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REPORT ON THE GEOLOGY, GEOCHEMISTRY AND GEOPHYSICS OF THE MGM PROPERTY

Golden Mining Division
NTS 83 D/1 & 82M/16
Lat: 52°02' Long: 118°14'

Owner: John Leask; White Knight Resources
Suite 922 510 W. Hastings St.
Vancouver, B.C.
V6B 1L8

Operator: Teck Exploration Ltd.
960-175 Second Ave.,
Kamloops, B.C.
V2C 5W1

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,064

Craig Alford
Greg Thomson
January, 1992

SUMMARY

A field exploration program was carried out by Teck Exploration Ltd. on the MGM property between June 14 to August 26 1991. The work consisted of property-wide mapping and sampling, grid establishment (≈11.0 kilometres) with accompanying grid mapping, soil sampling and an HLEM survey. The overall cost of the 1991 program was approximately $200,000.

The MGM-TSAR property consists of 14 modified grid claims and one (1 unit) 2-post claim for a total of 152 units. The claims are located in the Cummins River area of the Golden Mining District of British Columbia.

Geological formations appear to be consistent throughout most of the property, generally striking northwest and dipping steeply southwest. The area north of the Cummins River appears to dip slightly shallower and is thrust over a sequence of strata similar to that observed south of the river.

Exploration work on the MGM property has located a similar geological sequence as that hosts the Cummins River massive sulphide occurrence (the Canyon showing). The Canyon showing is covered by Cominco's "Bend" claim group. Grades indicated by past drilling are subeconomic, however a 1991 drilling program by Cominco has extended the zone along strike to the southeast with improving grades in this direction, as well as down dip.

Grid work southeast of the Bend claims show a good correlation between soil geochemical values (Zn, Pb & Mn) and a persistent HLEM anomaly.

Geophysics, soil geochemistry and whole rock data indicate the sulphide horizon is continuous from the Cummins River south to Line 20+00S, a strike length of 3 kilometres.

The geology of the MGM property indicates good potential for hosting large tonnage 'sedex' style massive zinc,lead and silver mineralization within metasediments belonging to the Tsar Creek Formation of Mid to Lower Cambrian age.

RECOMMENDATIONS

The next stage of exploration should involve a program of diamond drilling south of the Cummins River. Drill targets would test the mineralized zone on the MGM property immediatelye southeast of the Cominco (Bend) Claims property. Further drilling would test the depth and strike length of the sulphide zone.

Greater investigation of the region north of the Cummins River would be required before a drilling program can be recommended for the area.

Stream silt or moss mat sampling combined with reconnaissance examination of the area surrounding around the claims may serve to extend the known limit of mineralization within the Tsar Creek Formation.

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1. INTRODUCTION

The MGM and TSAR claim groups surround The "Bend" SEDEX-style Zinc-Lead mineral prospect, currently owned and under exploration by Cominco Ltd.

This report encompasses geological mapping and sampling as well as grid related geochemical and geophysical surveys completed on the MGM and TSAR claim groups from June 14 to August 25, 1991.

The group of claims were optioned from John M. Leask - White Knight Resources Ltd. under the terms of an agreement dated April 12, 1991.

2. LOCATION AND ACCESS

The property lies on the east side of the Rocky Mountain Trench approximately 100km northwest of Golden, B.C. (Figure 1), located both north and south of the confluence of Cummins River and Columbia Reach (Kinbasket Lake). The property is located on NTS map sheet 83D1 and 82M/16, bounded by latitude's 51°59' to the south and 52°05'to the north and longitude's 118°04' to the east and 118°17' to the west.

The property may be reached by several modes. Large freight must be brought in by a barge service out of Bush Harbour, located approximately 50km southeast of the claim area. This is usually a 4 hour one-way trip. Alternately, the area can be reached via helicopter services out of Golden or Revelstoke. A float plane service from Golden is also available. Flight time from Golden or Revelstoke is approximately one hour.

The closest road access to the property is from the northwest, where a logging road at Redrock Harbour provides access south to Mica Creek and Revelstoke via Highway 23. To the southeast, the Sullivan Road provides access south to Golden via the old Big Bend Highway.

The property itself is well covered by recent clear cut logging areas and logging roads which are in good driveable condition. Several are present between Cummins River and Tsar creek.

Accommodation during the course of field work was provided through rental of the Tsar Creek (Evans Forest Products Ltd.) logging camp.

The portion of the property lying to the north of Cummins River is crossed by one main logging road; more are planned for 1992. Access to that area is via a 16 ft. motor boat.

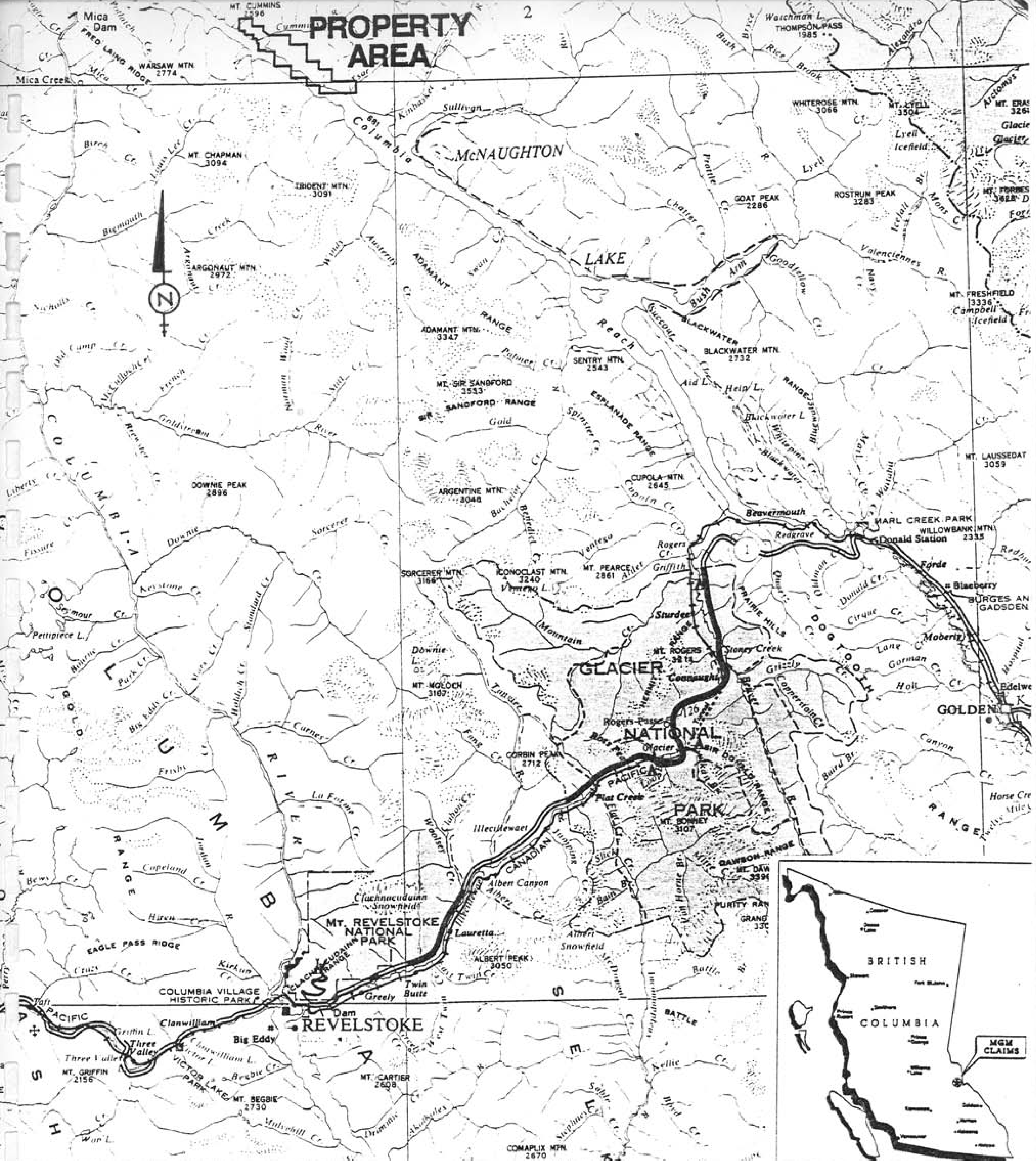


FIGURE 1

Scale – 1 : 600 000
(1 cm = 6km)

10 0 10 20 30 40 50 60 70 Km

Teck Exploration Ltd.

MGM PROPERTY

PROPERTY LOCATION MAP

3. PHYSIOGRAPHY AND VEGETATION

Geographically the property is within the southern extent of the Selwyn Range. These mountains have rugged peaks with gently to moderately inclined southwest facing slopes.

