAAGEO.REV1)
 REPORT 22125 B CODE 4C1-XRF PRESSED PELLET

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

CERTIFIED BY :

DR E.HOFFMAN/GENERAL MANAGER

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9611

E-MAIL info@actlabs.com ACTLABS GROUP WEBSITE <http://www.actlabs.com>

Activation Laboratories Ltd. Work Order: 22353 Report: 22125

Sample ID	Au ppb	Ag ppm	As ppm	Ba ppm	Br ppm	Ca %	Co ppm	Cr ppm	Cs ppm	Fe %	Hf ppm	Hg ppm	Ir ppb	Mo ppm	Na %	Ni ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm	Sn %	Sr %	Ta ppm	Th ppm	U ppm	W ppm	Zn ppm	La ppm	Ce ppm
203194	-2	-5	-0.5	2000	-0.5	3	11	61	-1	4	4	-1	-5	-1	2.72	-85	-15	-0.1	42.6	-3	-0.02	-0.05	4	9.4	3.4	-1	185	120	225
203195	-2	-5	-0.5	1200	-0.5	24	37	19	-1	5.37	2	-1	-5	-1	0.22	-67	-15	-0.1	29.6	-3	-0.03	0.59	51.4	18.6	31	-1	-50	404	679
203196	-2	-5	-0.5	1900	-0.5	6	7	32	-1	3.15	5	-1	-5	-1	2.61	-94	77	-0.1	43.8	-3	-0.02	0.1	4.1	16	2.2	-1	165	100	184
203197	-2	-5	-0.5	1300	-0.5	12	11	44	-1	3.46	3	-1	-5	-1	1.22	-94	66	0.1	39.9	-3	-0.02	0.3	32.9	14.3	28.1	-1	95	242	446
203198	-2	-5	-0.5	1400	-0.5	13	10	30	-1	3.54	3	-1	-5	-1	0.97	-76	58	-0.1	26.8	-3	-0.02	0.27	46.8	35.8	20.2	-1	95	211	447
203199	-2	-5	1.6	1300	-0.5	13	12	33	-1	3.58	2	-1	-5	-1	1.12	-68	71	-0.1	24.5	-3	-0.02	0.4	18.6	17	8.2	-1	147	200	383
203200	4	-5	1.4	730	-0.5	18	12	36	2	2.98	2	-1	-5	-1	0.68	-89	-15	-0.1	19.2	-3	-0.02	0.34	49.9	12.6	40.7	-1	-50	288	524
255701	6	-5	3	1100	-0.5	5	13	33	-1	5.21	3	-1	-5	5	1.18	-76	135	-0.1	34.2	-3	-0.02	0.09	9.7	30.1	8	-1	288	194	389
255702	6	-5	1.7	2000	-0.5	9	11	50	2	3.47	-1	-1	-5	39	1.48	-66	60	-0.1	10.7	-3	-0.02	0.2	0.5	12.3	-0.5	-1	175	206	382
255703	-2	-5	-0.5	1700	-0.5	3	2	111	-1	0.7	1	-1	-5	4	3.17	-53	96	-0.1	3.3	-3	-0.01	-0.05	1.3	1.8	0.6	-1	-50	14.9	30
255704	-2	-5	1.2	1300	-0.5	12	8	21	2	3.85	2	-1	-5	9	1.02	-57	60	-0.1	19.6	-3	-0.01	0.31	12.3	7.4	6	-1	-50	89.4	190
255705	3	-5	1.9	1300	-0.5	13	7	13	-1	4.31	6	-1	-5	5	2.21	-68	58	-0.1	44.1	-3	-0.01	0.31	18.1	7.5	5	-1	189	334	642
255706	3	-5	-0.5	1700	-0.5	20	12	12	4	4.76	2	-1	-5	34	0.43	-70	33	-0.1	53.7	-3	-0.01	0.56	27.6	18.7	15.5	-1	106	277	537
255707	-2	-5	1.5	1800	-0.5	8	12	20	3	4.73	18	-1	-5	12	3.63	-50	34	-0.1	35.7	-3	-0.01	0.2	15.8	24.1	7.4	-1	130	170	336
255708	-2	-5	-0.5	1100	-0.5	29	10	6	4	4.17	4	-1	-5	9	0.22	-50	-15	-0.1	40.5	-3	-0.01	0.57	11.7	21.2	7.9	-1	-50	376	686
255709	-2	-5	1.3	1200	-0.5	25	14	6	-1	8.13	2	-1	-5	28	0.19	-50	-15	-0.1	30.8	-3	-0.01	0.47	9.8	31.4	4.8	-1	95	288	544
255710	-2	-5	1.8	1600	-0.5	23	12	12	-1	5.13	4	-1	-5	24	0.36	-50	-15	-0.1	46.9	-3	-0.01	0.49	20.4	37.5	23.8	-1	-50	460	883
255711	-2	-5	-0.5	530	-0.5	18	19	41	-1	9.69	1	-1	-5	46	0.23	-50	55	-0.1	27.3	-3	-0.01	0.39	21.2	41.5	11.9	-1	182	390	710
255712	-2	-5	3.6	1800	-0.5	27	20	-5	4	5.68	3	-1	-5	19	0.21	-50	-15	-0.1	27.9	-3	-0.01	0.54	37.2	52	30	-1	-50	511	824
255713	-2	-5	-0.5	1600	-0.5	21	12	-5	-1	3.84	1	-1	-5	21	1.14	-50	-15	-0.1	23.3	-3	-0.01	0.37	7.7	12	6.5	-1	-50	401	632
255714	-2	-5	-0.5	810	-0.5	5	14	95	-1	4.77	7	-1	-5	7	4.78	-50	-15	-0.1	46.9	-3	-0.01	0.08	18.5	16	14.3	-1	-50	128	242
255715	-2	-5	-0.5	1400	-0.5	7	24	93	-1	4.96	12	-1	-5	26	3.55	-50	90	-0.1	28.7	-3	-0.01	0.15	25.8	13.5	27.4	-1	144	87.3	175
255716	-2	-5	-0.5	1800	-0.5	24	19	75	-1	5.22	5	-1	-5	-1	0.46	-50	-15	-0.1	28.8	-3	-0.02	0.4	42.5	29	29.3	-1	-50	288	610
255717	-2	-5	-0.5	2900	-0.5	28	18	7	-1	6.73	10	-1	-5	-1	0.25	-50	-15	-0.1	25.7	-3	-0.02	0.37	28.7	18.3	19.8	-1	147	416	808
255718	-2	-5	-0.5	2800	-0.8	28	17	-5	-1	3.31	4	-1	-5	-1	0.2	-50	-15	-0.1	31.6	-3	-0.02	0.46	64.3	27.8	56.3	-1	-50	561	1050
255719	-2	-5	2.6	4100	-0.5	22	8	-5	-1	2.46	-1	-1	-5	-1	0.52	-80	-15	-0.1	23.6	-3	-0.02	0.58	23.5	15.9	29.2	-1	-50	1010	1670
255720	4	-5	-0.5	3100	-0.5	19	19	13	-1	5.06	-1	-1	-5	-1	0.38	-80	-15	-0.1	30.6	-3	-0.02	0.4	86.6	26.6	80.6	-1	98	696	1150
255721	3	-5	-0.5	3200	-0.5	11	26	31	-1	6.12	5	-1	-5	-1	0.84	-80	-15	-0.1	42.2	-3	-0.02	0.27	62.4	27.2	76	-1	111	543	951
255722	-2	-5	4.6	1200	-0.5	24	8	-5	-1	3.73	-1	-1	-5	16	0.37	-80	-15	-0.1	28.6	-3	-0.02	0.41	11.2	16.4	15.8	-1	-50	881	1170
255723	-2	-5	3.6	470	-0.5	17	5	-5	-1	3.95	2	-1	-5	-1	0.75	-83	-15	-0.1	42.8	5	-0.02	0.38	2.5	23	-0.5	-1	-50	431	725
TAN-1-2	-9	-7	31.1	-190	-1.6	-2	-1	-7	828	-0.1	26	-2	-5	-1	63	-359	2660	19.1	7.6	-6	-0.07	-0.05	2360	5	24.2	-3	-68	7.2	-3
TAN-1-1	-11	-7	27.5	-170	-2.1	-2	-2	-7	828	-0.09	24	-2	-5	-1	4.41	-364	2750	19.6	7	-7	-0.07	-0.05	2360	4.7	23.7	-4	-63	6.7	-3
DMMAS-18-117	488	-5	2040	360	2.6	7	64	157	-1	7.96	3	-1	-5	-2	0.75	449	-15	3.4	20.8	-3	-0.03	-0.05	-0.8	1.3	-0.5	21	304	13.3	25
DMMAS-18-117	472	-5	2010	450	2.5	7	59	158	-1	8.07	3	-1	-5	-1	0.76	-64	47	11.5	21.2	-3	-0.02	-0.05	-0.6	1.2	-0.5	19	291	12.3	22
DMMAS-18-116	634	-5	2170	450	3	8	66	158	-1	8.59	2	-1	-5	-1	0.77	-57	54	13.2	21.7	-3	-0.02	-0.05	-0.5	1.3	-0.5	17	265	12.7	24
TAN-1 Cert								830							4.6		2700						2360		23.8				
A d Value-DMMAS-18B	544+-72		2020+-224	435+-150	2.5+-1.5	7+-2	58+-15	151+-20		8.05+-0.85	2+-1				0.74+-0.48		38+-10	12+-3	20.5+-3.4					1.5+-0.5		19+-2	250+-50	12.2+-1.3	23+-3

Accepted

Sample ID	Nd ppm	Sm ppm	Eu ppm	Tb ppm	Yb ppm	Lu ppm	Mass g
203194	98	13.8	4.5	0.5	1	0.15	1.203
203195	261	39.7	10.7	2.7	2.6	0.39	1.416
203196	75	12.2	3.1	0.5	0.6	0.1	1.428
203197	195	30.5	8.4	2	1.6	0.26	1.555
203198	225	37.2	9.5	2.2	1.5	0.21	1.243
203199	167	26.9	8	1.7	1.5	0.2	1.412
203200	234	36.5	9.6	2.1	2.2	0.3	1.46
255701	171	26	7.4	1.6	1.2	0.13	1.274
255702	150	24.5	7.5	1.5	0.9	0.14	1.38
255703	9	15	0.5	-0.5	0.2	-0.05	1.367
255704	81	14.6	3.6	0.9	0.9	0.14	1.227
255705	300	42.1	11	2	1.8	0.26	1.42
255706	248	34.4	9.8	2.1	2.1	0.31	1.401
255707	168	24.1	6.6	1.3	1.8	0.26	1.31
255708	302	37.4	11.1	2.4	2.9	0.41	1.395
255709	262	38.9	10.6	2.3	2.5	0.36	1.307
255710	400	58.2	17.5	3.8	3.2	0.49	1.337
255711	330	44.3	11.4	2.4	2	0.3	1.557
255712	323	44.6	12.7	2.6	2.8	0.42	1.505
255713	240	27.9	7.2	1.4	1.2	0.19	1.417
255714	107	16	4.1	1.2	0.8	0.13	1.225
255715	75	12.4	3	0.9	1.2	0.17	1.306
255716	290	44.2	12	2.7	2.8	0.42	1.277
255717	360	48.5	12.7	3	2.8	0.42	1.258
255718	452	61.5	16.3	4.2	3.5	0.53	1.234
255719	615	70.1	17.1	3.7	3.4	0.5	1.316
255720	469	56	14.9	3.9	2.7	0.4	1.225
255721	427	54.5	14.8	3.3	3.3	0.45	1.311
255722	372	36.2	9	1	1	0.15	1.351
255723	266	33.2	7.7	2	1.5	0.23	1.239
TAN-1-2	-5	2.4	-0.2	-0.5	-0.3	-0.05	0.3
TAN-1-1	-5	2.4	-0.2	-0.5	-0.3	-0.05	0.3
DMMAS-18-117	12	4.1	1.2	-0.5	3.7	0.55	1.451
DMMAS-18-117	11	4	1.2	-0.5	3.9	0.62	1.451
DMMAS-18-116	12	4.1	1.3	0.7	3.7	0.57	1.318
TAN-1 Cert							
A d Value-DMMAS-18B	11+-3	4.1+-0.5	1.2+-0.2	0.8+-0.35	3.6+-0.6	0.54+-0.05	

TRENCH
MT-01-4



Sample	Nb ppm
203194	166
203195	799
203196	407
203197	735
203198	1118
203199	838
203200	515
255701	1402
255702	474
255703	70
255704	1699
255705	3211
255706	2140
255707	1843
255708	1701
255709	1559
255710	1857
255711	1564
255712	2288
255713	526
255714	347
255715	513
255716	554
255717	331
255718	801
255719	329
255720	1241
255721	690
255722	648
255723	855

TRENCH
MT-01-4
↓
Y

Standard	Nb ppm
SY-2	29
SY-2	30
SY-2	28
SY-2 Cert.	29
SY-3	146
SY-3 Cert.	148
OKA-2	442
OKA-2	440
AGV-1	15
AGV-1 Cert.	15
JG-1A	12
JG-1A Cert.	12
LKSD-1	5
LKSD-1 Cert.	7
Monitor	2145

JUL 11 2

Quality Analysis...



Innovative Technology

Invoice No.: 22137
 Work Order: 22380
 Invoice Date: 27-JUN-01
 Date Submitted: 08-JUN-01
 Your Reference: MYOFF CREEK
 Account Number: 3086

CROSS LAKE MINERALS LTD.
 240-800 WEST PENDER ST.
 VANCOUVER, B.C.
 V6C 2V6
 ATTN: JIM MILLER-TAIT

CERTIFICATE OF ANALYSIS

43 ROCKS (PREP.REV3.1) were submitted for analysis.

The following analytical packages were requested. Please see our current fee schedule for elements and detection limits.

REPORT 22137 CODE 1D ENH'D INAA (INAAGEO.REV1)
 REPORT 22137 B 4C1-XRF PRESSED PELLET

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CERTIFIED BY :

DR. E. HOFFMAN / GENERAL MANAGER

Activation Laboratories Ltd. Work Order: 22380 Report: 22137

Sample ID	Au ppb	Ag ppm	As ppm	Ba ppm	Br ppm	Ca %	Co ppm	Cr ppm	Cs ppm	Fe %	Hf ppm	Hg ppm	Ir ppb	Mo ppm	Na %	Ni ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm	Sn %	Sr %	Ta ppm	Th ppm	U ppm	W ppm	Zn ppm	La ppm	Ce ppm		
TRENCH																															
203151	-2	-5	-0.5	3300	-0.5	8	15	53	-1	4.24	5	-1	-5	3	3.58	-57	74	-0.1	27	-3	-0.01	0.23	13.2	20.4	4.2	-1	103	193	348		
203152	-2	-5	-0.5	2000	-0.5	21	10	7	2	2.87	2	-1	-5	6	0.44	-50	48	-0.1	21.6	-3	-0.01	0.53	7.9	19.9	1.7	-1	88	231	462		
203153	-2	-5	-0.5	1900	-0.5	16	19	42	2	4.83	4	-1	-5	6	2.13	-62	72	-0.1	36	-3	-0.01	0.49	13.3	14.5	4	-1	100	238	463		
203154	-2	-5	-0.5	700	-0.5	21	12	-5	-1	2.42	-1	-1	-5	7	0.12	-45	-15	-0.1	19	-3	-0.01	0.47	44.4	17.7	14.4	-1	58	157	337		
203155	-2	-5	-0.5	2400	-0.5	3	12	70	-1	4.2	4	-1	-5	-1	4.18	-67	64	-0.1	50.5	-3	-0.01	0.08	-0.5	11	2.7	-1	-50	211	371		
203156	-2	-5	1.2	290	-0.5	21	8	-5	-1	2.64	-1	-1	-5	6	0.13	-47	-15	-0.1	20.4	-3	-0.01	0.49	26.5	21.6	10.1	-1	-50	195	422		
203157	5	-5	-0.5	1300	-0.5	11	16	38	-1	4.89	4	-1	-5	5	1.7	-63	80	-0.1	48.1	-3	-0.01	0.34	19.7	17	9.5	-1	95	201	416		
203158	7	-5	-0.5	1100	-0.5	14	11	30	-1	3.62	3	-1	-5	9	1.09	-53	73	-0.1	30.7	-3	0.08	0.45	22.1	24.7	10.8	-1	77	163	354		
203159	-2	-5	1.2	530	-0.5	18	12	38	2	3.96	2	-1	-5	7	0.99	-55	62	-0.1	27.3	-3	-0.01	0.46	6.3	23.4	3	-1	87	211	459		
203160	-2	-5	-0.5	970	-0.5	21	13	42	-1	4.66	3	-1	-5	9	0.34	314	-15	-0.1	36.7	-3	-0.01	0.62	45	44.2	27.1	-1	-50	286	597		
203161	-2	-5	-0.5	1600	-0.5	21	17	39	-1	5.37	3	-1	-5	8	0.48	-63	51	-0.1	28.4	-3	-0.01	0.6	21.7	42	11.5	-1	63	371	688		
203162	3	-5	1.7	1100	-0.5	26	16	24	-1	3.78	2	-1	-5	-1	0.77	-61	41	-0.1	23.3	-3	-0.01	0.63	24.1	17.4	30.3	-1	106	387	731		
203163	5	-5	-0.5	1100	-0.5	29	15	-5	-1	4.85	4	-1	-5	18	0.16	255	-15	-0.1	25.2	-3	-0.01	0.46	11.9	17.4	2	-1	128	475	884		
203164	-2	-5	1.9	1000	-0.5	15	15	49	-1	4.98	4	-1	-5	25	0.6	-56	67	-0.1	24.9	-3	0.05	0.31	17.7	24.1	12	-1	108	252	490		
203165	-2	-5	-0.5	1800	-0.5	25	14	17	2	5.07	1	-1	-5	18	0.71	-62	-15	-0.1	21.2	-3	-0.01	0.48	15.4	12.1	12.9	-1	108	471	855		
203166	-2	-5	-0.5	1800	-0.5	25	14	17	2	5.07	1	-1	-5	18	0.71	-62	-15	-0.1	21.2	-3	-0.01	0.48	15.4	12.1	12.9	-1	108	471	855		
203167	6	-5	-0.5	4000	-0.5	7	23	82	2	8.12	6	-1	-5	13	4.05	275	-15	-0.1	42.8	-3	-0.01	0.19	35.6	53.9	9.3	-1	-50	423	710		
203168	6	-5	-0.5	1800	-0.5	-1	10	105	-1	4.15	5	-1	-5	-1	4.4	-60	-15	-0.1	35.3	-3	-0.01	0.13	4	11.1	3.8	-1	-50	113	227		
203169	3	-5	-0.5	2200	-0.5	14	13	89	-1	3.89	3	-1	-5	-1	1.56	-61	84	-0.1	39.2	-3	0.06	0.34	31.7	19.9	32.6	-1	86	169	369		
203170	2	-5	-0.5	470	-0.5	22	8	35	1	2.99	1	-1	-5	10	0.17	194	29	-0.1	16.6	-3	-0.01	0.52	10.1	28.4	4.7	-1	67	198	450		
203171	-2	-5	1.7	2500	-0.5	20	22	180	-1	7.03	6	-1	-5	25	0.43	-64	-15	-0.1	31.1	-3	-0.01	0.6	79.4	71.5	50.5	-1	-50	289	608		
203172	2	-5	-0.5	1300	-0.5	18	13	8	-1	4.15	2	-1	-5	30	0.13	-76	-15	-0.1	20.9	-3	-0.02	0.55	20.3	41.9	14.7	-1	123	621	1060		
203173	-2	-5	-0.5	1100	-0.5	9	7	80	-1	4.41	9	-1	-5	8	2.33	-82	-15	-0.1	74.8	-3	-0.02	0.26	7.6	21.3	6.6	-1	172	640	998		
203174	2	-5	-0.5	910	-0.5	8	7	32	1	3.1	6	-1	-5	9	1.7	-45	27	-0.1	29.3	-3	-0.01	0.2	8.2	45.3	8.1	2	82	145	282		
203175	-2	-5	-0.5	920	-0.5	14	17	44	-1	4.57	2	-1	-5	8	0.88	-50	48	-0.1	22.1	-3	-0.01	0.24	24.4	24.6	16.6	-1	79	201	384		
203176	-2	-5	-0.5	1000	-0.5	14	10	36	-1	3.06	2	-1	-5	8	1.08	-44	-15	-0.1	14.1	-3	-0.01	0.23	12.1	17.3	7.8	-1	93	190	393		
203177	-2	-5	1.9	1000	-0.5	20	12	-5	-1	4.32	3	-1	-5	5	0.13	-50	-15	-0.1	21.6	-3	-0.01	0.32	12.4	13.9	8.9	-1	95	305	556		
203178	-2	6	-0.5	1500	-0.5	18	15	56	-1	3.78	3	-1	-5	14	0.5	262	-15	-0.1	22.6	-3	-0.01	0.25	23.3	16	24.7	-1	67	315	588		
203179	-2	-5	-0.5	980	-0.5	9	7	42	-1	3.28	4	-1	-5	4	3.38	-50	-15	-0.1	32.4	-3	-0.01	0.14	8.3	12.3	5.6	-1	-50	157	278		
203180	-2	-5	-0.5	1300	-0.5	16	10	5	-1	3.94	2	-1	-5	17	0.4	-48	42	-0.1	18.5	-3	-0.01	0.28	19.4	20.4	22.5	-1	-50	254	454		
203181	-2	-5	-0.5	2100	-0.5	4	31	129	3	7.56	3	-1	-5	-1	2.76	-47	91	-0.1	25.8	-3	-0.01	0.05	-0.5	2.3	-0.5	-1	137	45.9	86		
203182	-2	-5	-0.5	1500	-0.5	24	13	-5	-1	2.46	5	-1	-5	5	0.18	-51	-15	-0.1	18.4	-3	-0.01	0.47	98.9	24.8	15.1	-1	-50	277	514		
203183	4	-5	-0.5	1200	-0.5	5	13	64	2	4.56	3	-1	-5	13	1.62	286	101	-0.1	50	-3	-0.01	0.1	7.9	10.6	3	-1	206	183	333		
203184	2	-5	-0.5	990	-0.5	18	7	-5	-1	2	-1	-1	-5	18	0.52	-45	-15	-0.1	18.9	-3	0.01	0.29	28.5	6.3	33.4	-1	-50	191	364		
203185	-2	-5	1.9	2200	-0.5	5	7	52	-1	2.57	5	-1	-5	5	4.18	-55	-15	-0.1	38.1	-3	-0.01	0.08	13.3	23.4	7.7	-1	88	99.8	199		
203186	2	-5	3.9	1700	-0.5	12	10	16	-1	4.6	3	-1	-5	24	1.02	-59	-15	-0.1	37.8	-3	-0.01	0.3	47.8	27.9	38.9	-1	93	262	528		
203187	-2	-5	-0.5	990	-0.5	17	10	43	-1	3.37	2	-1	-5	65	0.57	325	39	-0.1	24.9	-3	-0.01	0.36	25.4	25.3	23.3	-1	64	216	420		
203188	-2	-5	-0.5	1900	-0.5	17	14	42	-1	3.91	5	-1	-5	6	1.29	-52	-15	-0.1	20.1	-3	-0.01	0.28	21.8	5.9	11.7	-1	-50	203	390		
203189	-2	-5	-0.5	1200	-0.5	13	16	29	-1	5.32	5	-1	-5	16	1.1	-54	97	0.2	32.2	-3	-0.01	0.26	30.7	33.2	18	-1	98	187	382		
203190	-2	-5	-0.5	910	-0.5	8	10	64	2	3.03	2	-1	-5	16	2.98	-51	32	-0.1	14.1	-3	-0.01	0.12	30	28.3	23.6	3	73	186	354		
203191	-2	-5	-0.5	1100	-0.5	22	17	18	2	5.07	4	-1	-5	10	0.66	-55	-15	-0.1	24.6	-3	-0.01	0.33	15.5	19.1	8.8	-1	105	264	535		
203192	3	-5	1.5	2200	-0.5	8	26	106	3	8.28	3	-1	-5	25	1.77	-88	119	-0.1	32.4	-3	-0.02	0.17	25.7	16.6	20.3	-1	318	670	995		
203193	-2	-5	-0.5	2100	-0.5	17	19	54	-1	5.42	4	-1	-5	11	1.19	-60	58	-0.1	32.7	-3	-0.01	0.29	21.4	17.2	19.9	-1	123	321	590		
203194	2	-5	1.8	2600	-0.5	17	16	30	-1	5.28	5	-1	-5	20	1.26	-66	60	-0.1	41.4	-3	-0.01	0.25	38.1	26.3	3.9	-1	146	313	559		
TAN-1-2	-13	-5	26.3	-150	-2.8	-2	6	-5	819	-0.07	23	-2	-8	40	4.65	-307	2670	24	4.2	-4	-0.05	-0.05	2350	5.3	23.3	-1	-50	6.4	13		
TAN-1-1	-14	-7	24.2	-180	-3.5	-2	7	-6	844																						

Sample ID	Nd ppm	Sm ppm	Eu ppm	Tb ppm	Yb ppm	Lu ppm	Mass g
TRENCH							
203151	149	24.8	6.1	1.8	2.3	0.35	1.413
203152	200	32.7	8.3	1.9	1.5	0.2	1.563
203153	190	32.2	8.4	2.2	2.8	0.41	1.451
203154	143	25.6	6.8	1.5	1.6	0.24	1.679
203155	132	20.9	4.8	1.5	1.7	0.25	1.406
203156	199	32.6	8.5	2.1	1.2	0.15	1.615
203157	178	29.3	7.2	1.6	1.7	0.25	1.536
203158	160	26.5	6.6	1.7	1.5	0.21	1.574
203159	209	33.6	8.7	2	1.3	0.18	1.433
203160	255	42.6	11	2.6	2.6	0.4	1.533
203161	264	40.6	10.5	2.3	2	0.28	1.392
203162	297	47.5	12.7	2.8	2.8	0.43	1.454
203164	381	58	15	3.3	2.5	0.32	1.617
203165	205	32.4	7.3	1.8	3.6	0.38	1.429
203166	352	52.5	13.3	2.8	2.2	0.32	1.511
203167	241	34	8.3	-0.5	2.3	0.35	1.511
203169	86	15	3.5	0.8	1.2	0.2	1.255
203170	164	26.7	7.1	1.5	1	0.15	1.386
203171	219	35.1	9.2	1.9	1.3	0.21	1.512
203172	260	43.6	11.9	2.6	3.2	0.46	1.518
203163	436	63.7	15.9	3.1	2.4	0.33	1.688
203168	314	40	8.9	1.5	1.2	0.18	1.557
203173	132	21	5.2	1.2	1.5	0.23	1.54
203174	184	29.9	8.1	1.6	1.9	0.25	1.349
203175	211	29.5	7.1	1.6	1.2	0.18	1.327
203176	241	37.5	9.4	1.8	1.5	0.22	1.413
203177	267	41.6	10.7	2.1	2.3	0.34	1.244
203178	116	17.4	4.4	0.9	1.2	0.21	1.467
203179	192	29.6	7.8	1.7	1.5	0.25	1.327
203180	38	6.6	1.9	-0.5	1.9	0.27	1.389
203181	241	38.3	9.7	2.4	3	0.45	1.467
203182	161	26.4	6.4	-0.5	1.7	0.25	1.218
203183	173	27.5	7.2	1.3	1.4	0.19	1.391
203184	87	14.4	3.5	-0.5	0.8	0.12	1.359
203185	236	38	9.5	2.2	2.1	0.31	1.534
203186	194	31.2	7.9	1.8	1.5	0.23	1.311
203187	186	30.4	7.7	1.4	1.7	0.21	1.281
203188	178	28.8	7.3	1.8	1.7	0.25	1.559
203189	171	25.2	6.2	1.3	1.4	0.2	1.252
203190	280	42	10.6	2.1	2.1	0.32	1.413
203191	384	51.1	12.2	2.6	2.2	0.3	1.536
203192	253	38.3	9.7	2.2	2.4	0.38	1.447
203193	257	37.1	9.3	2	2	0.28	1.327
TAN-1-2	-5	-0.1	-0.2	-0.5	-0.3	-0.05	0.3
TAN-1-1	-5	-0.1	-0.2	-0.5	-0.3	-0.05	0.3
DMMAS-18-119	13	4.2	1.3	0.8	3.6	0.54	1.122
DMMAS-18-118	11	4.3	1.2	0.6	3.8	0.56	1.306

Accepted Value-DMMAS-18B 11+-3 4.1+-0.5 1.2+-0.2 0.8+-0.35 3.6+-0.6 0.54+-0.05
 TAN-1 Cert.

Sample	Nb ppm
203151	856
203152	974
203153	303
203154	837
203155	245
203156	1157
203157	848
203158	766
203159	909
203160	1264
203161	986
203162	214
203163	649
203164	452
203165	865
203166	1808
203167	1877
203168	212
203169	242
203170	543
203171	717
203172	1390
203173	991
203174	539
203175	439
203176	569
203177	343
203178	507
203179	610
203180	26
203181	1110
203182	485
203183	378
203184	368
203185	935
203186	776
203187	1122
203188	1093
203189	596
203190	387
203191	1319
203192	574
203193	568
Standard	
SY 2	29
SY-2	30
SY-2	28
SY-2 Cert.	29

TRENCH
MT-01-1

MT-01-2

MT-01-3

Sample	Nb ppm
SY-3	146
SY-3 Cert.	148
OKA-2	442
OKA-2	440
AGV-1	15
AGV-1 Cert.	15
JG-1A	12
JG-1A Cert.	12
LKSD-1	5
LKSD-1 Cert.	7
Monitor	2145

SEP 04 20

Quality Analysis...



Innovative Technologies

Invoice No.: 22125B
 Work Order: 22353
 Invoice Date: 22-AUGJUN-01
 Date Submitted: 26-JUL-01
 Your Reference: MYOFF CREEK/200
 Account Number: C026

CROSS LAKE MINERALS LTD.
 240-800 WEST PENDER ST.
 VANCOUVER, B.C.
 V6C 2V6
 ATTN: JIM MILLER-TAIT

CERTIFICATE OF ANALYSIS

30 ROCKS (PREP.REV3) were submitted for analysis.

The following analytical packages were requested. Please see our current fee schedule for elements and detection limits.

REPORT 22125 C CODE 4B-MAJ ELEM FUS ICP (WRA.REV2)

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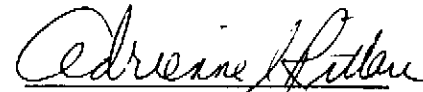
CERTIFIED BY :

per 
 DR E. HOFFMAN / GENERAL MANAGER

Activation Laboratories Ltd. Work Order No. 22353 Report No. 22125C

TRENCH MT-01-4

SAMPLE	SiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI TOTAL	Ba	Sr	Y	Sc	Zr	Be	V	
	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
203194	55.38	9.43	6.57	0.202	8.38	5.55	4.56	5.59	0.225	1.18	2.65	99.72	2391	768	24	53	183	12	79
203195	3.80	0.46	7.07	0.650	8.09	41.45	0.30	0.32	0.097	2.04	32.35	96.62	1093	6986	50	28	96	1	9
203196	50.54	10.37	5.64	0.228	9.65	7.04	4.19	4.93	0.227	0.87	6.57	100.25	2579	1478	16	50	269	9	68
203197	24.31	4.27	5.81	0.394	13.37	21.48	2.03	2.54	0.380	2.60	21.63	98.82	1525	4303	39	44	145	7	46
203198	22.07	5.00	5.72	0.400	13.16	21.82	1.72	2.57	0.231	4.04	22.13	98.86	1774	3671	37	31	149	4	40
203199	25.06	5.91	6.04	0.480	12.03	20.74	1.91	3.03	0.196	2.06	21.06	98.51	1600	4386	34	28	89	4	26
203200	15.56	3.80	4.87	0.450	7.63	31.45	1.23	1.10	0.134	3.69	28.45	98.36	746	4388	47	20	114	1	18
255701	41.22	9.41	8.16	0.263	12.92	9.30	2.07	4.96	0.597	1.98	7.81	98.68	1225	1540	27	39	180	5	76
255702	36.88	10.08	5.91	0.377	9.40	14.37	2.57	3.75	0.458	1.04	14.48	99.31	2492	2938	35	13	31	2	48
255703	67.99	16.94	1.16	0.042	0.57	1.94	4.91	5.08	0.083	0.14	0.94	99.79	2039	602	3	3	48	3	6
255704	22.00	6.05	5.90	0.616	11.70	20.08	1.58	2.70	0.171	0.98	26.97	98.74	1539	3834	20	22	63	3	19
255705	35.48	7.34	6.50	0.445	10.81	17.20	3.32	2.44	0.246	2.91	11.93	98.63	1506	3730	40	44	238	6	42
255705/R	35.69	7.42	6.59	0.442	10.81	16.82	3.32	2.50	0.250	2.82	11.93	98.60	1538	3752	45	45	263	6	43
255706	11.35	1.61	7.16	0.781	13.80	28.46	0.75	1.35	0.186	1.14	31.63	98.22	1778	6131	42	51	91	3	26
255707	41.70	10.94	7.06	0.269	8.57	12.35	5.31	1.80	0.225	1.71	11.44	99.36	2201	2713	33	36	825	5	41
255708	3.26	0.36	6.49	0.651	8.02	39.05	0.43	0.14	0.256	1.68	37.72	98.06	1052	6173	62	42	264	2	47
255709	4.58	0.84	11.55	0.593	8.41	35.18	0.45	0.61	0.342	1.77	34.07	98.40	1269	5175	54	31	114	2	126
255710	5.59	0.70	7.44	0.656	8.24	39.96	0.48	0.24	0.298	3.81	31.62	99.02	1388	5370	69	43	196	2	60
255711	4.15	0.53	14.56	0.576	11.03	31.34	0.37	0.41	0.601	3.25	31.44	98.26	580	4960	47	28	85	2	166
255712	4.27	0.73	8.35	0.563	7.39	40.88	0.26	0.31	0.293	2.74	32.99	98.77	1833	6129	56	26	143	2	61
255713	13.06	3.11	5.57	0.718	13.64	26.29	1.82	0.64	0.087	1.81	31.40	98.15	1730	4516	30	24	42	2	19
255714	49.92	10.64	8.55	0.188	8.14	7.24	6.61	1.15	0.341	0.94	5.65	99.36	781	1035	19	45	234	7	81
255715	42.28	11.20	7.18	0.191	9.94	9.34	5.09	2.94	0.644	0.83	9.35	98.97	1591	1446	15	29	502	4	75
255716	7.10	1.71	9.92	0.343	7.03	36.03	0.50	1.34	0.326	3.11	31.42	98.81	3170	4324	56	26	405	1	80
255717	7.11	1.71	9.95	0.344	7.08	36.19	0.52	1.28	0.327	3.13	30.73	98.36	3172	4327	55	25	406	1	77
255718	7.72	1.67	4.99	0.380	6.71	41.66	0.22	0.59	0.201	3.37	31.20	98.73	2867	5760	68	29	114	1	32
255719	11.60	2.39	3.55	0.540	4.79	37.89	0.83	1.16	0.061	1.49	33.37	97.67	4752	7697	73	24	51	-1	5
255720	9.48	1.94	7.44	0.556	10.98	32.81	0.29	0.32	0.272	3.10	31.19	98.38	3200	5394	56	28	96	2	28
255721	17.94	3.14	8.96	0.379	11.31	25.11	1.27	0.97	0.419	4.08	24.03	97.61	3210	3330	57	39	187	4	56
255722	4.77	0.33	5.19	0.924	13.49	32.87	0.61	0.31	0.034	1.19	38.79	98.51	1088	4309	36	28	57	1	6
255722/R	4.67	0.33	5.19	0.927	13.55	32.86	0.60	0.35	0.034	1.20	38.79	98.49	1080	4299	37	29	59	1	10
255723	12.62	1.30	5.57	0.918	16.12	26.05	1.07	1.21	0.083	1.73	32.08	98.75	282	4143	31	43	57	3	14
SY3 CERT	59.62	11.75	6.49	0.32	2.67	8.26	4.12	4.23	0.15	0.54	1.16		450	302	718	6.8	320	20	50 syenite
SY-3/B	59.92	11.53	6.49	0.321	2.65	8.25	4.16	4.30	0.149	0.54			438	302	718	8	341	20	50
MRG-1 CERT	39.09	8.46	17.93	0.17	13.55	14.71	0.74	0.18	3.77	0.08	1.56		61	266	14	55	108	0.61	526 gabbro
MRG-1/C	38.30	8.36	17.95	0.167	13.51	14.47	0.75	0.18	3.783	0.07			52	270	13	53	99	-1	526
W-2 CERT	52.44	15.35	10.74	0.163	6.37	10.87	2.14	0.627	1.06	0.131	0.60		182	194	24	35	94	1.3	262 diabase
W-2/B	52.07	15.13	10.88	0.165	6.45	10.79	2.31	0.61	1.034	0.13			175	190	22	36	98	-1	263