For the most part the property is covered by a veneer of alluvial sediments ranging in thickness from 1 to 20 metres. A portion of the MGM 8, TSAR 1, TSAR 3, TSAR 5, TSAR 7 and TSAR 8 claims occur below the Columbia Reach waterline which varies seasonally from approximately 730-765 metres (≈2400-2500 ft).

Climatologically the property lies within the Interior Wet Belt where precipitation can exceed 100 centimetres per year. Vegetation is thick and lush. Common evergreens are cedar, douglas fir and hemlock at lower elevations giving way to lodgepole pine and balsam fir above 1370 metres.

Elevations across the property range between lake level at approximately 762m, to the top of the property boundary at 1,800m. The entire property is below treeline which is approximately 1,970 metres.

Winters in the area are usually long and severe with snowfall often exceeding 9 metres.

4. CLAIM STATUS

The property, located in the Golden mining division, consists of the MGM, MGM 2-5, MGM 8 TSAR 1-8 and ARM claims totalling 152 units (Figure 2). The claims are registered in the name of Teck Corporation held in trust for White Knight Resources Ltd. The following table lists all pertinent claim data.

Table 1

CLAIM RECORDS

Claim Name	Record No.	Units	Record Date	Expiry Date
MGM	373	9	AUG/20/79	AUG/20/95
MGM 2	422	2	SEPT/19/79	SEPT/19/95
MGM 3	423	6	SEPT/19/79	SEPT/19/95
MGM 4	1004	20	AUG/4/82	AUG/4/93
MGM 5	1130	5	JAN/28/83	JAN/28/92
MGM 8	2156	6	MAY/27/90	MAY/27/95
TSAR 1	2323	16	FEB/17/91	FEB/17/92
TSAR 2	2324	20	FEB/17/91	FEB/17/92
TSAR 3	2325	12	FEB/18/91	FEB/18/92
TSAR 4	2326	12	FEB/18/91	FEB/18/92
TSAR 5	2327	6	FEB/16/91	FEB/16/92
TSAR 6	2328	12	FEB/18/91	FEB/18/92
TSAR 7	2329	6	FEB/16/91	FEB/16/92
TSAR 8	2330	18	FEB/17/91	FEB/17/92
ARM	2331	1	FEB/17/91	FEB/17/92
Total: 152 Units				

The MGM, MGM 2-5, MGM 8 and TSAR 1 (totalling 65 units) are grouped as the MGM Group. The TSAR 2-8 and ARM claims (totalling 87 units) are grouped as the TSAR Group.

5. PREVIOUS WORK

Table 2 chronicles the work and results of mineral exploration within the area.

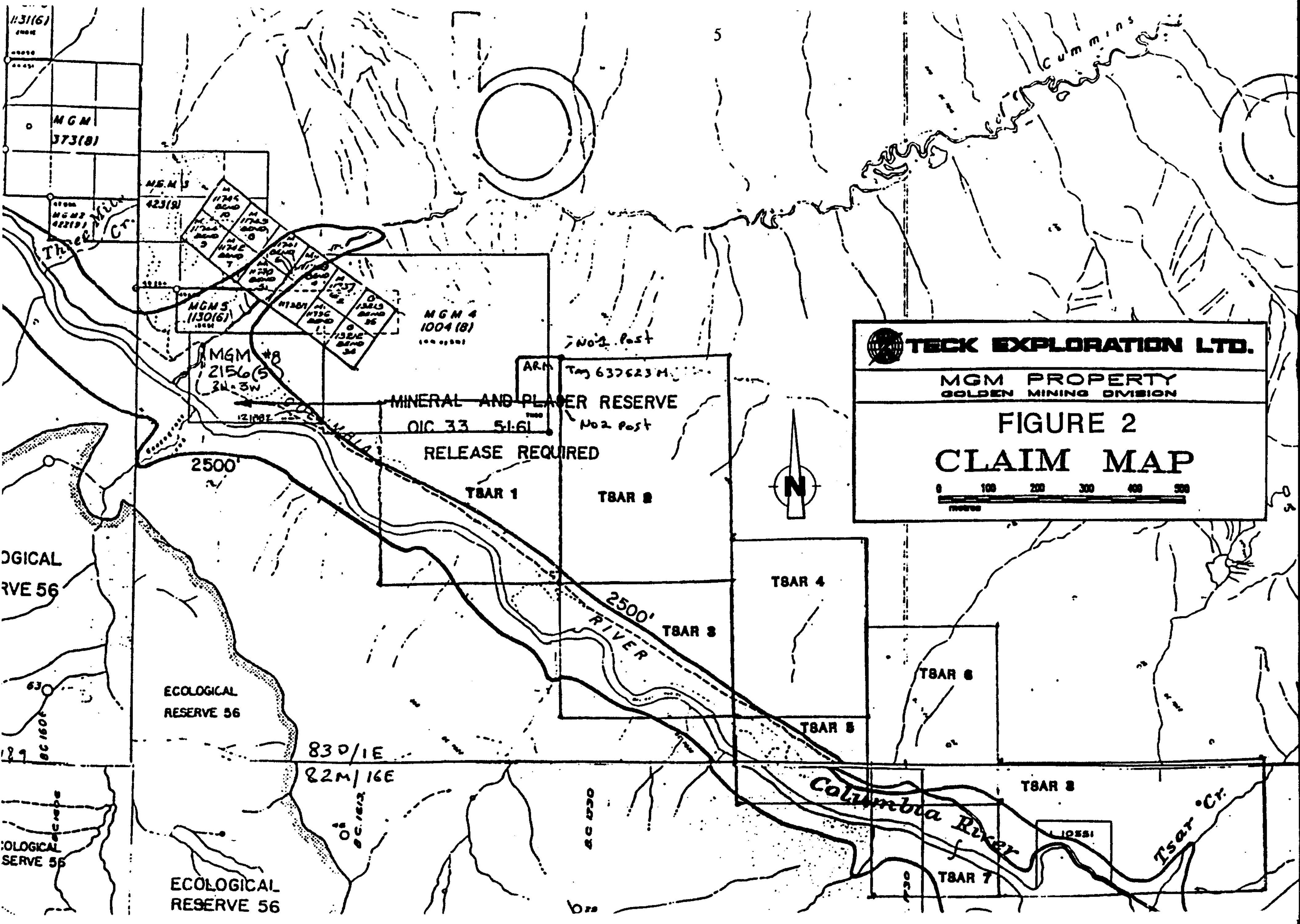

TECK EXPLORATION LTD.
MGM PROPERTY
GOLDEN MINING DIVISION
FIGURE 2
CLAIM MAP
0 100 200 300 400 500
metres
N
MINERAL AND PLACER RESERVE
OIC 33 5.1.61
RELEASE REQUIRED
MGM 373(8)
MGM 3 423(9)
MGM 5 1130(6)
MGM 4 1004(8)
MGM #8 2156(5) 3N-3W
No 1 Post
No 2 Post
ARM
TSAR 1
TSAR 2
TSAR 3
TSAR 4
TSAR 5
TSAR 6
TSAR 7
TSAR 8
IOSSI
2500'
RIVER
Columbia River
Tsar Cr.
Cummins
ECOLOGICAL RESERVE 56
83 D/1E
82M/16E

TABLE 2 PREVIOUS WORK

YEAR	COMPANY	WORK	RESULTS
1940 ?		Big Bend highway Construction	Discovered Canyon zone on Cummins river.
1949		First claims staked	Claims lapsed.
1966	Cominco Ltd.	Staked the Bend group of claims (45 units)	
1967	Cominco Ltd.	Geological mapping 240m of drilling (13 holes) Trenched main showing on either side of Cummins river	Outlined the Canyon zone to be a stratiform body of massive sulphide mineralization yielding an average width of 6.5m of 3% combined Zn-Pb & 0.25 oz/t Ag. Considered occurrence to be of 'fissurevein' type.
1968-1974	Cominco Ltd.		Cominco gradually reduced claim group to the 12 now currently being held.
1970	Laura Mines Ltd.	Geological mapping Soil sampling ≈490m of drilling (4 holes - canyon showing)	A coincident Pb-Zn geochem anomaly was outlined in the area of the known mineralized structural trend. No other geochemical trend was outlined. Expanded known width of the canyon zone to 8.6m however as a result aggregate grades are lower than Cominco's.
1979	John Leask & Assoc.	Staked the MGM and the MGM2-4 claims Reconnaissance geological mapping	Reinterpreted the Bend mineral occurrence to be of a shale hosted massive sulphide type similar to the Cirque and Howards Pass deposits.
1981	E&B Explorations Inc.	Geological mapping	Related the north road showing, the canyon showing and a pyrrhotite showing within the Tsar creek area to one conformable mineralized unit with a strike length of approximately 12 kilometres.
1983	Riocanex	Carried out Magnetic, VLF-EM and SE-88 Genie surveys over the MGM and the MGM 2,3 and 7 claims	A banded mag anomaly striking ≈100° most probably caused by magnetite was observed. No E.M. or magnetic response was observed over the known mineralization.
1985	Esso Minerals Canada	Geological mapping Soil sampling VLF-EM and large loop EM-37 over north showing ≈212m of drilling (2 holes - north showing)	Further outlined the north road showing (3km north of canyon zone). Drill results neither confirmed nor denied the presence of the massive sulphide extension to the North road area. A picture of greater geological complexity was encountered.
1987	Cominco Ltd.	Geological mapping Road access and drill site construction	Enhanced access to mineralized area. Observed the stratabound mineralization over a longer strike/dip distance than previously inferred.
1991	Cominco Ltd.	≈1200m of drilling (3 holes)	Traced mineralized dolomite unit to greater depth and southeasterlyextent.