Adrienne I. Rittau, B.Sc., C.Chem
ICP Technical Manager

Activation Laboratories Ltd. Work Order No. 22353 Report No. 22125C

SAMPLE	SiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI TOTAL	Ba	Sr	Y	Sc	Zr	Be	V	
	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
DNC-1 CERT	<u>47.04</u>	<u>18.30</u>	<u>9.93</u>	<u>0.149</u>	<u>10.05</u>	<u>11.27</u>	<u>1.87</u>	<u>0.229</u>	<u>0.48</u>	<u>0.085</u>	0.60	114	145	18	31	41	1	148	dolerite
DNC-1/B	46.79	18.44	9.91	0.145	10.29	11.29	1.97	0.21	0.473	0.07		105	141	17	31	43	-1	139	
BIR-1 CERT	<u>47.77</u>	<u>15.35</u>	<u>11.26</u>	<u>0.171</u>	<u>9.68</u>	<u>13.24</u>	<u>1.75</u>	0.027	0.96	0.05		7.7	<u>108</u>	<u>16</u>	<u>44</u>	22	0.58	313	basalt
BIR-1/B	47.86	15.60	11.57	0.171	9.68	13.19	1.90	0.07	0.944	0.03		8	108	16	44	22	-1	322	
G-2 CERT	<u>69.08</u>	<u>15.35</u>	<u>2.66</u>	<u>0.032</u>	<u>0.75</u>	<u>1.96</u>	<u>4.08</u>	<u>4.48</u>	<u>0.48</u>	<u>0.14</u>		1882	<u>478</u>	<u>11</u>	<u>3.5</u>	<u>309</u>	<u>2.5</u>	36	granite
G-2/B	70.28	15.13	2.66	0.032	0.77	1.94	4.12	4.35	0.467	0.14		1909	465	13	4	324	2	34	
NBS 1633b CERT	<u>49.24</u>	<u>28.43</u>	<u>11.13</u>	<u>0.020</u>	<u>0.799</u>	<u>2.11</u>	<u>0.271</u>	2.26	<u>1.32</u>	0.53		<u>709</u>	<u>1041</u>		41			296	fly ash
NBS 1633b/B	49.19	28.72	11.51	0.018	0.81	2.15	0.27	2.44	1.271	0.54		725	1042	90	42	243	12	290	
STM-1 CERT	<u>59.64</u>	<u>18.39</u>	<u>5.22</u>	<u>0.22</u>	<u>0.101</u>	<u>1.09</u>	<u>8.94</u>	<u>4.28</u>	<u>0.135</u>	<u>0.158</u>		560	<u>700</u>	<u>46</u>	<u>0.61</u>	<u>1210</u>	9.6	(8.7)	syenite
STM-1/C	59.94	18.19	5.32	0.220	0.09	1.13	8.90	4.24	0.138	0.16		598	695	43	-1	1210	8	-5	
IF-G CERT	<u>41.20</u>	<u>0.15</u>	<u>55.85</u>	<u>0.042</u>	<u>1.89</u>	<u>1.55</u>	<u>0.032</u>	<u>0.012</u>	<u>0.014</u>	<u>0.063</u>		1.5	3	9	0.38	2.4	4.7	4	iron form sample
IF-G/B	40.34	0.14	56.13	0.038	1.95	1.53	0.06	0.01	0.014	0.07		7	4	8	-1	14	4	-5	
FK-N CERT	<u>65.02</u>	<u>18.61</u>	<u>0.09</u>	<u>0.005</u>	<u>0.01</u>	<u>0.11</u>	<u>2.58</u>	<u>12.81</u>	<u>0.02</u>	<u>0.02</u>		<u>200</u>	<u>39</u>	0.3	0.05	13	1	3	K-feldspar
FK-N/C	66.50	18.63	0.13	0.004	0.02	0.10	2.63	12.82	0.014	0.02		206	38	3	1	19	1	-5	

Note: Certificate data underlined are recommended values; other values are proposed except those preceded by a "(" which are information values.
 Note: The Fe2O3 for the standards is Total Fe2O3 and has not been adjusted for the FeO.

Quality Analysis...



Innovative Technologies

Invoice No. : 22698
 Work Order: 22959
 Invoice Date: 11-SEP-01
 Date Submitted: 28-AUG-01
 Your Reference: MYOFF CREEK
 Account Number: 3086

CROSS LAKE MINERALS LTD.
 240-800 WEST PENDER ST.
 VANCOUVER, B.C.
 V6C 2V6
 ATTN: JIM MILLER-TAIT

CERTIFICATE OF ANALYSIS

36 ROCKS (PREP.REV3.2) were submitted for analysis.

The following analytical packages were requested. Please see our current fee schedule for elements and detection limits.

REPORT 22698 CODE 1D ENHANCED INAA (INAAGEO.REV1)
 REPORT 22698 B CODE 4C1-NB-XRF PRESSED PELLET

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CERTIFIED BY :

DR E.HOFFMAN/GENERAL MANAGER

Activation Laboratories Ltd. Work Order: 22959 Report: 22698

Sample ID	Au ppb	Ag ppm	As ppm	Ba ppm	Br ppm	Ca %	Co ppm	Cr ppm	Cs ppm	Fe %	Hf ppm	Hg ppm	Ir ppb	Mo ppm	Na %	Ni ppm	Rb ppm	Sb ppm	Sc ppm	Se ppm	Sn %	Sr %	Ta ppm	Th ppm	U ppm	W ppm	Zn ppm	La ppm	Ce ppm
347351	-2	-5	1.6	410	-0.5	36	6	18	-1	1.7	1	-1	-5	-1	1.35	-23	-15	-0.1	7.2	-3	-0.02	0.21	-0.5	4	-0.5	-1	-50	26.4	42
347352	7	-5	4.1	990	-0.5	35	32	6	-1	5.72	5	-1	-5	-1	0.18	-39	-15	-0.1	28.5	-3	-0.02	0.86	123	26.5	153	-1	-50	330	642
347353	6	-5	2.3	570	-0.5	30	8	12	-1	2.94	1	-1	-5	-1	0.07	-30	-15	0.3	19.9	-3	-0.02	0.91	13.6	25.4	9.8	-1	-50	219	434
347354	4	-5	1.6	270	-0.5	33	8	48	2	2.82	1	-1	-5	-1	0.4	-20	70	-0.1	8.8	-3	-0.02	0.06	-0.5	7.8	0.9	-1	-50	32.4	50
347355	-2	-5	1.8	360	-0.5	46	4	16	-1	1.05	-1	-1	-5	-1	0.11	-20	-15	-0.1	2.6	-3	-0.01	0.15	-0.5	2.8	-0.5	-1	124	9.2	17
347356	-2	-5	2.4	240	-0.5	34	9	50	2	2.72	1	-1	-5	-1	0.59	-21	98	-0.1	9.1	-3	-0.02	0.16	-0.5	9.3	-0.5	-1	-50	31.9	49
347357	7	-5	1.8	170	1.1	40	7	36	2	2.01	1	-1	-5	3	0.28	-20	39	-0.1	6.6	-3	-0.02	0.2	-0.5	5.6	-0.5	3	54	25.9	37
347358	-2	-5	3.3	510	-0.5	34	8	42	2	2.41	1	-1	-5	-1	0.86	-23	50	-0.1	8	-3	-0.02	0.14	-0.5	8.6	-0.5	-1	-50	30.9	50
347359	-2	-5	3.5	180	-0.5	34	9	49	2	2.61	1	-1	-5	-1	0.4	-20	48	-0.1	8.6	-3	-0.02	0.21	-0.5	7.5	-0.5	-1	-50	32.1	46
347360	-2	-5	15.9	260	-0.5	35	7	39	1	2.08	1	-1	-5	-1	0.33	-20	61	-0.1	6.7	-3	-0.01	0.13	1.8	7.2	-0.5	-1	-50	23.4	37
347361	-2	-5	2.2	220	-0.5	32	8	51	3	2.56	1	-1	-5	1	0.29	-20	51	-0.1	8.3	-3	-0.01	0.18	-0.5	7.5	-0.5	-1	53	30.9	47
347408	29	-5	-4.5	2800	-4.5	-3	11	-5	-1	5.46	11	-1	-5	-1	2.62	-160	-15	-0.4	64.3	-3	-0.03	-0.05	-0.5	19	-2.4	-1	-50	2820	3100
347409	61	-5	-4.4	2300	-4.5	13	15	38	-1	8.07	8	-1	-5	-1	3.43	-160	-15	-0.4	81.7	-3	-0.03	-0.05	-0.5	25.5	-2.5	-1	223	2590	2470
347410	-2	-5	-0.5	2000	-0.5	20	14	28	-1	4.74	-1	-1	-5	11	0.47	-76	-15	-0.1	31.2	-3	-0.03	0.29	28.5	18.6	15.2	-1	-50	326	497
347411	-2	-5	-0.5	9100	-0.5	17	20	22	-1	4.34	4	-1	-5	-1	0.4	-93	-15	1.2	26.2	-3	-0.02	0.66	25.3	14.2	21.3	-1	183	1220	1860
347412	-2	-5	-0.5	4000	-0.5	19	30	27	-1	6.7	-1	-1	-5	-1	0.27	-89	-15	-0.1	28.2	-3	-0.03	0.33	24.7	11	19.9	-1	-50	410	563
347413	-2	-5	-0.5	4400	-0.5	28	17	26	-1	4.21	6	-1	-5	-1	0.41	-92	58	-0.1	28.3	-3	-0.02	0.47	31.7	18.9	30.1	-1	-50	516	1010
347414	-2	-5	-0.5	3100	-0.5	16	21	7	-1	4.81	-1	-1	-5	-1	0.61	-90	-16	-0.1	26.3	-3	-0.02	0.38	28.9	14.6	31.7	-1	128	451	667
347415	-5	-5	-0.5	2100	-0.5	21	7	19	-1	3.35	4	-1	-5	-1	0.26	-60	-15	0.9	23.6	-3	-0.02	0.62	42.1	19	20.4	-1	-50	708	1180
347416	-5	-5	-0.5	12000	-0.5	24	24	22	-1	5.87	5	-1	-5	-1	0.28	-89	-15	1.2	28.8	-3	-0.02	0.67	29.8	20.6	30.1	-1	-50	1290	1840
347417	-2	-5	-0.5	650	-0.5	28	10	54	3	2.42	1	-1	-5	-1	0.42	-27	50	0.3	10	-3	-0.01	0.1	1	6.2	1.2	-1	88	30.2	39
347418	-2	-5	-0.5	1800	-0.5	22	11	64	3	2.83	1	-1	-5	-1	0.92	-28	65	-0.1	11.1	-3	-0.01	0.1	1	10	2.5	-1	66	41.3	56
347419	4	-5	-0.5	290	-0.5	32	7	40	1	2.12	1	-1	-5	-1	0.45	-20	54	0.2	7.1	-3	-0.01	0.15	-0.5	5.5	-0.5	-1	-50	35	54
347420	-2	-5	-0.5	180	-0.5	28	9	44	2	2.31	1	-1	-5	-1	0.54	-20	62	-0.1	8	-3	-0.01	0.18	1	7.5	1.5	-1	-50	26.9	41
347421	-2	-5	-0.5	200	-0.5	36	5	26	2	1.43	-1	-1	-5	-1	0.26	-20	44	-0.1	4.7	-3	-0.01	0.17	-0.5	4.5	1.1	-1	-50	18.2	26
347422	3	-5	1.2	340	-0.5	31	7	39	2	2	-1	-1	-5	-1	0.45	-20	64	-0.1	7.6	-3	-0.01	0.16	-0.5	6.3	-0.5	-1	-50	22.7	34
347423	-2	-5	-0.5	210	-0.5	31	9	31	3	2.19	3	-1	-5	-1	0.59	-20	38	-0.1	7.7	-3	-0.01	0.15	1.8	9	1.8	-1	-50	39.4	63
347424	-2	-5	-0.5	410	-0.5	33	9	42	3	2.4	2	-1	-5	3	0.55	-20	43	-0.1	7.7	-3	-0.01	0.1	-0.5	5.3	1.8	-1	57	34.7	50
347425	4	-5	1.6	890	-0.5	24	14	63	3	3.49	2	-1	-5	3	0.5	-20	84	-0.1	11.3	-3	-0.01	0.16	1.5	13.8	1.7	-1	66	47.7	80
347426	3	-5	6.3	140	-0.5	41	1	-5	-1	0.32	-1	-1	-5	3	0.08	-20	-15	0.9	0.5	-3	-0.01	0.07	-0.5	0.3	0.8	-1	100	3.5	4
347427	-2	-5	2.5	720	-0.5	38	4	20	-1	1.19	-1	-1	-5	2	0.25	-23	30	-0.1	3.5	-3	-0.01	0.17	-0.5	8.8	0.7	-1	-50	16.2	28
347428	-2	-5	3	480	-0.5	42	2	5	-1	0.38	-1	-1	-5	2	0.09	-20	-15	0.6	1.3	-3	-0.01	0.18	-0.5	0.6	1	-1	429	5.1	7
347101	-2	-5	-0.5	5000	-0.5	-1	4	32	-1	1.84	3	-1	-5	-1	5.28	-34	-15	0.4	27	-3	-0.02	-0.05	3	3	1.3	-1	-50	53.1	118
347102	2	-5	-0.5	2000	-0.5	35	9	13	-1	2.52	3	-1	-5	5	0.14	-33	-15	0.1	21.1	-3	-0.02	0.63	17.3	14.4	16.9	-1	-50	348	651
347103	-2	-5	-0.5	3000	-0.5	33	9	14	-1	3.39	2	-1	-5	-1	0.2	-42	-15	-0.1	29.9	-3	-0.02	0.6	27.6	10.1	25.5	-1	-50	464	809
347104	6	-5	-0.5	2300	-0.5	34	13	-5	-1	3.75	4	-1	-5	5	0.14	-37	-15	0.1	21.2	-3	-0.02	0.55	9.7	9.9	6.8	-1	-50	399	724
3 (PULP DUP)	6	-5	-0.5	9500	-0.5	22	16	14	-1	4.48	4	-1	-5	-1	0.42	-63	-15	-0.1	25.5	-3	-0.02	0.69	27.2	14.3	21.6	-1	152	1240	1920
347425(PULP DUP)	-2	-5	1.8	960	-0.5	25	15	65	3	3.67	3	-1	-5	-1	0.53	-23	70	-0.1	12.4	-3	-0.02	0.12	1.6	14	1.6	-1	75	51.4	85
347104(PULP DUP)	7	-5	-0.5	2400	-0.5	35	10	-5	-1	3.66	4	-1	-5	6	0.14	-39	-15	-0.1	21.7	-3	-0.02	0.53	9.9	10.7	6.7	-1	-50	418	765
DMMAS-18-2000	593	-5	2060	510	2.5	8	61	154	2	8.4	3	-1	-5	-2	0.8	-30	48	11.8	20.3	-3	-0.04	-0.05	-0.6	1.5	-0.5	20	187	12.6	25
DMMAS-18-1998	605	-5	2120	510	3.5	7	65	143	-1	8.66	3	-1	-5	-1	0.75	-38	62	12.4	21.3	-3	-0.02	-0.05	-0.5	1.5	-0.5	16	275	12.5	24

Accepted Value-DMMAS-18B 544+-72 2020+-224 435+-150 2.5+-1.5 7+-2 58+-15 151+-20 8.05+-0.85 2+-1 0.74+-0.48 38+-10 12+-3 20.5+-3.4 1.5+-0.5 19+-2 250+-50 12.2+-1.3 23+-3

Activation Laboratories Ltd. Work Order: 22959 Report: 22698

Sample ID	Nd ppm	Sm ppm	Eu ppm	Tb ppm	Yb ppm	Lu ppm	Mass g
347351	15	3.1	0.6	-0.5	0.9	0.15	23.49
347352	314	56	15.7	1.6	3.4	0.51	27.01
347353	200	31.9	9.1	2.1	1.5	0.2	25.06
347354	19	3.6	0.6	-0.5	1	0.16	23.1
347355	-5	1.1	0.3	-0.5	0.4	0.07	21.53
347356	19	3.5	0.7	-0.5	1	0.14	22.73
347357	17	2.9	0.5	-0.5	1	0.16	19.4
347358	27	4	0.8	-0.5	1	0.16	20.53
347359	20	3.6	0.7	-0.5	1.1	0.17	21.83
347360	12	2.7	0.5	-0.5	0.7	0.12	24.56
347361	18	3.4	0.8	-0.5	0.9	0.15	26.07
347408	761	38.9	10.6	4.1	2.5	0.38	30.2
347409	640	30.9	8.1	2.3	2.3	0.35	29.73
347410	204	33.8	10.6	2.1	2.6	0.39	26.02
347411	563	46.4	16	3.5	2.1	0.31	22.56
347412	213	31.6	9.8	2.8	2.7	0.4	21.95
347413	411	46.8	15.7	3.8	3.4	0.52	23.45
347414	227	39.6	12.5	3.1	2.4	0.34	21.96
347415	482	48.8	16.1	3.9	2.8	0.42	28.78
347416	603	53.5	18.9	4.3	3.4	0.31	26.86
347417	13	2.8	0.9	-0.5	0.7	0.12	23.48
347418	18	3.7	1	-0.5	0.9	0.13	28.56
347419	20	3.7	0.8	-0.5	1	0.15	26.49
347420	14	3.2	0.5	-0.5	0.9	0.14	25.87
347421	11	2.1	0.4	-0.5	0.7	0.11	24.93
347422	8	2.5	0.7	-0.5	0.9	0.14	24.58
347423	26	4.7	1.1	-0.5	0.9	0.14	25.36
347424	19	3.4	0.7	-0.5	0.9	0.14	25.64
347425	31	5.4	1.1	0.7	1.6	0.25	27.37
347426	-5	0.3	-0.2	-0.5	-0.2	-0.05	23.34
347427	11	2.3	0.7	-0.5	0.8	0.11	25.48
347428	-5	0.5	-0.2	-0.5	0.2	-0.05	26.6
347101	44	7.1	1.9	-0.5	0.4	0.07	26.6
347102	288	50.6	14.9	4.3	4.3	0.63	29.3
347103	344	54.8	15.7	4.2	4.3	0.64	23.26
347104	320	51.4	15.8	4.2	3.8	0.56	25.34
347425(PULP DUP)	696	48.9	16.3	3	2.3	0.34	22.62
347425(PULP DUP)	30	5.6	1.2	0.6	1.5	0.23	24.13
347104(PULP DUP)	332	54	15.9	4.4	3.7	0.55	22.09
DMMAS-18-2000	15	4.1	1.3	0.8	3.7	0.7	25.55
DMMAS-18-1998	13	3.9	1.4	-0.5	3.6	0.53	25.67

Accepted Value-DMMAS-18B 11+-3 4.1+-0.5 1.2+-0.2 0.8+-0.35 3.6+-0.6 0.54+-0.05

Sample	Nb ppm
347351	7
347352	500
347353	414
347354	12
347355	4
347356	10
347357	8
347358	11
347359	9
347360	8
347361	10
347408	118
347409	389
347410	533
347411	427
347412	304
347413	204
347414	185
347415	544
347416	335
347417	10
347418	15
347419	12
347420	9
347421	8
347422	8
347423	28
347424	9
347425	14
347426	2
347427	9
347428	3
347101	68
347102	96
347103	172
347104	90

Standard	Nb
BHVO-1	19
BHVO-1 Cert.	19
AGV-1	16
AGV-1 Cert.	15
OKA-1	3340
OKA-1 Cert.	3700
LKSD-3	9
STSD-2	21

Subject: methods

Date: Mon, 23 Jul 2001 18:03:05 -0400

From: Eric Hoffman <hoffman@actlabs.com>

To: crosslak@intergate.ca

METHODS

Preparation: Code RX2 Samples were crushed using a TM Rhino crusher to 90% -10 mesh , riffle split and a portion pulverized using a mild steel TM ring and puck pulverizer to better than 95% -150 mesh.

CODE 4c1- XRF was used for the determination of Nb on a 6 gram pressed powder pellet.

CODE 1D enhanced- INAA (instrumental neutron activation) was used for the determination of Ta and 34 other elements. For INAA the sample powder is encapsulated, irradiated in a nuclear reactor and after an appropriate decay measured on a high purity Ge detector.

Activation Laboratories Ltd is accredited by the Standards Council of Canada to ISO/IEC Guide 25 (soon to change to ISO 17025) and Can-P-1579 (mineral analysis laboratories) for specific registered tests. The Mining Standards task force suggest using labs with this accreditation.

Jim, let me know if you need further information.

Regards

Eric Hoffman, Phd

Eric Hoffman, Phd
General Manager
Activation Laboratories Ltd
1336 Sandhill Drive
Ancaster, Ontario L9G 4V5
Canada
ph-1-905-648-9611 ext 123
fax-1-905-648-9613
e-mail: hoffman@actlabs.com

COMINCO EXPLORATION RESEARCH LABORATORY

Project : CROSS LAKE MINERALS
 Ref/I.D. : (MYOFF CR.PROP.)

Reported to : J.MILLER-TAIT
 and : J.HARRIS

Shipped to lab : 27 08 01
 Received at lab: 28 08 01
 Work completed : 27 09 01

Lab Nos : R01-04733 to R01-04747

Analysis/prep	reported	no req	no @	rate	no @	rate	\$ TOTAL
Nb XRF	18 09 01	15	15 @	\$4.00			60.00
Ta XRF	18 09 01	15			15 @	\$2.00	30.00
Ce XRF	18 09 01	15			15 @	\$2.00	30.00
La XRF/PP	18 09 01	15			15 @	\$2.00	30.00
Nd XRF	27 09 01	15			15 @	\$2.00	30.00
Sc XRF	27 09 01	15			15 @	\$2.00	30.00

Job Cost = \$ 210.00
 G.S.T (7%) = \$ 14.70
 TOTAL PAYABLE (Cdn) = \$ 224.70

Methods of analysis were reported with the results, as were field nos

Enquiries to: Susie Woo/Jim McLeod
 Cominco Exploration Research Laboratory
 1486 East Pender Street, Vancouver, B.C. V5L 1V8
 PHONE (604) 685-3032 / FAX (604) 844-2686

NOV 13 2001

CROSS LAKE MINERALS-X01

MYOFF CR/HEAVY MIN.SMPLS

PAGE 1

Job V 01-0407H

Report date: 05 OCT 2001

LAB NO	FIELD NUMBER	La(1) ppm	Ta(1) ppm	Nb ppm	Ce ppm
H0100893	203167	340	89	E8300	1179
H0100895	203181	376	774	E10000	1308
H0100897	255719	1170	322	E10000	E2878
H0100898	255720	2380	217	E7080	E4963

I=insufficient sample X=small sample E=exceeds calibration C=being checked R=revised
If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

La(1) X-Ray fluorescence / pressed pellet
Ta(1) X-Ray fluorescence / pressed pellet
Nb X-Ray fluorescence / pressed pellet
Ce X-Ray fluorescence / pressed pellet

TECK COMINCO METALS/EXPLORATION RESEARCH LABORATORY

Project : CROSS LAKE MINERALS
 Ref/I.D.: (MYOFF CR/HEAVY MIN. SMPLS)

Reported to : J.HARRIS
 and : J MILLER-TAIT

Shipped to lab : 21 09 01
 Received at lab: 21 09 01
 Work completed : 05 10 01

Lab Nos : H01-00893 to H01-00898

Analysis/prep	reported	no req	no @	rate	no @	rate	\$ TOTAL
Heavy Mineral TBE Prep.			6 @	\$25.00			150.00
Polished Thin Section			4 @	\$26.00			104.00
La XRF/PP	04 10 01	4	4 @	\$4.00			16.00
Ta XRF	04 10 01	4			4 @	\$2.00	8.00
Nb XRF	04 10 01	4			4 @	\$2.00	8.00
Ce XRF	04 10 01	4			4 @	\$2.00	8.00
Casting Prep			4 @	\$6.00			24.00

JOB COST = \$ 318.00
 G.S.T @ 7% = \$ 22.26
 TOTAL PAYABLE (Cdn) = \$ 340.26

Methods of analysis were reported with the results, as were field nos

Enquiries to: Susie Woo / Jim McLeod
 TECK COMINCO METALS-Exploration Research Laboratory
 1486 East Pender Street / Vancouver, B.C. V5L 1V8
 PHONE (604)685-3032 / FAX (604)844-2686

NOV 13 2001

CROSS LAKE MINERALS-X01

347551-558

PAGE 1

Job V 01-0455R

Report date: 23 OCT 2001

LAB NO	FIELD NUMBER	Ta(1) ppm	Nb ppm	Ce ppm	La(1) ppm	Nd ppm	Sc ppm
R0106249	#347551	28	350	282	180	160	32
R0106250	#347552	28	355	927	434	267	29
R0106251	#347553	40	420	654	283	297	29
R0106252	#347554	16	533	472	220	252	21
R0106253	#347555	21	720	619	308	258	23
R0106254	#347556	<3	770	280	143	186	24
R0106255	#347557	20	827	225	128	145	32
R0106256	#347558	<3	1850	391	221	244	11

} Channel Samples

TN 16 Mineral Claim
S 694 018 N
376 362 E

I=insufficient sample X=small sample E=exceeds calibration C=being checked R=revised
If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

- Ta(1) X-Ray fluorescence / pressed pellet
- Nb X-Ray fluorescence / pressed pellet
- Ce X-Ray fluorescence / pressed pellet
- La(1) X-Ray fluorescence / pressed pellet
- Nd X-Ray fluorescence / pressed pellet
- Sc X-Ray fluorescence / pressed pellet

CROSS LAKE MINERALS-X01
347551-558

Job V 01-0455R

Report date: 23 OCT 2001

LAB NO	FIELD NUMBE	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm
R0106249	#347551	51	33	333	<.4	16	421	<1	18	30	3.83	4	38	<5	<5	24	5	<2	2665	40	224	1959	4.05	0.17	1.51	E12.19	0.27	2.04	7074
R0106250	#347552	27	83	208	<.4	28	555	<1	13	20	3.56	2	28	<5	<5	5	6	<2	4640	51	450	2882	4.61	0.14	1.28	E19.27	0.22	1.81	E11500
R0106251	#347553	16	123	282	<.4	13	772	<1	12	16	5.35	3	19	<5	<5	23	5	<2	4394	52	319	2999	4.63	0.10	1.00	E21.37	0.18	1.35	E14600
R0106252	#347554	16	35	107	<.4	15	622	<1	10	11	3.79	2	9	<5	<5	6	5	<2	4982	53	268	3579	5.17	0.08	0.76	E24.44	0.11	1.04	E12800
R0106253	#347555	24	34	311	<.4	15	354	<1	14	25	5.04	6	28	<5	<5	27	6	<2	5164	53	314	3678	5.64	0.06	0.51	E23.75	0.13	0.68	E18480
R0106254	#347556	26	29	163	<.4	16	638	<1	11	15	3.88	3	21	<5	<5	<2	9	<2	4429	38	175	3699	7.74	0.08	1.19	E19.05	0.16	1.62	E13058
R0106255	#347557	15	20	374	<.4	14	694	<1	6	11	3.11	<2	22	<5	<5	<2	4	<2	3923	32	172	3105	6.75	0.08	1.20	E14.86	0.20	1.72	E11578
R0106256	#347558	16	50	210	<.4	10	1552	<1	3	9	1.92	<2	14	<5	<5	8	6	<2	6537	81	241	2625	1.61	0.06	0.52	E30.6	0.13	0.36	8655

I=insufficient sample X=small sample E=exceeds calibration C=being checked R=revised
If requested analyses are not shown, results are to follow

ANALYTICAL METHODS

ICP PACKAGE : 0.5 gram sample digested in hot reverse aqua regia (soil,silt) or hot Aqua Regia(rocks).

① Channel Samples

② Sample on TN 16 mineral claim
5694 018 N
376 362 E

2 NOV 2001 Job costs for TECK COMINCO METALS Ltd. Job No: V01-0455R

TECK COMINCO METALS/EXPLORATION RESEARCH LABORATORY

Project : CROSS LAKE MINERALS
Ref/I.D.: (347551-558)

Reported to : J.MILLER-TAIT
and :

Shipped to lab : 09 10 01
Received at lab: 10 10 01
Work completed : 23 10 01

Lab Nos : R01-06249 to R01-06256

Analysis/prep	reported	no req	no @	rate	no @	rate	\$ TOTAL
Ta XRF	22 10 01	8	8 @	\$4.00			32.00
Nb XRF	22 10 01	8			8 @	\$2.00	16.00
Ce XRF	22 10 01	8			8 @	\$2.00	16.00
La XRF/PP	22 10 01	8			8 @	\$2.00	16.00
Nd XRF	22 10 01	8			8 @	\$2.00	16.00
Sc XRF	22 10 01	8			8 @	\$2.00	16.00
28 Element ICP	23 10 01	8	8 @	\$7.00			56.00
Fan-dry Rock Prep			8 @	\$1.50			12.00
Standard Rock Prep			8 @	\$5.00			40.00

Job Cost = \$ 220.00
G.S.T (7%) = \$ 15.40
TOTAL PAYABLE (Cdn) = \$ 235.40

Methods of analysis were reported with the results, as were field nos

Enquiries to: Susie Woo/Jim McLeod
TECK COMINCO METALS/Exploration Research Laboratory
1486 East Pender Street, Vancouver, B.C. V5L 1V8
PHONE (604) 685-3032 / FAX (604) 844-2686



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

CROSS LAKE MINERALS LTD.

240 - 800 W. PENDER ST.
 VANCOUVER, BC
 V6C 2V6

AUG 9, 2001

A0121300

Comments: ATTN: JIM MILLER-TAIT

CERTIFICATE

A0121300

(NWT) - CROSS LAKE MINERALS LTD.

Project: **MYOFF CREEK**
 P.O. #:

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 07-AUG-2001.

SAMPLE PREPARATION

METHOD CODE	NUMBER SAMPLES	DESCRIPTION
PUL-31	1	Pulv. <250g to >85%/-75 micron
STO-21	1	Reject Storage-First 90 Days
LOG-22	1	Samples received without barcode
CRU-31	1	Crush to 70% minus 2mm
SPL-21	1	Splitting Charge
229	1	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES 1 of 2

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
1433	1	Weight of received sample	BALANCE	0.01	1000.0
Au-AA23	1	Au-AA23 : Au ppb: Fuse 30 grams	FA-AAS	5	10000
Ag-ICP41	1	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
Al-ICP41	1	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
As-ICP41	1	As ppm: 32 element, soil & rock	ICP-AES	2	10000
B-ICP41	1	B ppm: 32 element, rock & soil	ICP-AES	10	10000
Ba-ICP41	1	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
Be-ICP41	1	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
Bi-ICP41	1	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
Ca-ICP41	1	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
Cd-ICP41	1	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
Co-ICP41	1	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
Cr-ICP41	1	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
Cu-ICP41	1	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
Fe-ICP41	1	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
Ga-ICP41	1	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
Hg-ICP41	1	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
K-ICP41	1	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
La-ICP41	1	La ppm: 32 element, soil & rock	ICP-AES	10	10000
Mg-ICP41	1	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
Mn-ICP41	1	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
Mo-ICP41	1	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
Na-ICP41	1	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
Ni-ICP41	1	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
P-ICP41	1	P ppm: 32 element, soil & rock	ICP-AES	10	10000
Pb-ICP41	1	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
S-ICP41	1	S %: 32 element, rock & soil	ICP-AES	0.01	10.00
Sb-ICP41	1	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
Sc-ICP41	1	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
Sr-ICP41	1	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
Ti-ICP41	1	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
Tl-ICP41	1	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
U-ICP41	1	U ppm: 32 element, soil & rock	ICP-AES	10	10000
V-ICP41	1	V ppm: 32 element, soil & rock	ICP-AES	1	10000



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To: CROSS LAKE MINERALS LTD.

240 - 800 W. PENDER ST.
 VANCOUVER, BC
 V6C 2V6

A0121300

Comments: ATTN: JIM MILLER-TAIT

CERTIFICATE

A0121300

(NWT) - CROSS LAKE MINERALS LTD.

Project:
 P.O. #:

Samples submitted to our lab in Vancouver, BC.
 is report was printed on 07-AUG-2001.

SAMPLE PREPARATION

METHOD CODE	NUMBER SAMPLES	DESCRIPTION
PUL-31	1	Pulv. <250g to >85%/-75 micron
STO-21	1	Reject Storage-First 90 Days
LOG-22	1	Samples received without barcode
CRU-31	1	Crush to 70% minus 2mm
SPL-21	1	Splitting Charge
229	1	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES 2 of 2

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
W-ICP41	1	W ppm: 32 element, soil & rock	ICP-AES	10	10000
Zn-ICP41	1	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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

Client: CROSS LAKE MINERALS LTD.

240 - 800 W. PENDER ST.
 VANCOUVER, BC
 V6C 2V6

Page Number : 1-A
 Total Pages : 1
 Certificate Date: 07-AUG-2001
 Invoice No. : 10121300
 P.O. Number :
 Account : NWT

Project :
 Comments: ATTN: JIM MILLER-TAIT

CERTIFICATE OF ANALYSIS A0121300

SAMPLE	PREP CODE	Weight Au ppb		Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La
		Kg	FA+AA	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%
G-1	94139402	1.08	25	0.8	0.37	< 2	< 10	< 10	< 0.5	< 2	0.75	< 0.5	13	53	356	9.87	< 10	< 1	< 0.01	< 10

CERTIFICATION: _____



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to: CROSS LAKE MINERALS LTD.

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Project :
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CERTIFICATE OF ANALYSIS

A0121300

SAMPLE	PREP CODE	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
G-1	94139402	0.09	1570	13	< 0.01	111	2670	< 2	4.61	6	< 1	92	0.03	< 10	< 10	35	< 10	18

CERTIFICATION: _____

[Handwritten Signature]
 CR

ALS Chemex



212 Brooksbank Avenue
North Vancouver, BC
Canada
V7J 2C1

Phone 604-984-0221
Fax 604-984-0218

FACSIMILE MESSAGE

To: CROSSLAKE MINERALS	From: Stuart Mcleod
Name: Jim Miller Tait	Pages: 6 (including this page)
Fax: 688 - 5443	Date: January 14, 2000
Re: Analytical methods used .	

Dear Mr. Jim Miller Tait ,
Please find attached 5 pages regarding the analytical methods we used to analyze your samples.

Please let me know if you need anything else.

Thank You
Stuart Mcleod.

* Geochemical Procedure - G32 Package

Sample Decomposition: Nitric Aqua Regia Digestion

Analytical Method: Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample (1.00 gram) is digested with concentrated nitric acid for at least one hour. After cooling, hydrochloric acid is added to produce aqua regia and the mixture is then digested for an additional hour and a half. The resulting solution is diluted to 25ml with demineralized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences.

<u>Chemex Code</u>	<u>Element</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
229	ICP-AQ Digestion	n/a	n/a	n/a
2119	* Aluminum	Al	0.01%	15 %
2141	Antimony	Sb	2 ppm	1 %
2120	Arsenic	As	2 ppm	1 %
2121	* Barium	Ba	10 ppm	1 %
2122	* Beryllium	Be	0.5 ppm	0.01 %
2123	Bismuth	Bi	2 ppm	1 %
557	Boron	B	10 ppm	10,000 ppm
2125	Cadmium	Cd	0.5 ppm	0.05 %
2124	* Calcium	Ca	0.01%	15 %
2127	* Chromium	Cr	1 ppm	1 %
2126	Cobalt	Co	1 ppm	1 %
2128	Copper	Cu	1 ppm	1 %
2130	* Gallium	Ga	10 ppm	1 %
2150	Iron	Fe	0.01%	15 %
2151	* Lanthanum	La	10 ppm	1 %
2140	Lead	Pb	2 ppm	1 %
2134	* Magnesium	Mg	0.01%	15 %
2135	Manganese	Mn	5 ppm	1 %
2131	Mercury	Hg	1 ppm	1 %
2136	Molybdenum	Mo	1 ppm	1 %
2138	Nickel	Ni	1 ppm	1 %
2139	Phosphorus	P	10 ppm	1 %
2132	* Potassium	K	0.01%	10 %

Geochemical Procedure - G32 Package (con't)

<u>Chemex Code</u>		<u>Element</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
2142	*	Scandium	Sc	1 ppm	1 %
2118		Silver	Ag	0.2 ppm	0.01 %
2137	*	Sodium	Na	0.01%	10 %
2143	*	Strontium	Sr	1 ppm	1 %
551		Sulfur	S	0.01 %	5 %
2145	*	Thallium	Tl	10 ppm	1 %
2144	*	Titanium	Ti	0.01%	10 %
2148	*	Tungsten	W	10 ppm	1 %
2146		Uranium	U	10 ppm	1 %
2147		Vanadium	V	1 ppm	1 %
2149		Zinc	Zn	2 ppm	1 %

*Elements for which the digestion is possibly incomplete.



**Assay Procedure - Arsenic, Bismuth, Cadmium, Copper, Iron, Lead,
Molybdenum, Silver, and Zinc by Nitric- Aqua Regia digestion**

Sample Decomposition: Nitric - Aqua Regia Digestion

Analytical Method: Atomic Absorption Spectroscopy (AAS)

A prepared sample (0.2 to 2.0g) is digested with concentrated nitric acid for one half hour. After cooling, hydrochloric acid is added to produce aqua regia and the mixture is then digested for an additional hour and a half. An ionization suppressant is added if molybdenum is to be measured. The resulting solution is diluted to volume (100 or 250 ml) with demineralized water, mixed and then analyzed by atomic absorption spectrometry against matrix-matched standards.