6. 1991 PROGRAM

Table 3 summarises the work completed in 1991.

Table 3

MGM WORK SUMMARY & SCHEDULE - 1991

WORK	DATES
Project Preparation	June 3-11
Mobilization	June 12-14
General Mapping, prospecting and sampling	June 15-22 July 1-19 Aug 2-8 Aug 15-25
Line cutting, grid mapping and soil sampling	July 20-Aug 1
Geophysical survey (HLEM)	July 12-15 July 27-Aug 1
Blasting & Hand trenching	Aug 9-14
Demobilization	Aug 26-28
Drafting of maps & final report	Aug 29-Sept 20

The primary focus of the exploration program was to show geologic continuity between the Cummins River - Bend massive sulphide prospect and possible mineralized zones both north and south of Cominco's Bend claims.

In 1991, 65 field days were spent on the MGM property between June 14 and August 25. The program consisted of geologic mapping, concurrent rock sampling, stream silt sampling, soil sampling and a HLEM survey. In addition drill core from previous workers was relogged.

General prospecting and mapping was carried out throughout the property. Logging roads and cuts were utilized to best advantage. The geologic investigation consisted of 1:10,000 scale property mapping as well as 1:5,000 scale mapping of the grid area near Cominco's Bend claims. A total of 28 rock and 49 stream silt samples were collected as part of the prospecting and mapping program.

Minconsult Mineral Exploration Services of Vernon, B.C. were contracted to establish a 10.5 line kilometre cut grid adjacent to the southeast extent of the Cominco claims. Lines were cut to I.P. standard with picketed stations every 50m. Two additional lines were flagged in, one on Cominco's ground over a known showing and another extending the grid 100m to the southeast. All grid lines have been geologically mapped and the soil sampled every 50m or 25m in areas of suspected favourable geology. A total of 232 soil samples were collected.

A total of 7400 metres of ground HLEM were surveyed by Maple Services\MWH Geo-surveys Ltd. on the MGM grid. In addition a 350 metre line was surveyed on Cominco's property in order to observe the geophysical signature concordant with the mineralized unit.

Blasting and hand trenching was conducted by Minconsult Mineral Exploration Services. Trenching was carried out on Line 20+00S between stations 3+90E and 5+10E.

Soil and rock geochemical samples were analyzed by Eco-Tech Labs of Kamloops, B.C.

7. GEOLOGY

A. Regional

The property lies just east of the Purcell Thrust Fault and is on the western limb of the Porcupine Creek Anticlinorium (Figure 3). The Purcell Thrust Fault zone closely follows the Rocky Mountain Trench and is delineated by the contrasting stratigraphic sequence on either side of the trench (Simony et al., 1980). The Hadrynian Windermere Group rocks of the Selkirk Mountains west of the trench have been thrust up against the Mid-Cambrian to Upper Proterozoic Chancellor, Gog and Miette Groups of the Rocky Mountains (Wheeler 1964).

The property is in an area of dominantly Lower to Mid Cambrian miogeosynclinal rocks. In the Cummins River area these sedimentary rocks form a thick, conformable stratigraphic succession.

The Cambrian section is represented by three main lithological elements: the Mid to Upper Cambrian Kinbasket Limestones and the Mid to Lower Cambrian Tsar Creek metapelites of the Chancellor Group and the Lower Cambrian Quartzites of the Gog Group. All lithologies have been metamorphosed to middle and upper greenschist assemblages.

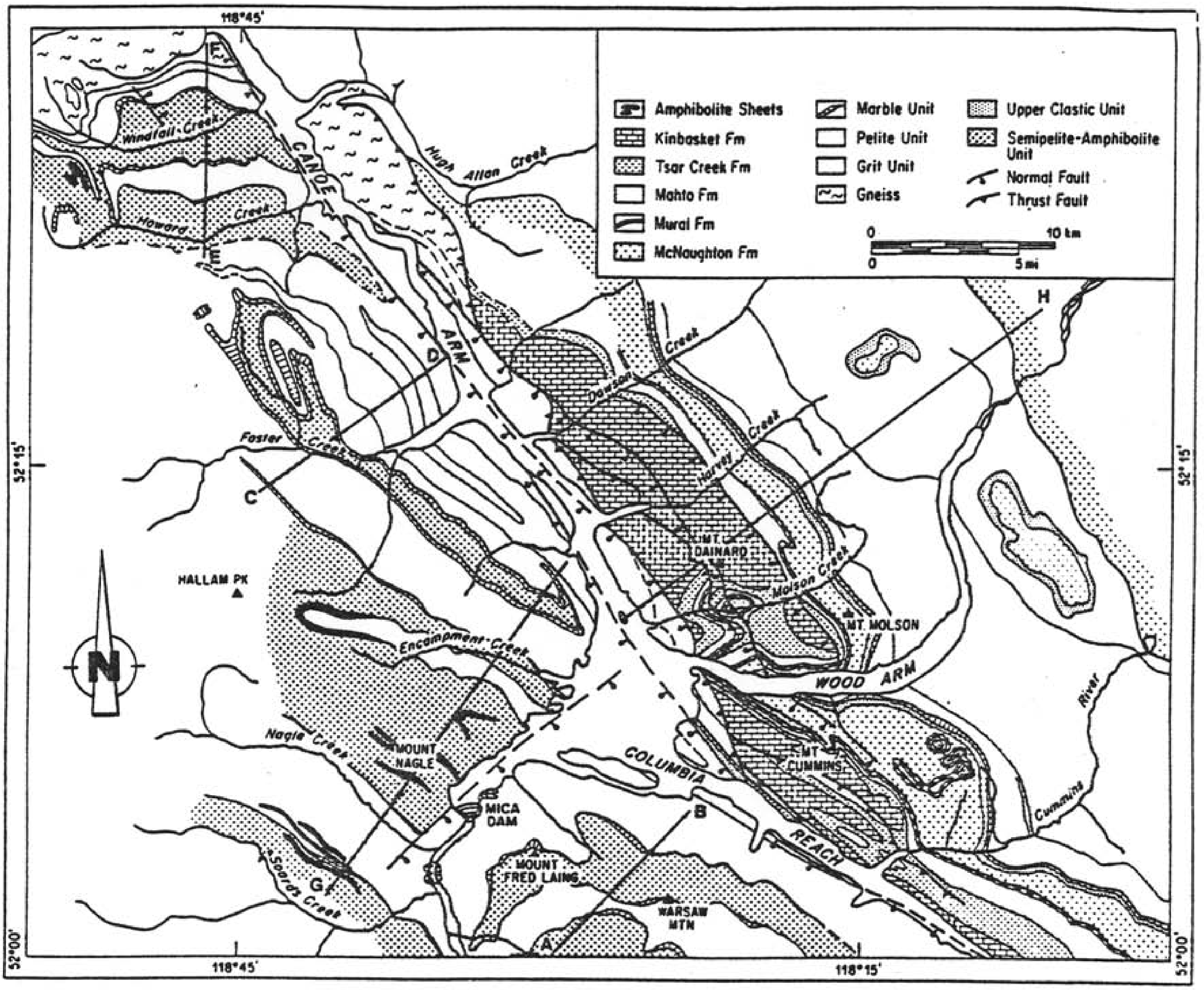
B. Property Geology

The 1991 field mapping concentrated mainly in the area between Cummins River and Tsar Creek (Figure 4a & 4b). Outcrop exposure is very limited throughout most of the property. Logging roads and clear cuts have assisted greatly in providing sufficient exposure to allow distinction between major rock units.

Outcrop exposure is poor throughout the Tsar Creek Section, however the upper Gog quartzite-lower Tsar contact is evident as the quartzites provide a steeper erosionally resistant ridge. The upper Tsar Creek-lower Kinbasket contact is gradual and thus its placement is very much subjective.

Mapping south of Cummins River indicates a correlatable strike length of approximately 13.0 kilometres for the conformable Kinbasket Limestones, Tsar Creek metapelites and Gog Group Quartzite formations.

FIGURE 3



Generalized geologic map of southern Canoe River area.