International Units:

<u>Chemex Code</u>	<u>Element</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
331	Arsenic	As	0.01 %	100 %
349	Bismuth	Bi	0.001 %	100 %
320	Cadmium	Cd	0.001 %	100 %
* 301	Copper	Cu	0.01 %	100 %
3501	Copper	Cu	0.001 %	100 %
3508	Copper	Cu	10 ppm	1,000,000 ppm
326	Iron	Fe	0.01 %	100 %
* 312	Lead	Pb	0.01 %	100 %
306	Molybdenum	Mo	0.001 %	100 %
307	Molybdenum as MoS ₂	MoS ₂	0.001 %	100 %
386	Silver	Ag	0.3 g/t	350 g/t
956	Silver (Rush charge)	Ag	0.3 g/t	350 g/t
* 316	Zinc	Zn	0.01 %	100 %
8089	Manganese	Mn	0.01 %	100 %

American/English Units:

<u>Chemex Code</u>	<u>Element</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
385	Silver	Ag	0.01 oz/ton	10.0 oz/ton
980	Silver (Rush charge)	Ag	0.01 oz/ton	10.0 oz/ton

Fire Assay Procedure - Gold, Silver

Sample Decomposition: Fire Assay Fusion

Analytical Method: Gravimetric

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents in order to produce a lead button. The lead button containing the precious metals is cupelled to remove the lead. The remaining gold and silver bead is parted in dilute nitric acid, annealed and weighed as gold. Silver, if requested, is then determined by the difference in weights.

International Units:

	<u>Routine Code</u>	<u>Rush Code</u>	<u>Element</u>	<u>*Sample Weight</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
	397	474	Gold	½ assay ton	Au	0.1 g/t	1,000 g/t
*	997	955	Gold	1 assay ton	Au	0.07 g/t	1,000 g/t
	3597		Gold	50 grams	Au	0.07 g/t	1,000 g/t
	1297		Gold	2 assay ton	Au	0.03 g/t	1,000 g/t
	1597		Gold	5 assay ton	Au	0.03 g/t	1,000 g/t
	448		Gold	all	Au	0.002 mg	30 mg
*	384	473	Silver	½ assay ton	Ag	3 g/t	3,500 g/t
	447		Silver	all	Ag	0.1 mg	100 mg

American/English Units:

	<u>Routine Code</u>	<u>Rush Code</u>	<u>Element</u>	<u>*Sample Weight</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
	396	471	Gold	½ assay ton	Au	0.003 oz/ton	30 oz/ton
	996	954	Gold	1 assay ton	Au	0.002 oz/ton	30 oz/ton
	3596		Gold	50 grams	Au	0.001 oz/ton	30 oz/ton
	1296		Gold	2 assay ton	Au	0.001 oz/ton	30 oz/ton
	1596		Gold	5 assay ton	Au	0.001 oz/ton	30 oz/ton
	383	470	Silver	½ assay ton	Ag	0.1 oz/ton	100 oz/ton

*Note: ½ assay ton = 14.5883 grams
 1 assay ton = 29.166 grams
 2 assay ton = 58.322 grams
 5 assay ton = 145.83 grams



Fire Assay Procedure - Trace Gold

Sample Decomposition: Fire Assay Fusion

Analytical Method: Atomic Absorption Spectroscopy (AAS)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested for * hour in dilute nitric acid. Hydrochloric acid is then added and the solution is digested for an additional hour. The digested solution is cooled, diluted to 7.5 ml with demineralized water, homogenized and then analyzed by atomic absorption spectrometry.

International Units:

<u>Routine Code</u>	<u>Rush Code</u>	<u>Element</u>	<u>Sample Weight (grams)</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
100	990	Gold	10	Au	5 ppb	10,000 ppb
96	1090	Gold	10	Au	0.005 ppm	10 ppm
* 983	991	Gold	30	Au	5 ppb	10,000 ppb
99	1091	Gold	30	Au	0.005 ppm	10 ppm
494	1209	Gold	30	Au	0.005 g/t	10 g/t
3583		Gold	50	Au	5 ppb	10,000 ppb
3584		Gold	50	Au	0.005 ppm	10 ppm
3594		Gold	50	Au	0.005 g/t	10 g/t

American/English Units:

<u>Routine Code</u>	<u>Rush Code</u>	<u>Element</u>	<u>Sample Weight (grams)</u>	<u>Symbol</u>	<u>Detection Limit</u>	<u>Upper Limit</u>
877	1977	Gold	30	Au	0.0002 oz/ton	0.3 oz/ton

Trench Sampling Weighted Average Calculations

- Trench MT-01-1
- Trench MT-01-2
- Trench MT-01-3
- Trench MT-01-4

MYOFF TRENCH MT-01-1

Sample ID	Trench #	Width (m)	Ta	Nb	La	Ce	Nd	Ta	Nb	La	Ce	Nd	Geology	Ta ₂ O ₅	Nb ₂ O ₅	La ₂ O ₃	Ce ₂ O ₃	Nd ₂ O ₃
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		ppm	ppm	W x Ta ₂ O ₅	W x Nb ₂ O ₅	W x La ₂ O ₃
203151	MT-01-1	6	13.2	856	193	348	149	79.2	5136	1158	2088	894	Gneiss	96.6	7344.5	1354.9	2568.2	1046.0
203152	MT-01-1	0.3	7.9	974	231	462	200	2.37	292.2	69.3	138.6	60	Carbonatite	2.9	417.8	81.1	170.5	70.2
203153	MT-01-1	2.7	13.3	303	238	463	190	35.91	818.1	642.6	1250.1	513	Gneiss	43.8	1189.9	751.8	1537.6	600.2
203154	MT-01-1	0.5	44.4	637	157	337	143	22.2	418.5	78.5	168.5	71.5	Carbonatite	27.1	598.5	91.8	207.3	83.7
203155	MT-01-1	5.5	0	245	211	371	132	0	1347.5	1160.5	2040.5	726	Gneiss	0.0	1926.9	1357.8	2509.8	849.4
203156	MT-01-1	2	26.5	1157	195	422	199	53	2314	390	844	398	Carbonatite	64.7	3309.0	456.3	1038.1	465.7
203157	MT-01-1	4	19.7	648	201	416	178	78.8	3392	804	1664	712	Gneiss	96.1	4850.6	940.7	2046.7	833.0
203158	MT-01-1	5	22.1	766	163	354	160	110.5	3830	815	1770	800	Carbonatite	134.8	5476.9	953.6	2177.1	936.0
203159	MT-01-1	3	6.3	909	211	459	209	18.9	2727	633	1377	627	Carbonatite	23.1	3899.6	740.6	1693.7	733.6
203160	MT-01-1	5	45	1264	286	597	255	225	6320	1430	2985	1275	Carbonatite	274.5	9037.6	1673.1	3671.6	1491.8
203161	MT-01-1	5	21.7	986	371	688	264	108.5	4930	1855	3440	1320	Carbonatite	132.4	7049.9	2170.4	4231.2	1544.4
203162	MT-01-1	5	24.1	214	387	731	297	120.5	1070	1935	3655	1485	Carbonatite	147.0	1530.1	2264.0	4495.7	1737.5
203163	MT-01-1	5	20.3	649	621	1060	436	101.5	3245	3105	5300	2180	Carbonatite	123.8	4640.4	3632.9	6519.0	2550.6
203164	MT-01-1	5	11.9	452	475	884	381	59.5	2260	2375	4420	1905	Carbonatite	72.6	3231.8	2778.8	5436.6	2228.9
203165	MT-01-1	5	17.7	865	252	490	205	88.5	4325	1260	2450	1025	Carbonatite	108.0	6184.8	1474.2	3013.5	1199.3
203166	MT-01-1	5	15.4	1808	471	855	352	77	9040	2355	4275	1760	Carbonatite	93.9	12927.2	2755.4	5258.3	2059.2
203167	MT-01-1	5	35.6	1877	423	710	241	178	9385	2115	3550	1205	Carbonatite	217.2	13420.6	2474.6	4366.5	1409.9
203168	MT-01-1	5	7.6	212	640	998	314	38	1060	3200	4990	1570	Gneiss	46.4	1515.8	3744.0	6137.7	1836.9
		74																
WEIGHTED AVERAGE OVER 74 METRES IN PPM:								18.9	836.8	343.0	627.1	250.4	23.0	1196.4	401.3	771.3	292.9	
WEIGHTED AVERAGE OF THE 50.8m OF CARBONATITE ONLY IN PPM:								22.9	987.3	362.5	676.6	277.8	30.0	1411.9	424.1	832.3	325.0	

MYOFF TRENCH MT-01-2

Sample ID	Trench #	Width (m)	Ta	Nb	La	Ce	Nd		Nb	La	Ce	Nd	Geology	Ta ₂ O ₅	Nb ₂ O ₅	La ₂ O ₃	Ce ₂ O ₃	Nd ₂ O ₃	
			ppm	ppm	ppm	ppm	ppm	W x Ta	W x Nb	W x La	W x Ce	W x Nd		W x Ta ₂ O ₅	W x Nb ₂ O ₅	W x La ₂ O ₃	W x Ce ₂ O ₃	W x Nd ₂ O ₃	
203169	MT-01-2	5	4	242	113	227	86	20	1210	565	1135	430	Gneiss	24.4	1730.3	132.2	1396.1	503.1	
203170	MT-01-2	5	31.7	543	169	369	164	158.5	2715	845	1845	820	Carbonatite	193.4	3882.5	197.7	2269.4	959.4	
203171	MT-01-2	5	10.1	717	198	450	219	50.5	3585	990	2250	1095	Carbonatite	61.6	5126.6	231.7	2767.5	1261.2	
203172	MT-01-2	5	79.4	1390	289	608	260	397	6950	1445	3040	1300	Carbonatite	484.3	9938.5	338.1	3739.2	1521.0	
203173	MT-01-2	5	8.2	991	145	282	132	41	4955	725	1410	660	Carbonatite	50.0	7085.7	169.7	1734.3	772.2	
203174	MT-01-2	5	24.4	539	201	384	184	122	2695	1005	1920	920	Carbonatite	148.8	3853.9	235.2	2361.6	1076.4	
203175	MT-01-2	5	12.1	439	190	393	211	60.5	2195	950	1965	1055	Carbonatite	73.8	3138.9	222.3	2417.0	1234.4	
203176	MT-01-2	5	12.4	569	305	556	241	62	2845	1525	2780	1205	Carbonatite	75.6	4068.4	356.9	3419.4	1409.9	
203177	MT-01-2	5	23.3	343	315	588	267	116.5	1715	1575	2940	1335	Carbonatite	142.1	2452.5	368.6	3616.2	1562.0	
203178	MT-01-2	5	8.3	507	157	278	116	41.5	2535	785	1390	580	Carbonatite	50.6	3625.1	183.7	1709.7	678.6	
203179	MT-01-2	5	19.4	610	254	454	192	97	3050	1270	2270	960	Carbonatite	118.3	4361.5	297.2	2792.1	1123.2	
		55m																	
WEIGHTED AVERAGE OVER 55 METRES IN PPM:									21.2	626.4	212.4	417.2	188.4		25.9	895.7	49.7	513.1	220.4
WEIGHTED AVERAGE OF THE 50m OF CARBONATITE ONLY IN PPM:									22.9	664.8	222.3	436.2	198.6		28.0	950.7	52.0	536.5	232.4

MYOFF TRENCH MT-01-3

Sample ID	Trench #	Width (m)	Ta	Nb	La	Ce	Nd	Ta	Nb	La	Ce	Nd	Geology	Ta ₂ O ₅	Nb ₂ O ₅	La ₂ O ₃	Ce ₂ O ₃	Nd ₂ O ₃
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		ppm	ppm	W x Ta ₂ O ₅	W x Nb ₂ O ₅	W x La ₂ O ₃
203181	MT-01-3	1	98.9	1110	277	514	241	98.9	1110	277	514	241	Carbonatite	120.7	1587.3	324.1	632.2	282.0
203182	MT-01-3	5	7.9	485	183	333	161	39.5	2425	915	1665	805	Gneiss	48.2	3467.8	1070.6	2048.0	941.9
203183	MT-01-3	5	28.5	378	191	364	173	142.5	1890	955	1820	865	Carbonatite	173.9	2702.7	1117.4	2238.6	1012.1
203184	MT-01-3	5	13.3	368	99.8	199	87	66.5	1840	499	995	435	Carbonatite	81.1	2631.2	583.8	1223.9	509.0
203185	MT-01-3	5	47.8	935	262	528	236	239	4675	1310	2640	1180	Carbonatite	291.6	6685.3	1532.7	3247.2	1380.6
203186	MT-01-3	5	25.4	776	216	420	194	127	3850	1080	2100	970	Carbonatite	154.9	5548.4	1263.6	2583.0	1134.9
203187	MT-01-3	5	21.8	1122	203	390	186	109	5610	1015	1950	930	Carbonatite	133.0	8022.3	1187.6	2398.5	1088.1
203188	MT-01-3	5	30.7	1093	187	382	178	153.5	5465	935	1910	890	Carbonatite	187.3	7815.0	1094.0	2349.3	1041.3
203189	MT-01-3	5	30	596	186	354	171	150	2980	930	1770	855	Carbonatite	183.0	4261.4	1088.1	2177.1	1000.4
203190	MT-01-3	5	15.5	387	264	535	280	77.5	1935	1320	2675	1400	Carbonatite	94.6	2767.1	1544.4	3290.3	1638.0
203191	MT-01-3	5	25.7	1319	670	995	384	128.5	6595	3350	4975	1920	Carbonatite	156.8	9430.9	3919.5	6119.3	2246.4
203192	MT-01-3	5	21.4	574	321	590	253	107	2870	1605	2950	1265	Carbonatite	130.5	4104.1	1877.9	3628.5	1480.1
203193	MT-01-3	5	38.1	568	313	559	257	190.5	2840	1565	2795	1285	Carbonatite	232.4	4061.2	1831.1	3437.9	1503.5
		61																
WEIGHTED AVERAGE OVER 61 METRES IN PPM:								26.7	723.2	258.3	471.5	213.8		32.6	1034.2	302.2	579.9	250.1
WEIGHTED AVERAGE OF THE 56m OF CARBONATITE ONLY IN PPM:								28.4	744.0	265.0	483.8	218.5		34.6	1063.9	310.1	595.1	255.6

MYOFF TRENCH MT-01-4

Sample ID	Trench #	Width (m)	Ta	Nb	La	Ce	Nd	Ta	Nb	La	Ce	Nd	Geology	Ta ₂ O ₅	Nb ₂ O ₅	La ₂ O ₃	Ce ₂ O ₃	Nd ₂ O ₃
			ppm	ppm	ppm	ppm	ppm	ppm	W x Ta	W x Nb	W x La	W x Ce		W x Nd	W x Ta ₂ O ₅	W x Nb ₂ O ₅	W x La ₂ O ₃	W x Ce ₂ O ₃
203194	MT-01-4	3	4	186	120	225	98	12	558	360	675	294	Gneiss	14.6	787.9	421.2	830.3	344.0
203195	MT-01-4	5	51.4	799	404	679	261	257	3995	2020	3995	1305	Carbonatite	313.5	5712.9	2363.4	4175.9	1526.9
203196	MT-01-4	5	4.1	407	100	184	75	20.5	2035	500	920	375	Pegmatite	25.0	2910.1	585.0	1131.6	438.8
203197	MT-01-4	5	32.9	735	242	446	195	164.5	3675	1210	2230	975	Carbonatite	200.7	5255.3	1415.7	2742.9	1140.8
203198	MT-01-4	5	46.8	1118	211	447	225	234	5590	1055	2235	1125	Carbonatite	285.5	7993.7	1234.4	2749.1	1316.3
203199	MT-01-4	5	18.6	838	200	383	167	93	4190	1000	1915	835	Carbonatite	113.5	5991.7	1170.0	2355.5	977.0
203200	MT-01-4	5	49.9	515	288	524	234	249.5	2575	1440	2620	1170	Carbonatite	304.4	3682.3	1684.8	3222.6	1358.9
255701	MT-01-4	5	9.7	1402	194	389	171	48.5	7010	970	1945	855	Pegmatite	59.2	10024.3	1134.9	2392.4	1000.4
255702	MT-01-4	5	0.5	474	206	382	150	2.5	2370	1030	1910	750	Pegmatite	3.1	3389.1	1205.1	2349.3	877.5
255703	MT-01-4	5	1.3	70	14.9	30	9	6.5	350	74.5	150	45	Pegmatite	7.9	500.5	87.2	184.5	52.7
255704	MT-01-4	5	12.3	1699	89.4	190	81	61.5	8495	447	950	405	Carbonatite	75.0	12147.9	523.0	1168.5	473.9
255705	MT-01-4	5	18.1	3211	334	642	300	90.5	16055	1670	3210	1500	Carbonatite	110.4	22958.7	1953.9	3948.3	1755.0
255706	MT-01-4	5	27.6	2140	277	537	248	138	10700	1385	2685	1240	Carbonatite	168.4	15301.0	1620.5	3302.6	1450.8
255707	MT-01-4	5	15.8	1843	170	336	168	79	9215	850	1680	840	Carbonatite	96.4	13177.5	994.5	2066.4	982.8
255708	MT-01-4	5	11.7	1701	376	686	302	58.5	8505	1880	3430	1510	Carbonatite	71.4	12162.2	2199.6	4218.9	1766.7
255709	MT-01-4	5	9.6	1559	288	544	262	48	7795	1440	2720	1310	Carbonatite	58.8	11146.9	1684.8	3345.6	1532.7
255710	MT-01-4	5	20.4	1857	460	883	400	102	9285	2300	4415	2000	Carbonatite	124.4	13277.6	2691.0	5430.5	2340.0
255711	MT-01-4	5	21.2	1564	390	710	330	106	7820	1950	3550	1650	Carbonatite	129.3	11182.6	2281.5	4366.5	1930.5
255712	MT-01-4	5	37.2	2288	511	824	323	186	11440	2555	4120	1615	Carbonatite	226.9	16359.2	2989.4	5067.6	1889.6
255713	MT-01-4	5	7.7	526	401	632	240	38.5	2630	2005	3160	1200	Carbonatite	47.0	3760.9	2345.9	3886.8	1404.0
255714	MT-01-4	5	18.5	347	128	242	107	92.5	1735	640	1210	535	Carbonatite	112.9	2481.1	748.8	1488.3	626.0
255715	MT-01-4	5	25.8	513	87.3	175	75	129	2565	436.5	875	375	Carbonatite	157.4	3668.0	510.7	1076.3	438.8
255716	MT-01-4	5	42.5	554	288	610	290	212.5	2770	1440	3050	1450	Carbonatite	259.3	3961.1	1684.8	3751.5	1696.5
255717	MT-01-4	5	28.7	331	416	808	360	143.5	1655	2080	4040	1800	Carbonatite	175.1	2366.7	2433.6	4969.2	2106.0
255718	MT-01-4	5	64.3	801	561	1050	452	321.5	4005	2805	5250	2260	Carbonatite	392.2	5727.2	3281.9	6457.5	2644.2
255719	MT-01-4	5	23.5	329	1010	1670	615	117.5	1645	5050	8350	3075	Carbonatite	143.4	2352.4	5908.5	10270.5	3597.8
255720	MT-01-4	5	86.6	1241	696	1150	469	433	6205	3480	5750	2345	Carbonatite	528.3	8873.2	4071.6	7072.5	2743.7
255721	MT-01-4	5	62.4	690	543	951	427	312	3450	2715	4755	2135	Carbonatite	380.6	4933.5	3176.6	5848.7	2498.0
255722	MT-01-4	5	11.2	648	881	1170	372	56	3240	4405	5850	1860	Carbonatite	68.3	4633.2	5153.9	7195.5	2176.2
255723	MT-01-4	7	2.5	855	431	725	266	17.5	5985	3017	5075	1862	Gneiss	21.4	8558.6	3529.9	6242.3	2178.5
		150																
WEIGHTED AVERAGE OVER 150 METRES IN PPM:								25.9	1064.5	352.8	622.4	261.5	31.6	1522.2	412.7	765.6	305.9	
WEIGHTED AVERAGE OF THE 120m OF CARBONATITE ONLY IN PPM:								31.0	1160.3	385.5	687.7	287.6	37.8	1659.2	451.0	834.8	336.5	

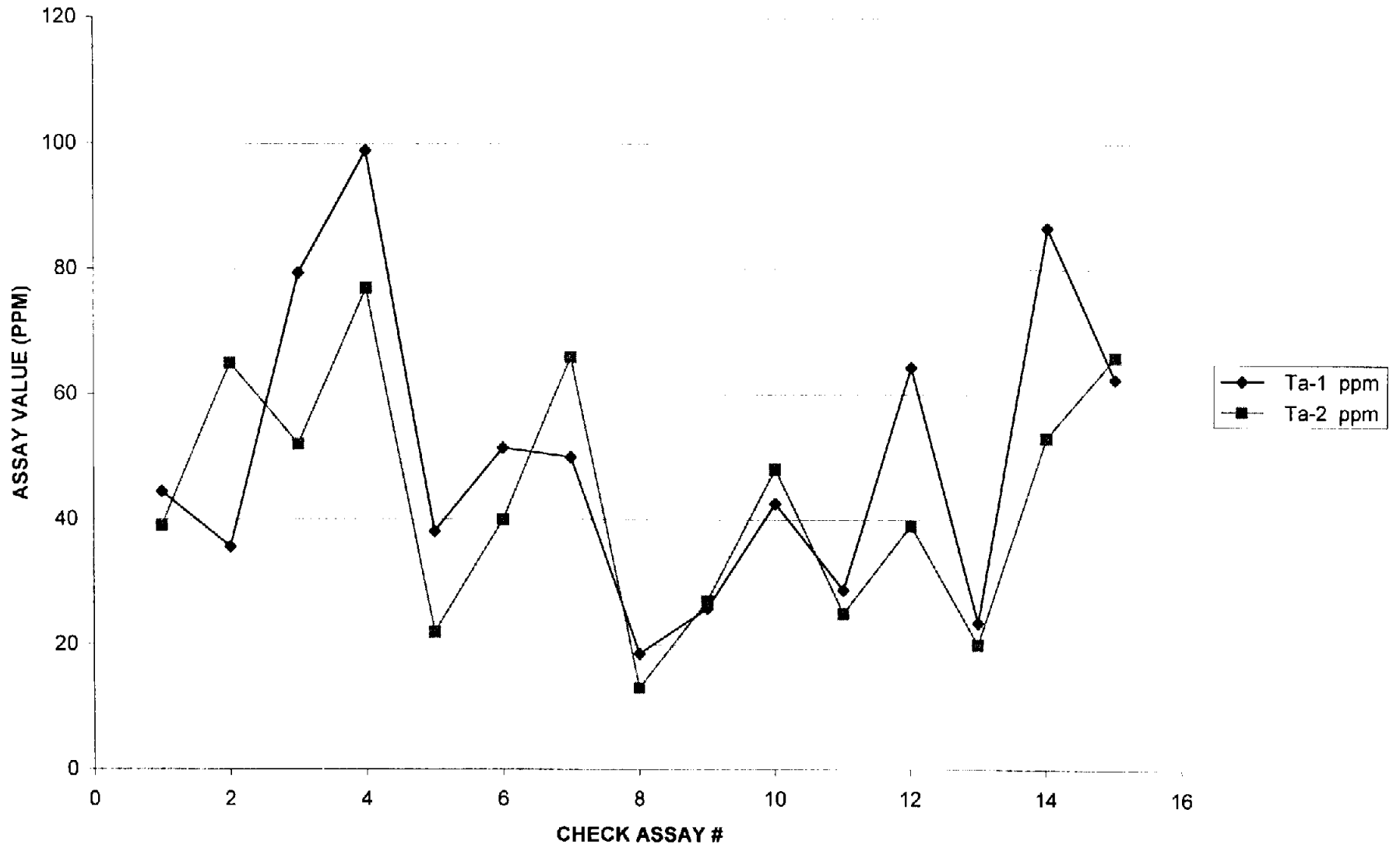
Check Assay Comparison Charts:

Element-1: Original analysis by Activation Laboratories Ltd.

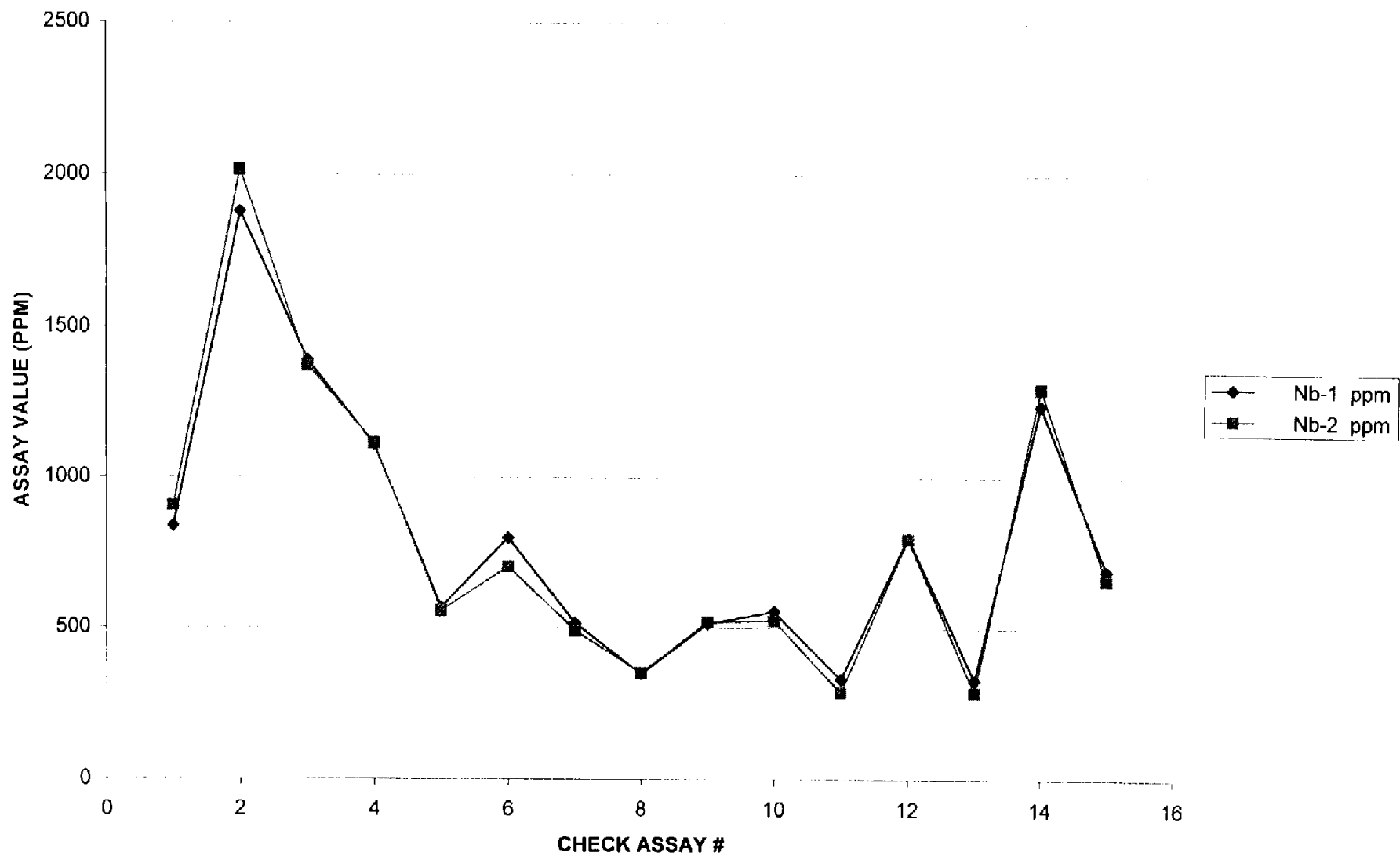
Element-2: Check analysis by Teck Cominco Exploration Research Laboratory

- Tantalum
- Niobium
- Cerium
- Lanthanum
- Neodymium

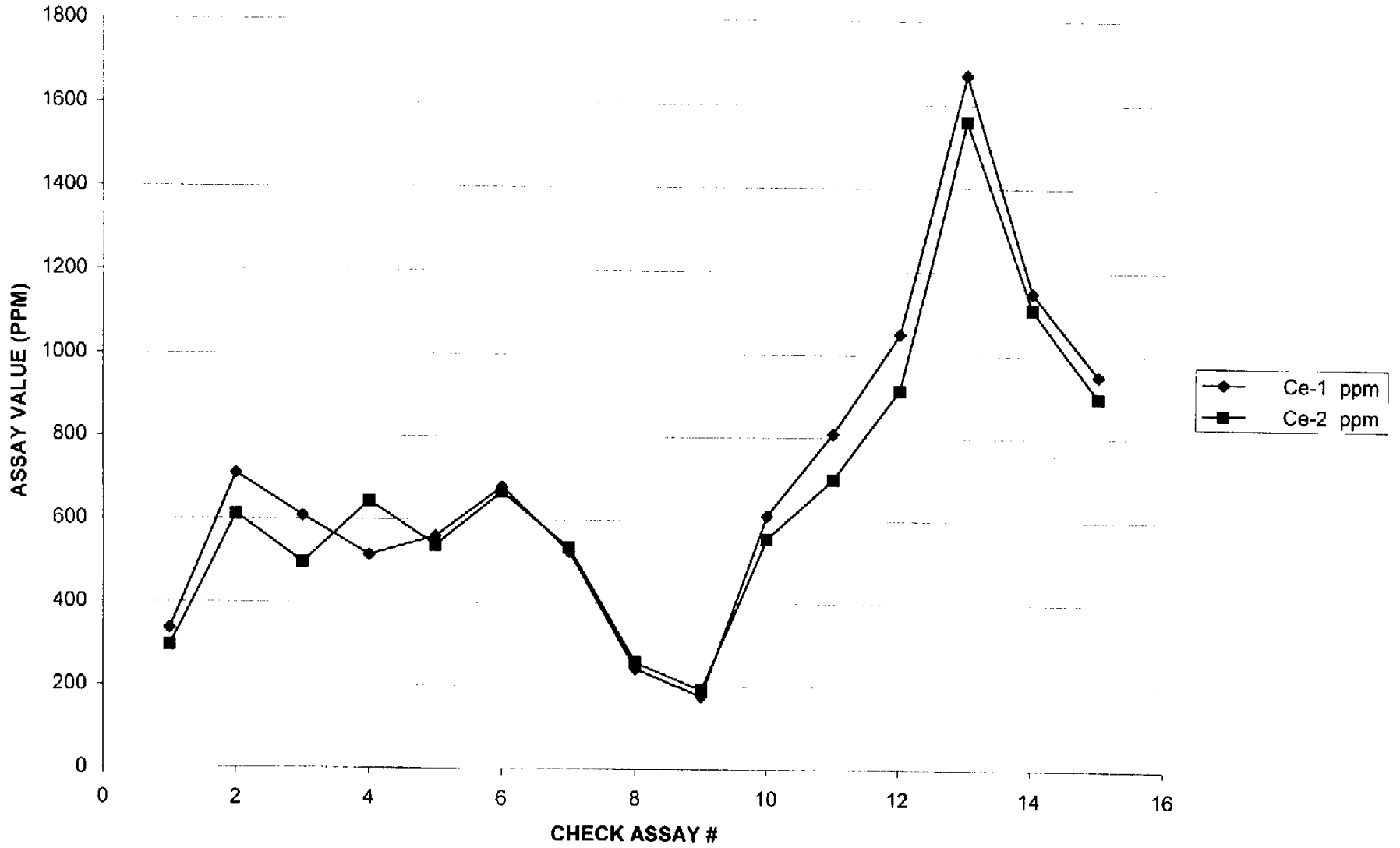
MYOFF CREEK PROPERTY - TANTALUM CHECK ASSAYS



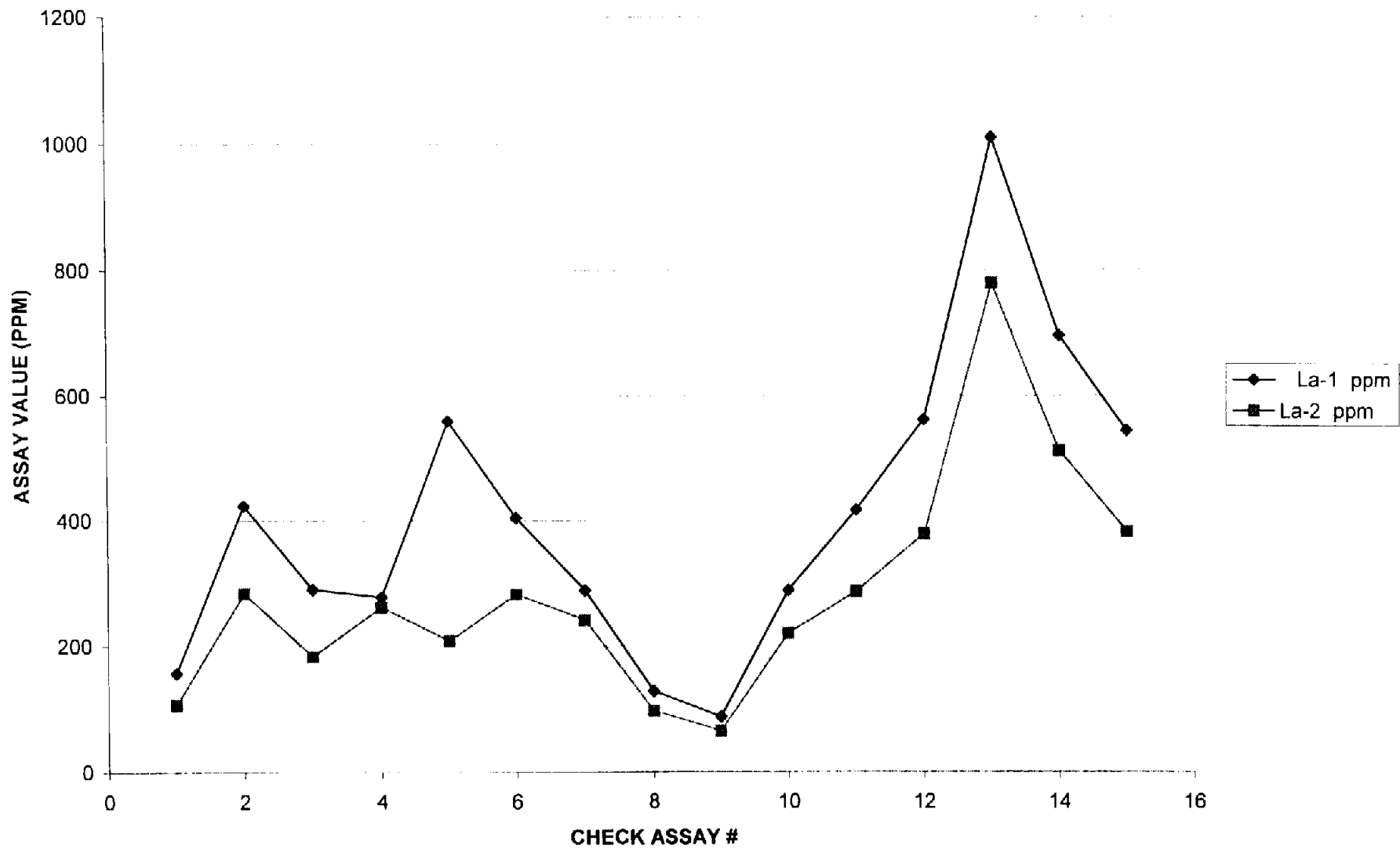
MYOFF CREEK PROPERTY - NIOBIUM CHECK ASSAYS



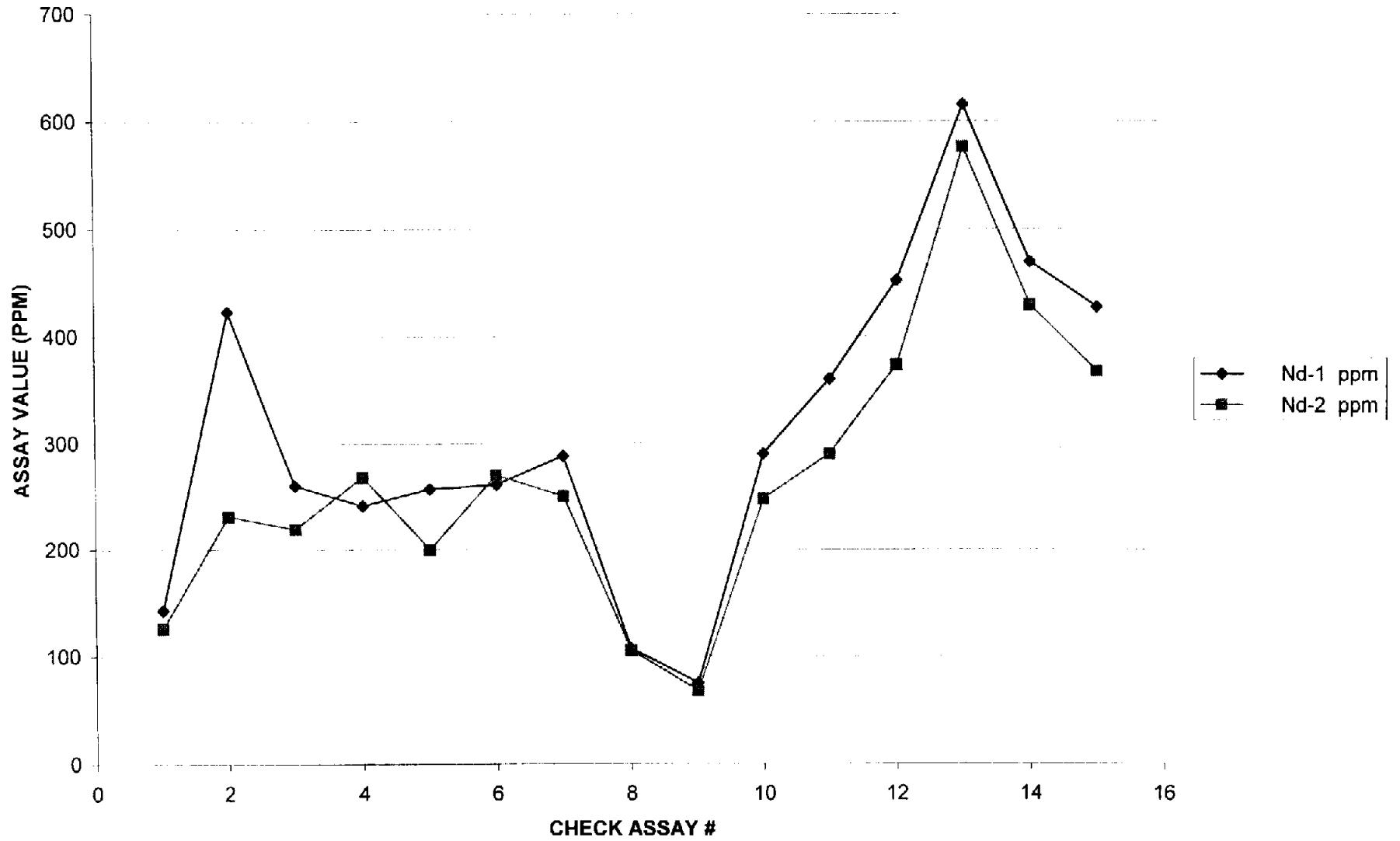
MYOFF CREEK PROPERTY - CERIUM CHECK ASSAYS



MYOFF CREEK PROPERTY - LANTHANUM CHECK ASSAYS



MYOFF CREEK PROPERTY - NEODYMIUM CHECK ASSAYS



SECTION E: PETROGRAPHIC REPORTS

Petrographic and mineralogical analyses carried out by Harris Exploration Services of North Vancouver, B.C.