I) Lithology

Lithologies outcropping are those of the Gog and Chancellor groups;

Gog Group

The Lower Cambrian Gog Group and consists of three formations, from youngest to oldest: Mahto, Mural and McNaughton. For the purpose of the 1991 investigation, Gog Group lithologies have not been subdivided by formational boundaries.

In the property area this sequence consists of milky to greyish white quartzite, light grey to pale pink micaceous quartzite, thinly laminated light grey to pink quartzofeldspathic (psammitic) schists, chert, interbedded biotite and garnet schists and a greyish white to light buff coloured marble. It is thought that the marble unit observed correlates with the Mural Formation.

The Gog Group quartzites conformably overlie Upper Proterozoic Miette Group metasediments which were not observed in outcrop on the property. The overall thickness of the Gog Group is estimated to be slightly greater than 1,000 metres.

Chancellor Group

The Tsar Creek and Kinbasket Formations of the Chancellor Group are recognized to be Middle Cambrian. Due to structural thickening, stratigraphic thickness are hard to establish. Estimates for the thickness of the Tsar Creek Formation have ranged from 100 to 600 metres (Simony et. al. 1980) and thickness for the Kinbasket Formation have ranged from 150m (Meilliez 1972) to greater than 1,000 metres (Simony et. al. 1980).

Tsar Creek Formation

The Tsar Creek Formation is dominantly a pelitic schist of variable metamorphic grade and argillaceous component. Lithological units recognized within this formation were muscovite and biotite schists, garnet-mica and garnet-staurolite-mica schists, greywacke turbidites, micaceous limestone and argillite.

Metamorphic grade throughout the property ranges from lower to upper greenschist facies up to amphibolite or garnet-staurolite-kyanite grade. Muscovite, biotite and almandine garnet are common metamorphic minerals. Kyanite and sillimanite were observed in a few localities.

The lithologies associated with the mineralization are a quartz sericite schist, mineralized dolomite, argillaceous garnet schist and a micaceous quartzite. Such lithologies may relate to metamorphosed shales, cherts and carbonates which are consistent with deposition within a 'starved basin' environment (Eckstrand 1984).

Kinbasket Formation

The Kinbasket Formation is dominated by pale grey to grey, thinly laminated, sandy to silty limestones with interlaminated pelitic sediments. Interstratified beds of pelitic sediments from 2-30m in thickness occur within the limestones. Thinly bedded, grey micritic limestones with thin graphitic laminae are also recognized with the formation.

The limestones have been metamorphosed to impure marbles and pelitic material within the limestones have formed micaceous and garnetiferous horizons. Similarly, the interstratified pelitic layers have been metamorphosed to mica schists and garnet mica schists. Under the local metamorphic grade the Kinbasket limestones generally appear as a rusty to buff weathered, biotitic and locally garnet bearing grey unit.

II) Structure

Regional structure in the area is dominated by the presence of the Columbia River-Purcell Fault systems and the Porcupine Creek Anticlinorium. Within the Cummins River area, the Purcell Thrust juxtaposes Hadrynian Windermere Group lithologies against Cambrian sequences east of the Rocky Mountain Trench. The Porcupine Creek Anticlinorium (PCA) exposes Chancellor Group rocks on the western flank and carbonate facies rocks to the east, with the Gog and Miette groups in the core (Lickorish and Simony 1991). The entire property exists on the westernmost extent of the PCA.

Three phases of deformation have been recognised within the region (Fyles 1960 and Simony et al., 1980). All phases of folding have been acknowledged to be essentially coaxial, thus, folding has not interrupted the stratigraphic sequence and linear extent of the rock units.

It has been noted (Meillez 1972) that the tight folding characterizing the Chancellor Group does not penetrate the Gog group and is presumed to be due to a detachment horizon in the basal Tsar Creek Formation.

The schistosity that pervades the area (S_2) is axial planar to the large scale (F_2) folds that make up the PCA (Lickorish and Simony 1991). The rocks of the Chancellor Group have an earlier bedding parallel cleavage (S_1) and many small refolded isoclines. First phase folds (F_1) are isoclinal and occur on single layer scale with the resultchistosity parallel to bedding (S_0). Third phase fold structures were not recognised during the property examination.

Two structurally distinct areas exist within the property and for the most part occur on either side (north and south) of the Cummins River.

South Side

A virtually continuous stratigraphic sequence from the Kinbasket to the Gog Group quartzites is exposed on the property between Cummins River and Tsar Creek. The sequence is rightside up, with tops to the southwest (see Figure 6a).

Local bedding (Figure 7) and schistosity (Figure 8) orientations were observed to be essentially parallel. Units within the map area generally strike between 125° & 140° and dip southwest, between 50° & 65°. Mineral lineations, cleavage-bedding intersection lineations and minor fold axes plunge approximately 10°-20° to both the northwest and southeast (Figure 9a & 9b).

A compilation of bedding and schistosity contours and lineation maximums is displayed on Figure 10. The poles to bedding and schistosity fit two great circles with corresponding poles to the great circles approximately equal to the maximum linear fabric concentrations. The two great circles and linear fabric concentration indicates a curvilinear F_2 fold axis, concordant with a sheath fold style, however, planar and linear data maximums indicate the predominant plunge is toward the northwest.

The dominant structures within the Kinbasket and Tsar Creek rocks are the second phase (F_2) asymmetric step-like folds with their axial planar cleavage (S_2) near parallel with the average long limb orientation of 131°-56°SW.

North side

Two major structural elements define the area north of the Cummins River.

Outcrop within the Cummins canyon exposes, except for a quartzofeldspathic psammite unit, the same stratigraphically continuous section from Kinbasket limestones, through the Tsar creek metapelites to the Gog group quartzites as is observed throughout the south side of the property.

The character of the quartzofeldspathic psammites-Kinbasket limestones contact and the psammite unit infer a fault at this location, where the psammite unit is interpreted to belong to the Gog Group and has been thrust on top of the Kinbasket limestones. Previous investigations have interpreted a similar fault and geological sequence however, it now appears appropriate to project the fault south of the Cummins River to the Columbia reach and where it is thought to terminate against the Rocky Mountain Trench.