1. Petrographic Report #01-73 dated August 3, 2001
2. Mineralogical Report #01-91 dated October 24, 2001

Harris
**EXPLORATION
SERVICES**

MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6

TELEPHONE (604) 929-5867

Report for: Cross Lake Minerals Ltd.,
240 - 800 West Pender Street,
VANCOUVER, B.C.
V6C 2V6

Report 01-73

August 3, 2001

PETROGRAPHIC EXAMINATION OF SAMPLES FROM A Nb-Ta-REE PROSPECT

Introduction:

2 samples, said to be designated 255715 and 255716, were submitted to the Cominco E.R.L. for thin sectioning. Apparently these were received as two individually unmarked pieces of rock in a bag labelled "MET SAMPLE T-4 @ 105 m." They were arbitrarily designated A and B, and typical portions prepared for the present study as polished thin sections (Slides 01-3397 and 3398).

Summary:

Both thin sections are of similar general type, consisting dominantly of varigranular aggregates of calcite which form a matrix to disseminated individual grains - and local clumpy/lenticular segregations - of biotite, amphibole and apatite.

Minor amounts of sulfides (pyrrhotite and pyrite) and Fe-Ti oxides are the remaining constituents - again occurring as individual disseminated grains, sometimes associated with the silicate/phosphate accessories, and - rarely - as laminar strings.

Mode of Occurrence of Nb, Ta and Rare Earths:

No specific minerals of these elements were recognizable in the petrographic study.

A strongly anisotropic oxide-like phase, occurring as a few disseminated grains, was suspected of being columbite-tantalite but, when checked by SEM/EDX microanalysis, was found to contain only Fe and Ti (and to be, by implication, a form of ilmenite).

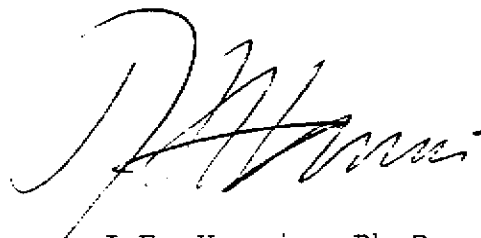
No unusual minerals which might be carriers of rare earths were noted.

An SEM scan of slide T-4(B) for areas of high electron back-scatter (potentially indicative of concentrations of elements of high atomic weight such as Ta or the rare earths) led to the checking of a small, rounded grain (0.1 mm in size) of sub-opaque material with a thin rim of pyrite. This yielded the peaks of Nb and Ta. A single tiny grain of similar appearance was subsequently noted in Slide T-4(A).

This does not account for overall levels of Nb of 500 ppm or so, and total rare earths of 1000 - 1500 ppm, as indicated by the given assay data for Sample 255716.

If assay reject material is still available for these specific samples, it could be used to produce gravity concentrates. Mineralogical study of the latter (by optical, SEM and possibly XRD methods) would have a better chance of locating and identifying the mineral form of the elements of economic interest. Random thin sections of the untreated rock (as in the present study) - could very well have failed to include any of the minerals in question if, as is likely, these are of low abundance and spotty distribution.

Individual petrographic descriptions are attached.

A handwritten signature in cursive script, appearing to read 'J.F. Harris', is written in dark ink. The signature is fluid and somewhat stylized, with a large initial 'J' and 'H'.

J.F. Harris Ph.D.

SAMPLE T-4(A) Slide 01-3397

Estimated mode

Calcite	92
Amphibole	0.5
Biotite	4
Apatite	2
Plagioclase	trace
Pyrrhotite	1
Pyrite	0.5
Chalcopyrite	trace
Ilmenite	trace

This thin section consists dominantly of carbonate, as an anhedral, locally complex-margined aggregate of widely varied grain size. Much of it has a grain size in the 1 - 3 mm range, but there are also a few, thin laminar zones and irregular patches of a finer-grained variant of grain size 0.05 - 0.15 mm.

The carbonate is strongly reactive to dilute HCl, indicating calcitic composition.

A variety of minor to trace accessory constituents occur scattered through the carbonate matrix. In part these show laminar distribution or grain elongation which defines an incipient foliation.

The most abundant accessory is a weakly pleochroic, pale orange-brown variety of biotite, occurring as individual flakes, 0.5 - 2.0 mm in size, and occasionally as elongate clumps thereof. Small grains of a pale green, non-pleochroic amphibole (actinolite?) sometimes occur associated with the biotite, and are also seen in independently disseminated form.

Sub-rounded individual grains of apatite, 0.2 - 1.0 mm or more in size, are the second most abundant accessory. These typically occur randomly disseminated through the carbonate matrix, or are occasionally associated with clumps of biotite.

Opagues consist principally of pyrrhotite and pyrite, often closely associated. These occur in like mode to the other accessories, as randomly disseminated individual grains, 0.1 - 0.5 mm in size, occasionally concentrated as small clumps and strings, and/or moulded onto biotite, apatite or amphibole. One hairline stringer of sulfides follows a laminar zone of fine grain size in the carbonate host.

Minor proportions of ilmenite occur in similar mode to the sulfides.

SAMPLE T-4(B) Slide 01-3398

Estimated mode

Calcite	67
Biotite	20
Amphibole	8
Apatite	3.5
Pyrite)	1
Pyrrhotite)	
Chalcopyrite	trace
Magnetite)	0.5
Ilmenite)	

This sample is closely similar in composition and general character to T-4(A), but contains higher proportions of the accessories biotite, amphibole and apatite. The thin section includes clumpy/lenticular segregations of biotite and amphibole up to 1 or 2 cm in size.

Traces of sulfides (pyrrhotite, pyrite and rare chalcopyrite) and Fe-Ti oxides occur as disseminated grains, ranging in size from about 0.5 mm down to a few microns. These are sometimes seen interstitial or peripheral to biotite, amphibole or apatite, but also occur randomly within the carbonate matrix.

Report for: Jim Miller-Tait,
Cross Lake Minerals Ltd.,
240 - 800 West Pender Street,
VANCOUVER, B.C.
V6C 2V6

Report 01-91

October 24, 2001

MINERALOGICAL EXAMINATION OF HEAVY MINERAL CONCENTRATES

Introduction:

XRF analyses of Nb, Ta, Ce and La on 15 assay pulps from the Myoff Creek property, submitted to Teck-Cominco ERL for check purposes, showed satisfactory agreement with the original data.

On the basis of the chemical data, 6 samples (listed below) were selected from this suite for additional work. Relevant data are as follows:

TABLE 1: Original Samples (mean assay values)

Field No.	Lab No.	Nb	Ta	Ce	La
203167	01-4734	1846	50	661	353
203172	01-4735	1336	70	550	236
203181	01-4736	1112	88	578	269
255718	01-4744	798	51	982	479
255719	01-4745	302	21	1614	894
255720	01-4746	1270	82	1130	592

These particular samples were selected on the basis that the first three show relatively high contents of Nb and Ta, and the last three are relatively high in rare earths. Sample 255720 is high in both criteria.

These samples were subjected to gravity separation in tetrabromoethane (at S.G. 2.96) to produce heavy mineral concentrates. Yields obtained, plus assays of four of the heavy concentrates selected for additional mineralogical work, are shown in the following table:

TABLE 2: Heavy Mineral Concentrates

Field No.	Lab No.	(g)*	(g)**	%***	Nb	Ta	Ce	La
203167	H01-893	653	102.4	16	8300	89	1179	340
203172	H01-894	545	97.7	18				
203181	H01-895	431	32.8	8	>10000	774	1308	376
255718	H01-896	498	66.1	14				
255719	H01-897	519	80.2	16	>10000	322	2878	1170
255720	H01-898	513	21.9	5	7080	217	4963	2380

* Starting weight

** Weight of heavy concentrate

*** Heavies yield(%)

As shown above, the yields of heavies ranged from about 5% to 18%. Assuming that the minerals carrying the economically interesting elements all reported to the heavies, the assays of these concentrates should have shown upgrading - relative to those of the original untreated samples - ranging from about 5.5 to 20 fold. Comparison with Table 1 shows that, whilst upgrading was certainly achieved, it varied considerably in degree, both from sample to sample and from element to element within samples.

Estimated mineralogical compositions, based on microscopic examination of polished thin sections prepared from the four chemically analysed heavy concentrates in Table 2, are as follows:

TABLE 3: Estimated Mineralogical Composition of Heavy Concentrates

Sample:	203167 (conc.H01-893)	203181 (conc.H01-895)	255719 (conc.H01-897)	255720 (con.H01-898)
Amphibole	46.0	30.0	27.5	24.0
Pyroxene	1.5	-	-	5.5
Biotite	12.0	-	4.0	-
Apatite	12.0	27.0	36.0	43.5
Carbonate	3.0	14.5	17.0	11.5
Magnetite	11.5	3.5	3.5	2.5
Ilmenite	7.5	6.0	7.5	4.5
Pyrite	2.5	0.5	2.5	3.0
Pyrrhotite	3.5	18.0	1.5	3.5
Limonite	0.5	0.5	0.5	2.0

The heavy concentrates all consist dominantly of liberated mineral grains, 0.1 - 1.0 mm in size, plus scattered, coarser carbonatite rock fragments up to 2.0 mm or so. The latter are the source of the significant contents of carbonate contamination in three of the four concentrates.

All four heavies concentrates show generally similar compositions - being made up mainly of pale green amphibole, apatite, magnetite, ilmenite and Fe sulfides in varied relative proportions.

Nb/Ta and REE minerals could not be definitively recognized from the optical examinations. However, scattered grains of a variety of minor accessory constituents of uncertain identity are present, and examples of these (ranging in size from 0.2 - 1.0 mm) were located and marked for compositional checks by SEM/EDX microanalysis in two of the slides (H01-898 - which showed the highest Nb and Ta assays, and H01-898 - which had the highest Ce and La assays).

Results of this work were as follows:

Sample H01-895:

i) a grain of a weakly anisotropic phase thought to be ilmenite proved to have Nb and lesser Fe as its only detectable constituents (presumably combined with oxygen, which is undetectable by X-ray fluorescence).

ii) a strongly anisotropic, eutectoid-textured constituent, previously thought to be a form of ilmenite, proved to have Nb as its major constituent, together with accessory Ta, Fe and Ti.

iii) an isotropic translucent mineral occurring as small inclusions in the previous mineral, and thought possibly to be picotite (a variety of spinel), was found to be composed principally of Nb, with Ta, Ti, Ca and U as accessory constituents. This may be a calcium niobate such as the mineral ellsworthite.

iv) another grain previously thought to be ilmenite showed major Nb and accessory Fe (as in i)), accompanied, in this case, by detectable Ti.

v) another example of the microeutectoid phase (see ii))a was found to contain major Nb and lesser Fe and Ti (but, in this case, no detectable Ta).

Sample H01-898:

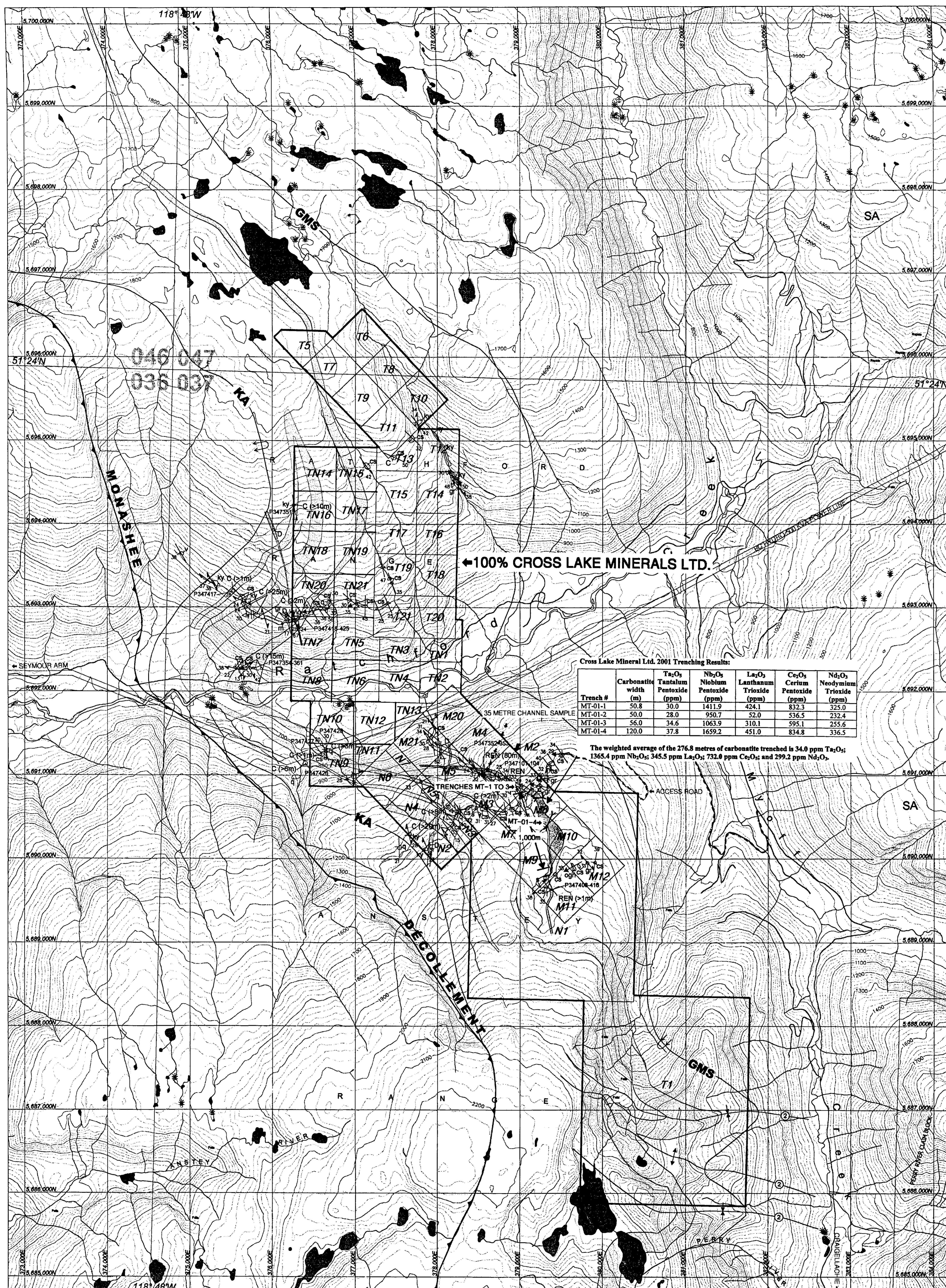
i) a dark red-brown translucent mineral was found to contain major proportions of Nb, Ta and U, and accessory proportions of Ca and Ti. It appears to be a Ta-rich variant of the grain denoted iii) in H01-985.

ii) a yellow-brown translucent grain likewise showed major Nb and Ta, and accessory Ca, Ti and U. It is obviously a variant of the previous mineral.

iii) a brown, sub-transparent grain was found to consist principally of Fe, Ca, Al and Si, with subsidiary Ce and La. This is consistent with the mineral allanite (a form of epidote). It is the only one

SECTION F: ILLUSTRATIONS

Plan Number	Title	Scale
MC-01-1 (after p.4)	General Location Plan	1:250 000
MC-01-2 (after p.4)	Location Plan	1:50 000
MC-01-3 (after p.4)	Mineral Claims	1:50 000
MC-01-4 (in pocket)	Property Geology	1:20 000
MC-01-5 (in pocket)	Trenching Plans	1:250



LITHOLOGIC LEGEND

- Selkirk Allocthon**
 SA
 SELKIRK ALLOCTHON
 Pelitic and semi-pelitic schist, qz-fp paragneiss, amphibolite
- Paleoproterozoic**
Monashee Complex
 cs
 CALC-SILICATE GNEISS. Fine to medium grained quartz-dioptide-actinolite(gamet) and quartz-biotite (hornblende) distinct layers, 1 - 10cm, variegated in dark shades of lavender and green. Unit may contain up to 50 % hornblende amphibolite layers and boudins, impure marble, and white orthoquartzite layers, in cyclic bedding units up to 25m thick.
- ky
 Quartz-Muscovite-Biotite-Gamet PELITIC SCHIST with well developed euhedral kyanite and/or acicular sillimanite in intrafolial mica-rich compositional bands. Contains up to 40 % pegmatite as semi-conformable lenticular bodies <1m to 25m wide. Unit is coarsely micaceous, well foliated, forms rubby tan-weathering outcrops.
- s
 Quartz-biotite SCHIST.
- q
 Feldspathic and micaceous QUARTZITE.
- gr
 Quartz-feldspar-mica (hornblende) PARAGNEISS. Resistant, massive outcrops.
- ogn
 Quartz-feldspar ORTHOGNEISS. medium grained, equigranular, leucocratic (<10 % mafics).
- v
 VOLCANICLASTIC containing scattered hornblende, plagioclase, and biotite phenocrysts to 15mm in compact quartzo-feldspathic groundmass. Grey, massive outcrops.
- m
 Impure calcitic MARBLE. Soft, recessive.
- REN
 REN CARBONATITE.
 Intrusive carbonatite. Massive to well layered orange-brown weathering. Unit consists of 60-80 % calcite, 10-30 % apatite, biotite/phlogopite, and accessory amphibole, pyroxene, and sphene with minor pyrrhotite, pyrite, magnetite, ilmenite, pyrochlore(?) and monazite(?). Extensive zones of mafic biotite-rich pyroxene-amphibole fenite and potassic feldspar-albite fenite occur as alteration envelopes peripheral to and within the carbonatite. The REN is a semi-concordant sheet like intrusion varying from <10m to at least 80m in true thickness. The thickest observed exposures (80m) are in the main creek canyon south of Ratchford Creek.
- f
 Biotite pyroxene-amphibole FENITE.
- C
 MOUNT GRACE CARBONATITE (MGC)
 Extrusive carbonatite: pyroclastic flow grading to ash-fall tuff. Thinly banded, tephra block size typically 1 - 5cm, with fenite, albite, and wallrock clasts flattened, aligned along banding. Distinctive buff-brown weathering. The widespread MGC horizon was originally mapped as three distinct layers varying from <1m to 32m in true thickness. This unit is now interpreted to be a single layer, tightly deformed into a pair of isoclinal folds trending approximately 160 degrees az and plunging 10 - 20 degrees toward the SSE. These folds are dextral as viewed down-plunge and are parasitic on the southwest overturned limb of the Mount Grace Syncline. Anomalous thicknesses of the MGC may reflect tectonic thickening, but the possibility of original depositional thickening of the carbonatite proximal to volcanic vent feeder zones cannot be discounted. At least one area of fenite alteration was mapped adjacent to the MGC layer south of Ratchford Creek, however contact relationships of the REN and MGC carbonatites were not observed.
- D
 Late DIABASE dykes, these cross-cut all earlier fabric.

Cross Lake Mineral Ltd. 2001 Trenching Results:

Trench #	Carbonatite width (m)	Ta ₂ O ₅ Tantalum Pentoxide (ppm)	Nb ₂ O ₅ Niobium Pentoxide (ppm)	La ₂ O ₃ Lanthanum Trioxide (ppm)	Ce ₂ O ₃ Cerium Pentoxide (ppm)	Nd ₂ O ₃ Neodymium Trioxide (ppm)
MT-01-1	50.8	30.0	1411.9	424.1	832.3	325.0
MT-01-2	50.0	28.0	950.7	52.0	536.5	232.4
MT-01-3	56.0	34.6	1063.9	310.1	595.1	255.6
MT-01-4	120.0	37.8	1659.2	451.0	834.8	336.5

The weighted average of the 276.8 metres of carbonatite trenched is 34.0 ppm Ta₂O₅; 1365.4 ppm Nb₂O₅; 345.5 ppm La₂O₃; 732.0 ppm Ce₂O₃; and 299.2 ppm Nd₂O₃.

SYMBOL LEGEND

- Primary layering
- Principal foliation
- Phase 1 fold, mineral lineation
- Phase 2 fold, lineation
- MGS** Mount Grace Syncline (phase 1)
- KA** Kirbyville Anticline (phase 1)
- Aniform, synform (phase 2)
- MONASHEE DÉCOLLEMENT**
- Geological contact - defined
- Geological contact - approximate, assumed
- Mapped outcrop
- Road - loose surface
- Road - rough surface & trail
- P347XXX — Sample tag ID and location

Sources:
 Certain geological detail in the northern map area after T. Hoy, "Geology of the Cottonball Lead-Zinc-Copper-Magnetite Layer, Carbonatites and Alkaline Rocks in the Mount Grace Area...", 90 Geological Survey Branch, Bull. 80, Fig. 3 & 17, Dec 1987.
 Certain geological detail in the southern map area after M. Journeay, "Geology of the North Central Frenchman Cap Dome", Geological Survey of Canada, O.F. 2447, Sheet 1, 1981.

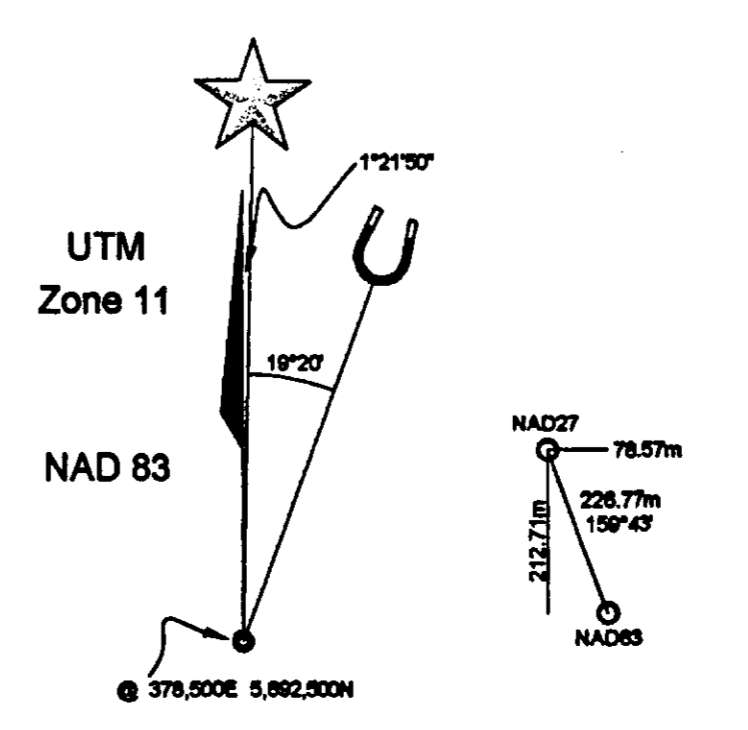
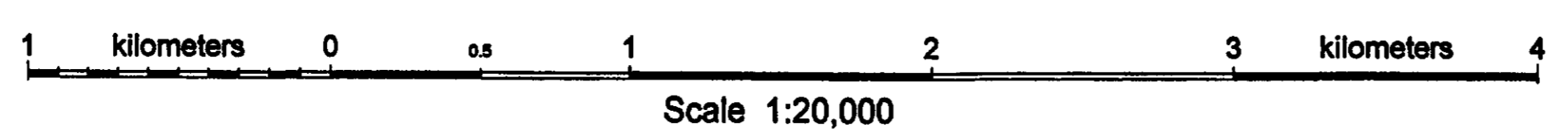


CROSS LAKE MINERALS Ltd.

Myoff Creek Project Area

Geology, Claims & Topography

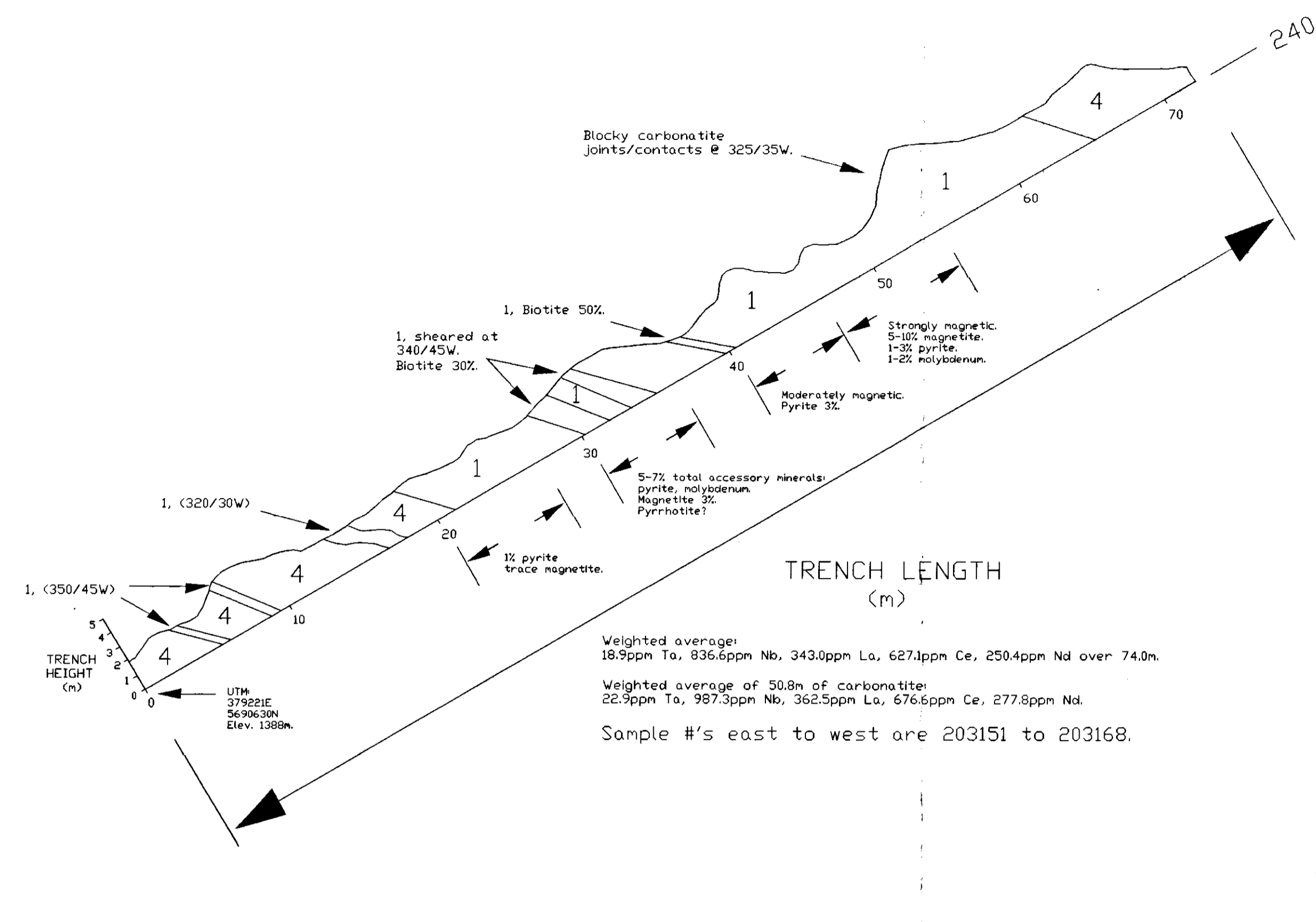
NOTE:
 Claim outlines from BC Mineral Titles Reference M082M07E & M082M07W positioned to a best fit with topography. Claim boundaries across map sheets incommensurate by about 140m and is unresolved herein. Claim boundaries otherwise located with a certainty no better than 50m.
 Most recent staking straddling Ratchford Creek located from claim map faxed by Mineral Titles Branch, Kamloops office, 25Sep01.



26811
 CROSS LAKE MINERALS LTD.
 MYOFF CREEK PROPERTY
 Kamloops Mining Division
 PROPERTY GEOLOGY
 Scale: 1:20 000 NTS: 82M/07E,W
 Plan No. MC-01-4 December 2001

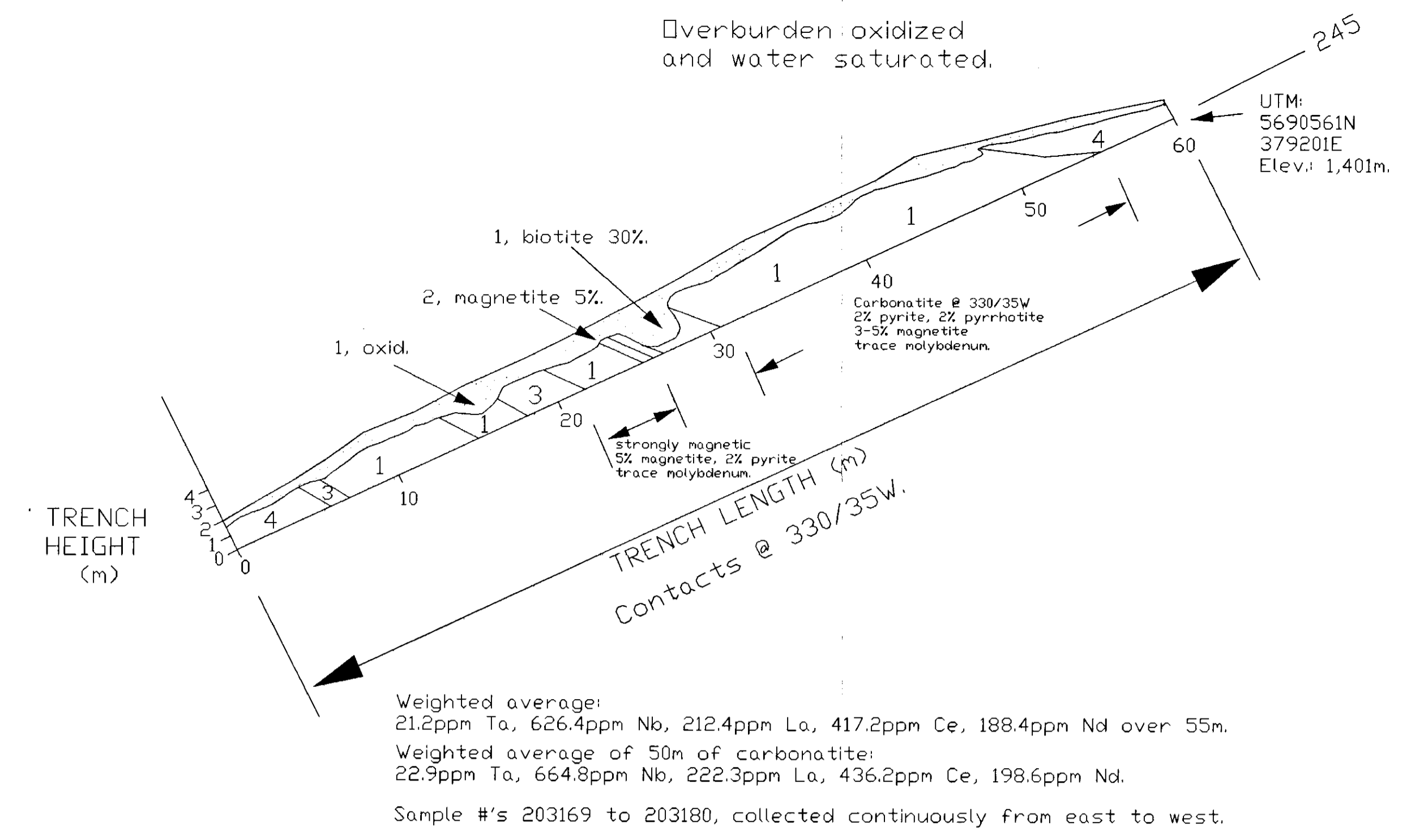
Trench MT-01-1

(View looking south at 150°)



Trench MT-01-2

(View looking south at 155°)



Trench MT-01-4

(Plan View)

Weighted average: 25.9ppm Ta, 1064.5ppm Nb, 352.8ppm La, 622.4ppm Ce, 261.5ppm Nd over 150 metres.

Weighted average of the 120m of carbonatite only: 31.0ppm Ta, 1160.3ppm Nb, 385.5ppm La, 687.7ppm Ce, 287.6ppm Nd.

Sample #'s 203194 to 203200 and 255701 to 255723, collected continuously from east to west.

Increase in accessory minerals. Magnetite-3%, pyrite-3%, pyrrhotite-1%, molybdenum<1%.

All carbonatite contacts and shear zones at 335/35W. Approximately 1% magnetite and pyrite throughout. Minor pyrrhotite and molybdenum.

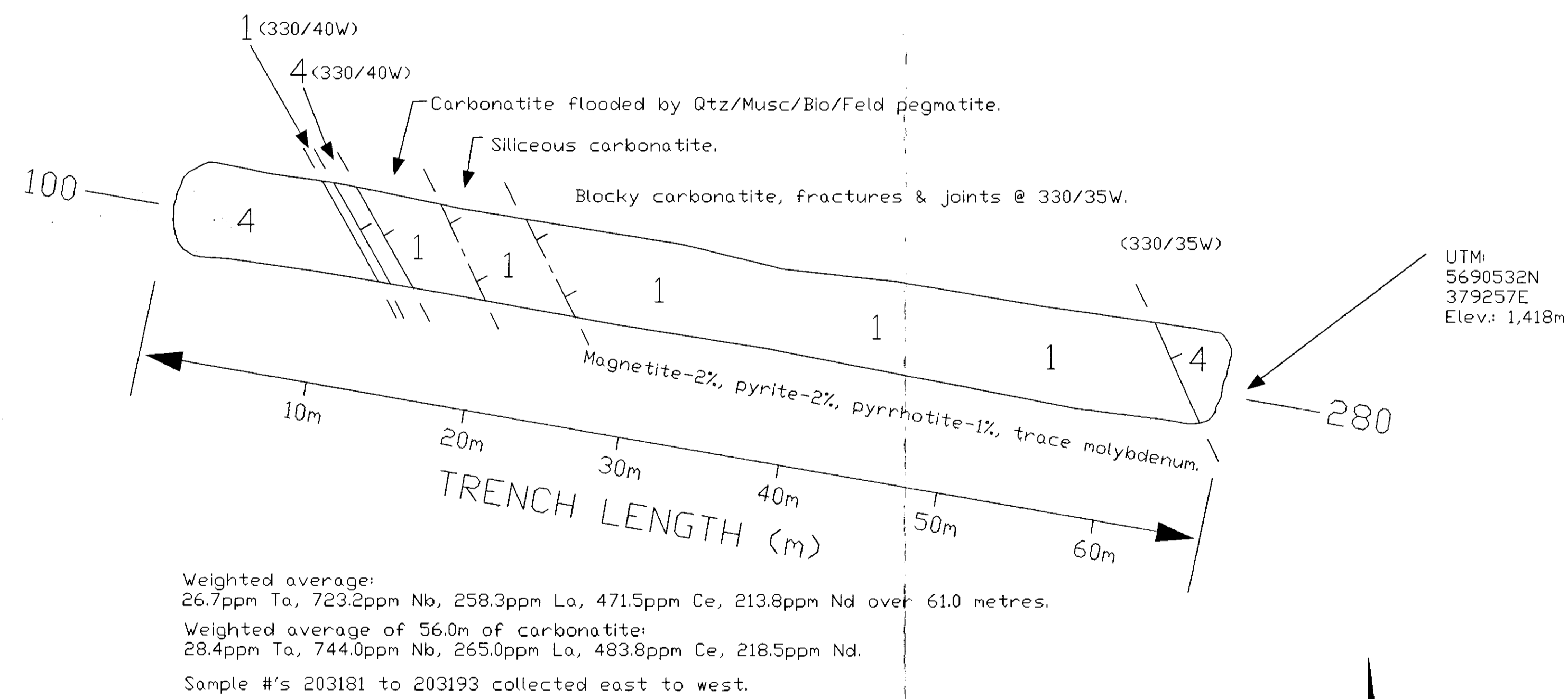
Pegmatite with quartz and feldspar crystals up to 5cm in size. Minor pyrite.

All contacts at 335/35W.

UTM: 5690316N, 379485E, Elev: 1,484m.

Trench MT-01-3

(Plan View)



GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,811

CROSS LAKE MINERALS LTD.

MYOFF CREEK PROPERTY
Trenching Plans

0 5 10 15 20 METRES

Drawn by: rgs
Date: Dec 2001

Scale: 1:250
Figure: MC-01-5