FIGURE 6a
CROSS SECTION A—B
SOUTH OF CUMMINS RIVER

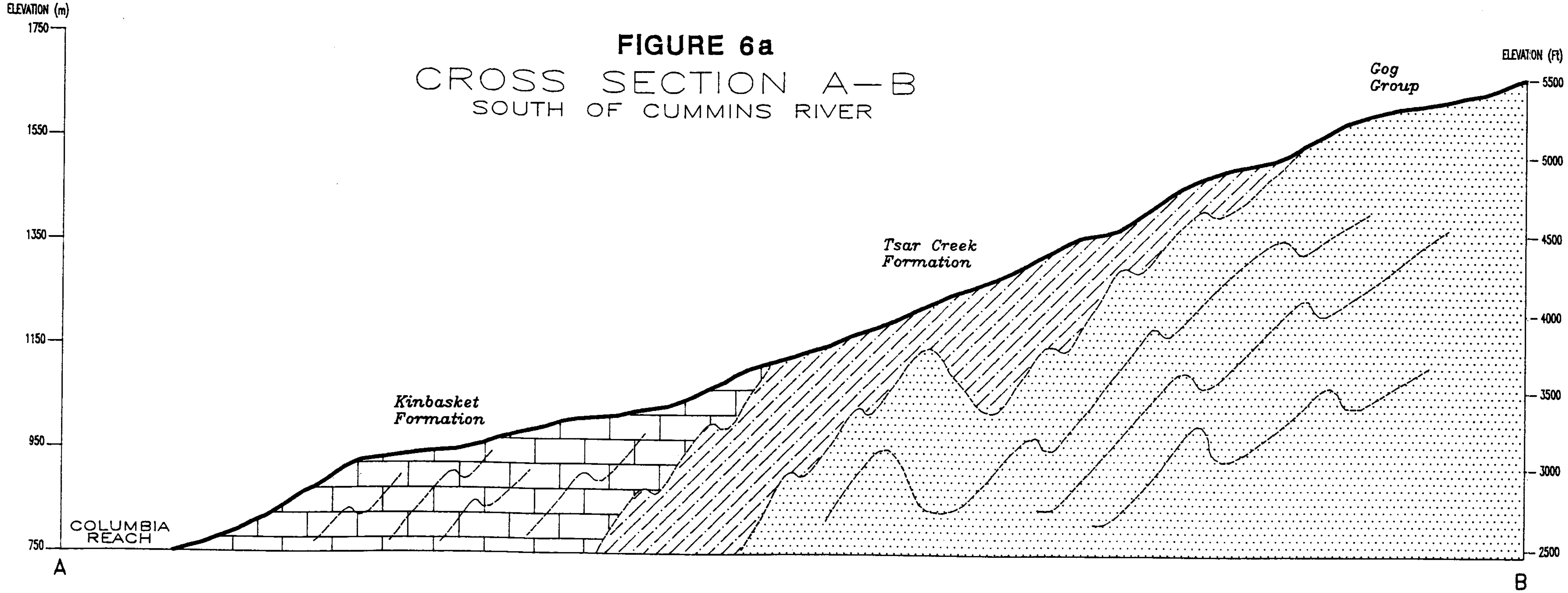
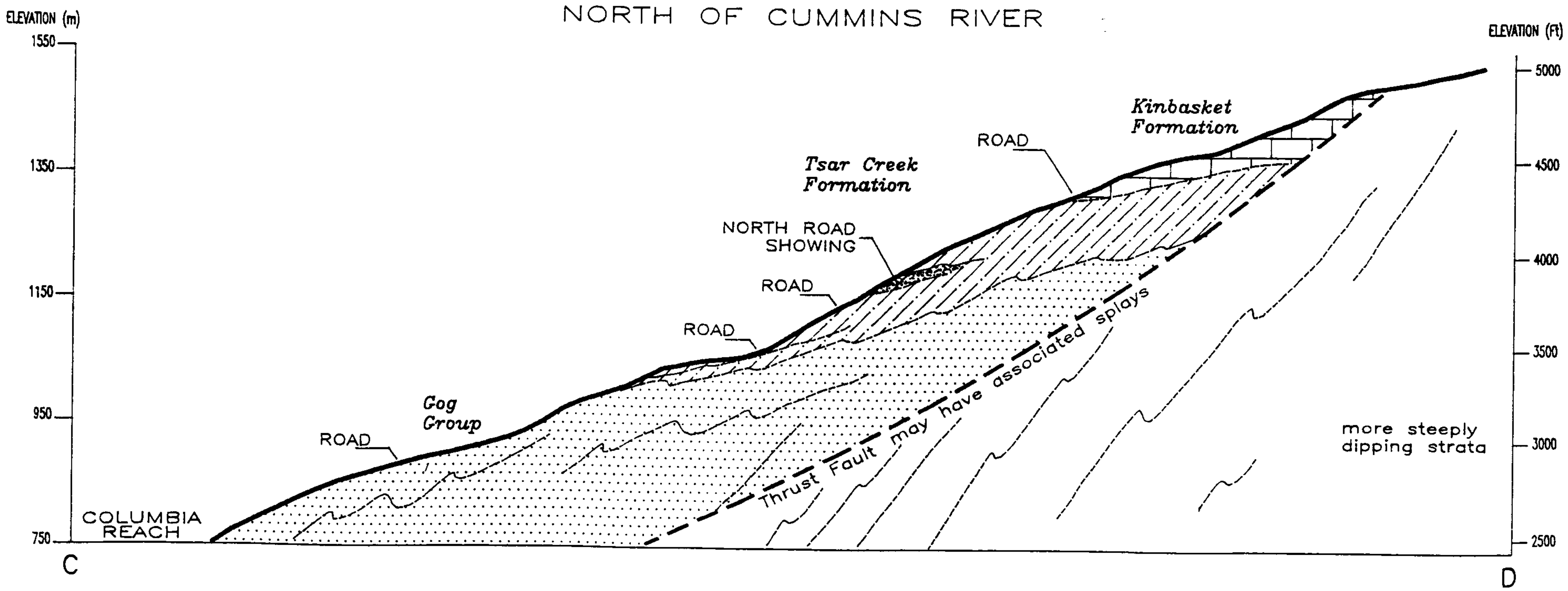


FIGURE 6b
CROSS SECTION C—D
NORTH OF CUMMINS RIVER



TECK EXPLORATION LTD.

MGM PROJECT

FIGURE 6a & 6b

CROSS SECTIONS AT 27°
(LOOKING NORTH WEST)

DATE DRAWN: SEPT. 11, 1991	SCALE: 1:10,000	DWG. NAME: MGM–SEC1
COMPILED BY: C.A.	JOB No: 1703	
DRAWN BY: S.A.	NTS No: 83D/1	

FIGURE 7

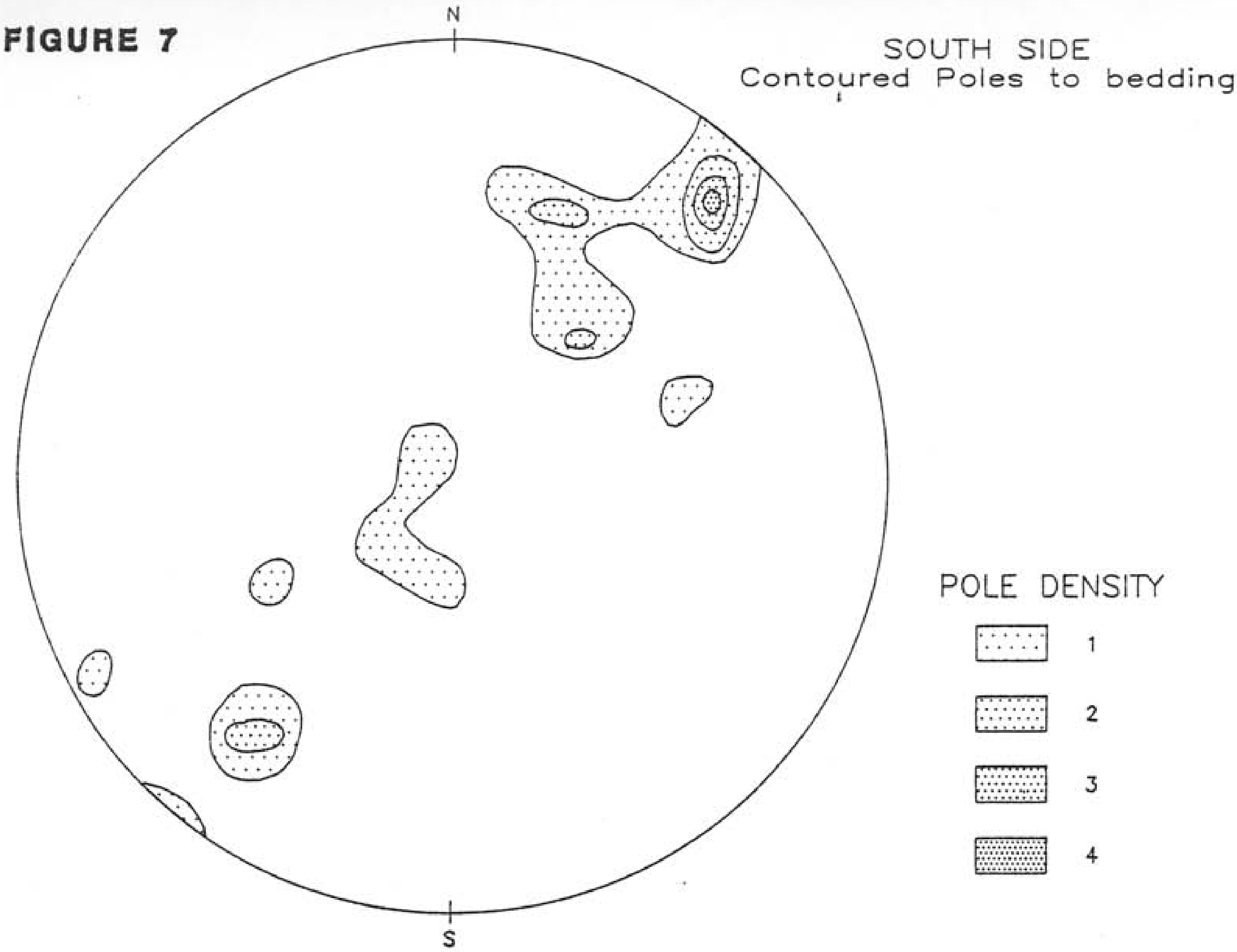


FIGURE 8

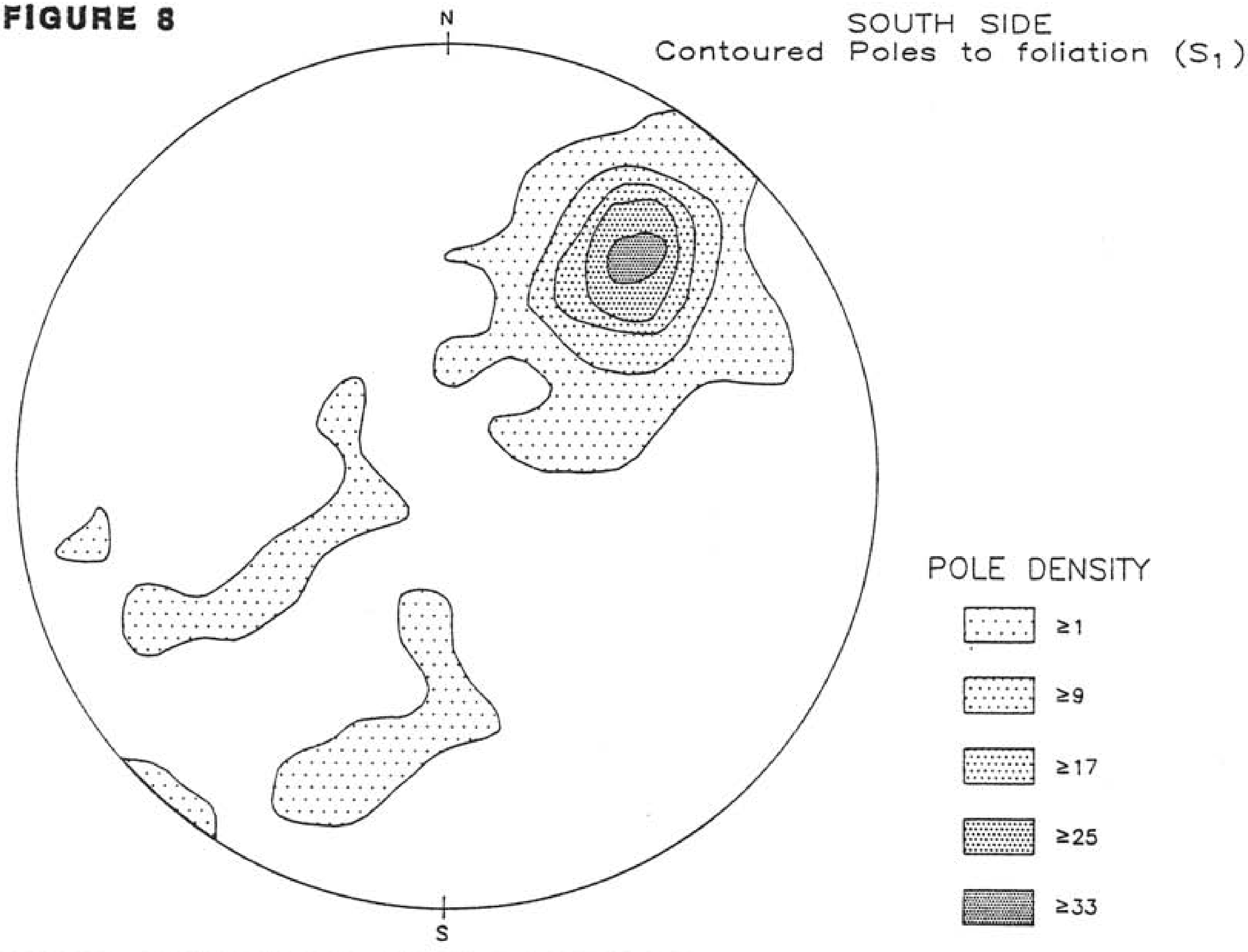


FIGURE 9a

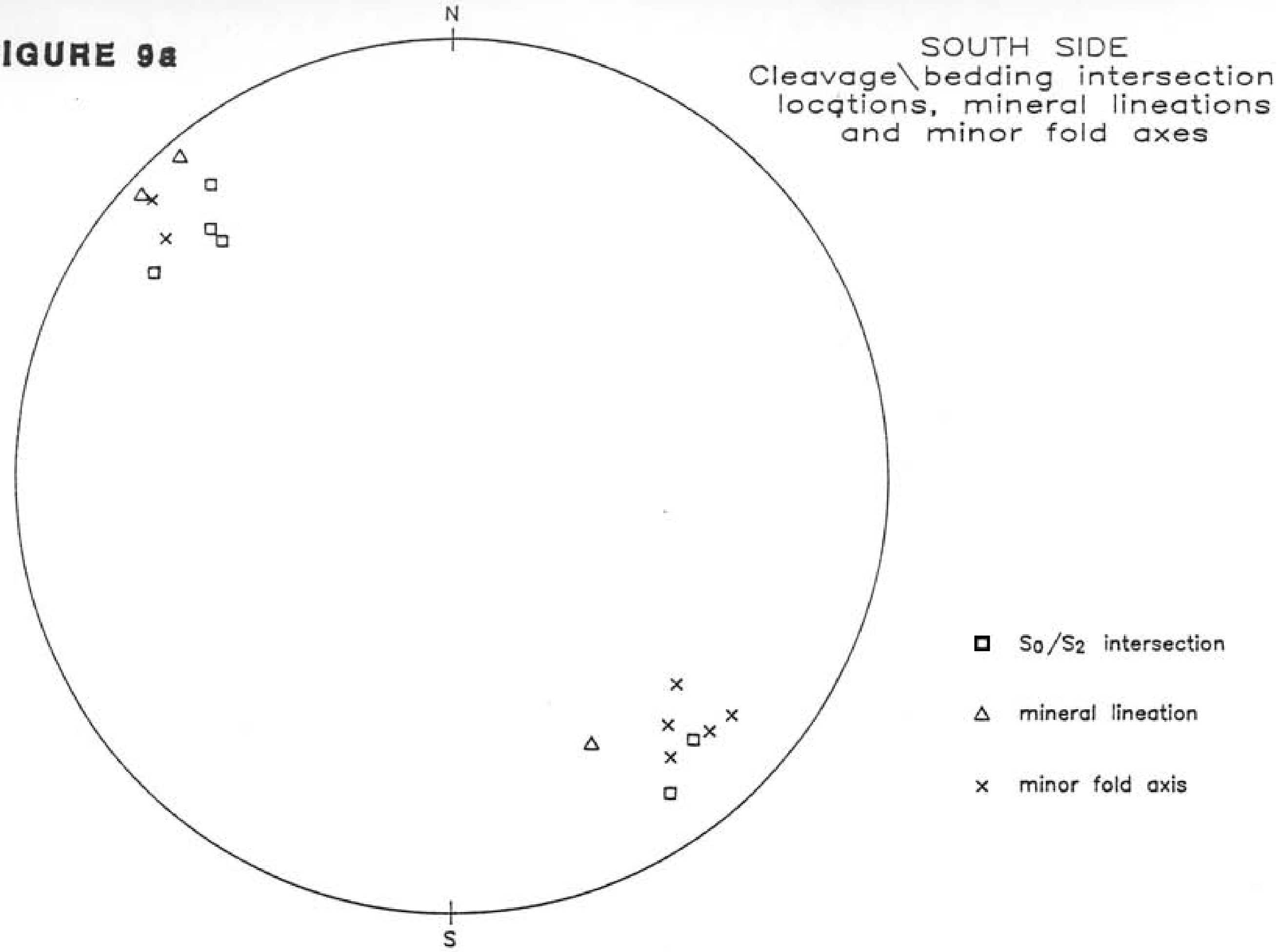


FIGURE 9b

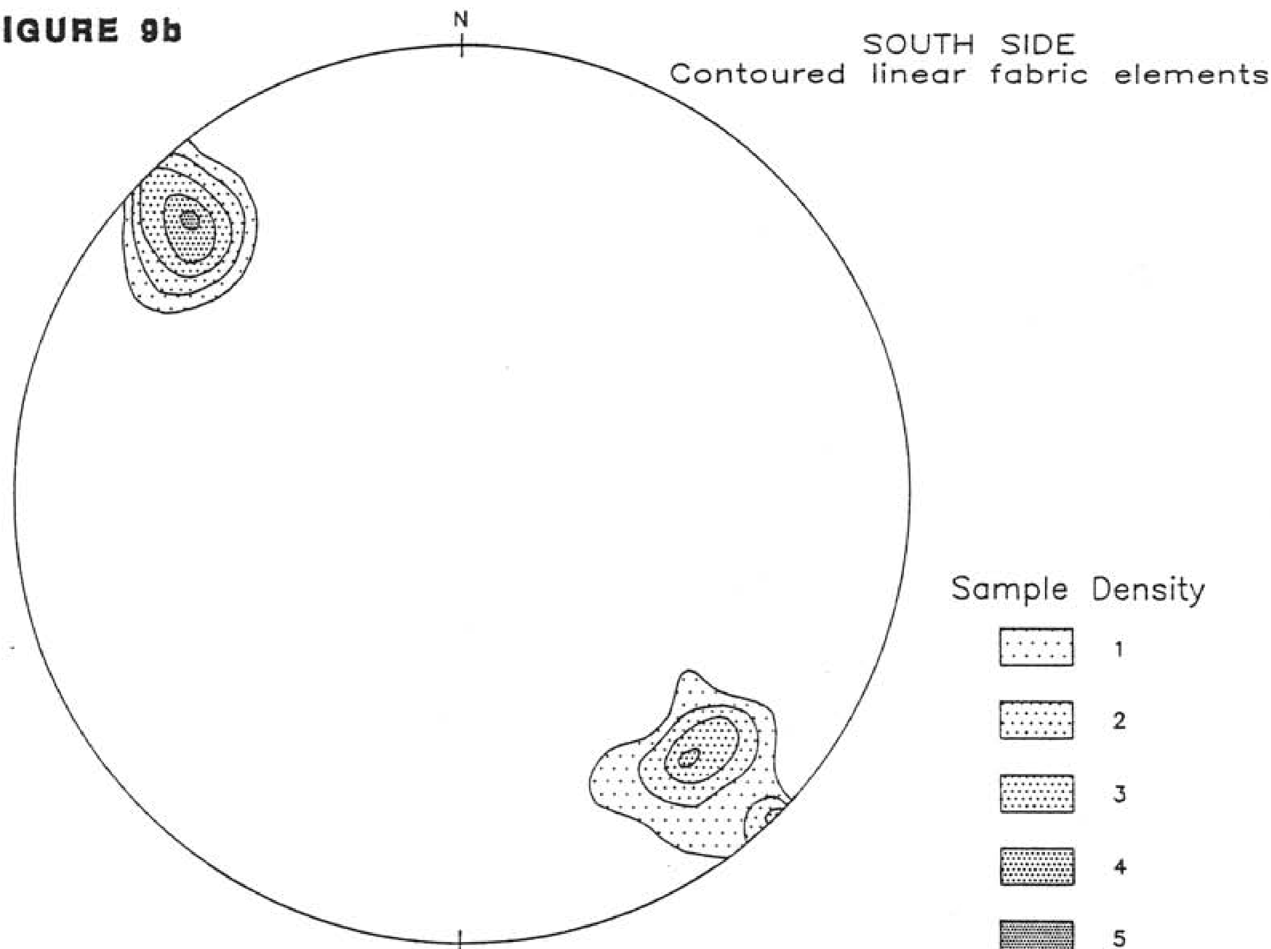
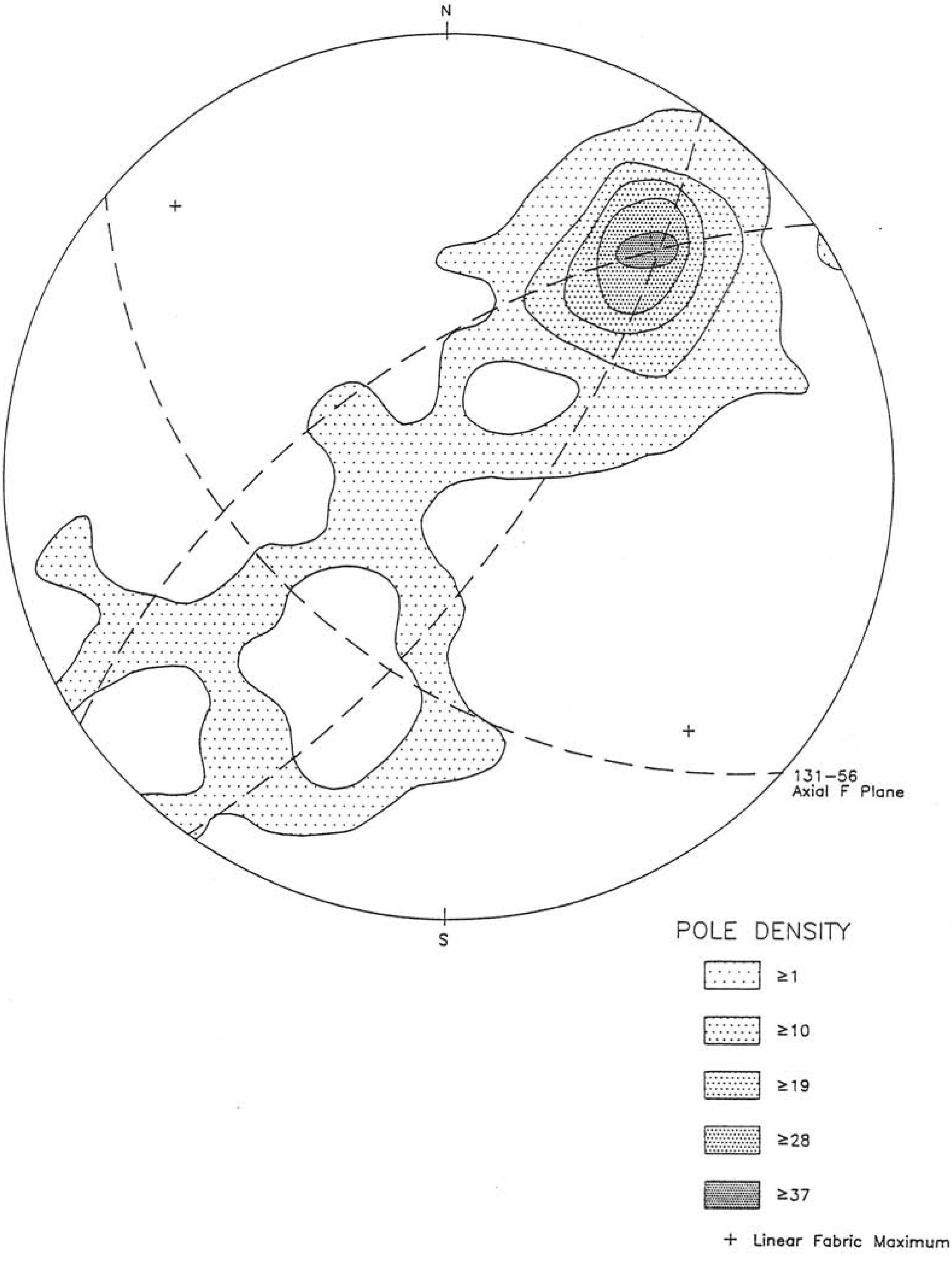


FIGURE 10

SOUTH SIDE
Structural Compilation



Furthermore, the stratigraphy encompassed by the thrust fault boundary appears to be at a significantly different attitude than that presented on the south side. Structural measurements of schistosity indicate a maximum attitude of approximately 160°-25°SW (Figure 11). A second concentration of poles occurs at a similar location as that observed in the south side. This data relates to schistosity in an attitude similar to the pervasive S_2 orientation. Linear data concentrations occur in the northwest and southeast (Figure 12), with a maximum in the northwest quadrant. This information, coupled with field observation, is interpreted to suggest a generally flat laying, more openly folded sequence of rocks plunging gently to the northwest and southeast, with the majority of folds plunging northwest.

Consequently, the stratigraphy encompassed by the thrust fault is close to its original horizontal attitude; which would mean if you were to walk from the waters edge of the Columbia Reach uphill you would be walking up stratigraphically (see Figure 6b). Beyond the thrust fault toward the north east and below the thrust fault the stratigraphic attitude is similar to the south side.

III) Mineralization and Geochemistry

Due to the local lithologies, sulphide mineralogy and stratiform nature of the mineralization, the origin of this deposit is best interpreted to be a synsedimentary exhalative ('sedex') type.

The mineralized horizon is a crudely stratiform sulphide zone lying conformably in Tsar Creek metasediments. A thorough investigation of the Tsar Creek formation was conducted, including some work on the Cominco claims. Sample locations for the various geochemical surveys conducted accross the property are displayed on Figures 13a, 13b and 14.

Four main areas of mineralization, including the Cominco Canyon showing, were observed; the Canyon showing, the North Road showing, the Tsar Creek pyrrhotite and the 1991 grid trenches. Correlation with intersections from previous drilling will be examined.

Canyon Showing

Both walls of the Cummins River canyon sulphide section were examined and sampled to determine the extent and nature of the pyrite-sphalerite-galena mineralization and geochemical relationships of hanging and foot wall lithologies. Three main mineralized zones are recognized on the basis of the sulphide and gangue relationships; siliceous sulphide, massive sulphide and manganiferous dolomite.

FIGURE 11

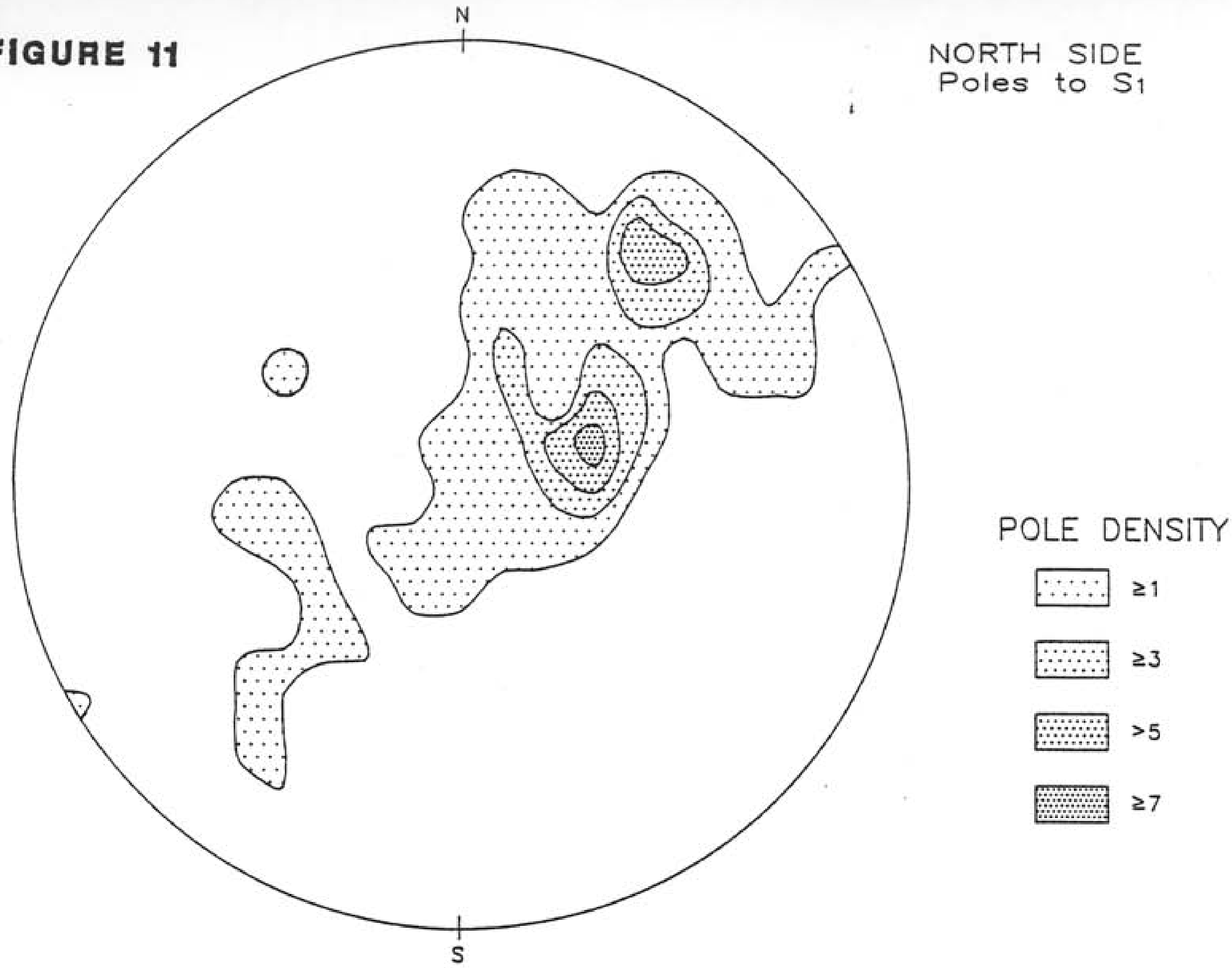
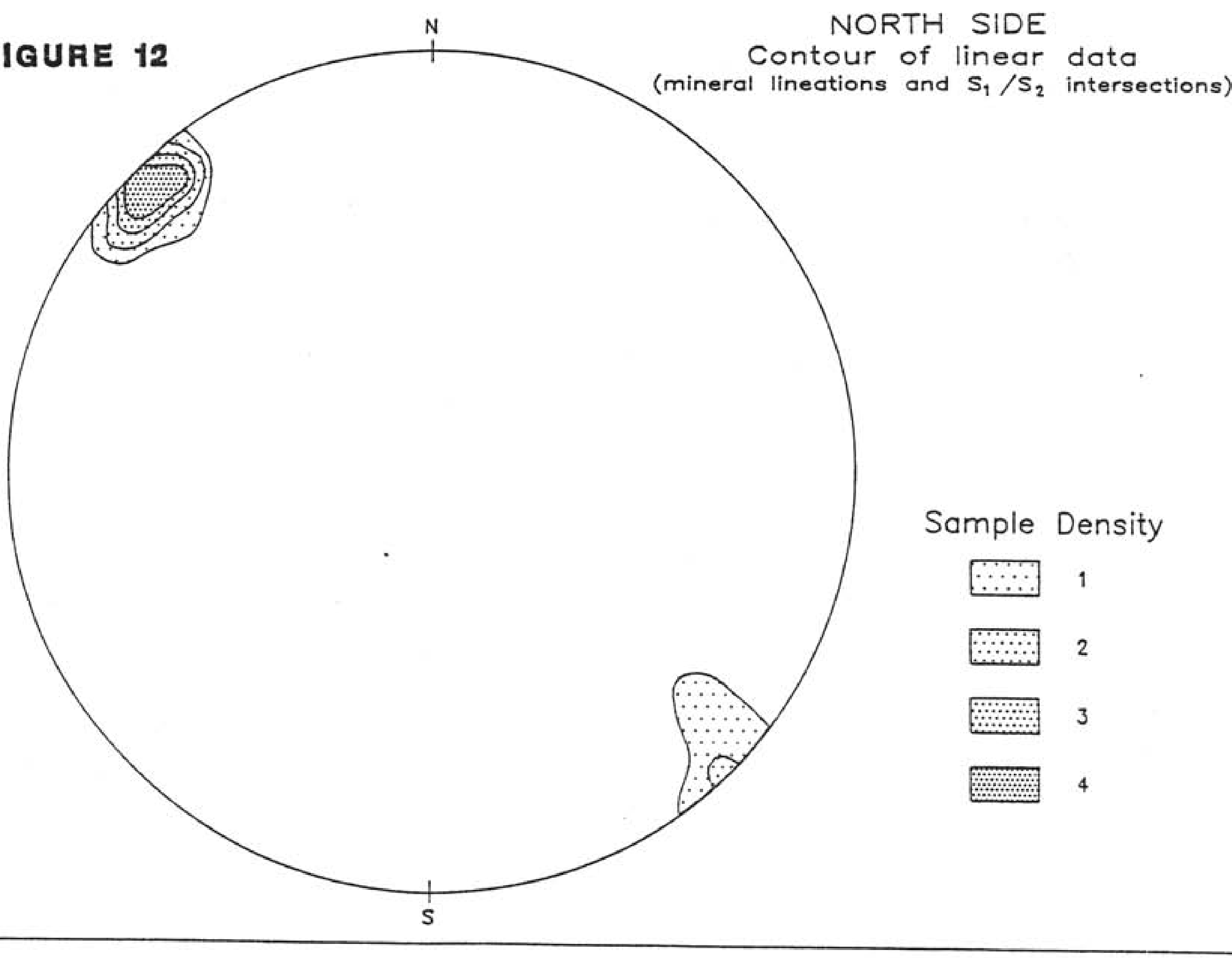


FIGURE 12



Gangue minerals dominate the siliceous unit. Sulphide minerals comprise less than 40% of the unit. The sulphide assemblage is mainly pyrite with minor traces of galena and sphalerite. Petrographic analysis (Reddy 1986) indicate pyrrhotite both interstitial and in cracks of gangue, and chalcopyrite and tetrahedrite occurring as grains within galena.

The massive sulphide layer consists of 40-80% pyrite with sphalerite and galena occurring mostly interstitial to pyrite. Gangue minerals are dominantly quartz and dolomite. Chip sampling through the sulphide zone yielded assay values of 0.02% Zn, 0.76% Pb and 24.4 g/t Ag.

The manganiferous dolomite is grey-white and is characterized by a red-brown to chocolate brown weathered surface. Quartz composes approximately 10% of the unit. Sulphides occur mainly as layering parallel lenses and laminations up to 1cm thick.

Representative lithologies were obtained from the hanging wall, across the sulphide zone, to the foot wall on the north face of the canyon showing. Samples were analyzed to observe the bulk composition of the rocks across the zone. Figures 15a & 15b display the major oxides from the samples. A brief description of the units encountered with their geochemical features are described:

Hanging wall

Garnet schist- Weakly to moderately foliated, light to dark grey garnet schist. Garnets are generally subhedral to euhedral, 0.5 to 4cm in diameter and red to red-brown in colour. Whole rock analyses reveals that the unit is CaO rich and MgO rich relative to the foot wall garnet schist.

Quartz sericite schist- Fine grained, light grey to waxy yellow, well foliated, highly siliceous schist with sericite defining foliation. Minor pyrite and graphite are observed on foliation surfaces.

Siliceous pyrite unit- Fine grained to aphanitic, light grey, siliceous pyrite horizon is also referred to as the siliceous sulphide unit. This unit may have originally been a chert. The high values of Fe_2O_3 recorded for this unit correspond to the increased concentration of iron sulphides.

Foot wall

Garnet schist- The foot wall garnet schist is fine grained, dark grey to black, garnet schist with a greater argillaceous component than the hanging wall garnet schist. Garnet size is generally 0.3-1.0cm. The unit is Al_2O_3 and K_2O rich relative to the hanging wall garnet schist. Reddy (1980) has shown that the garnets of the footwall schist are primarily almandine while those of the hanging wall are spessartine.

CANYON SHOWING WHOLE ROCK ANALYSIS

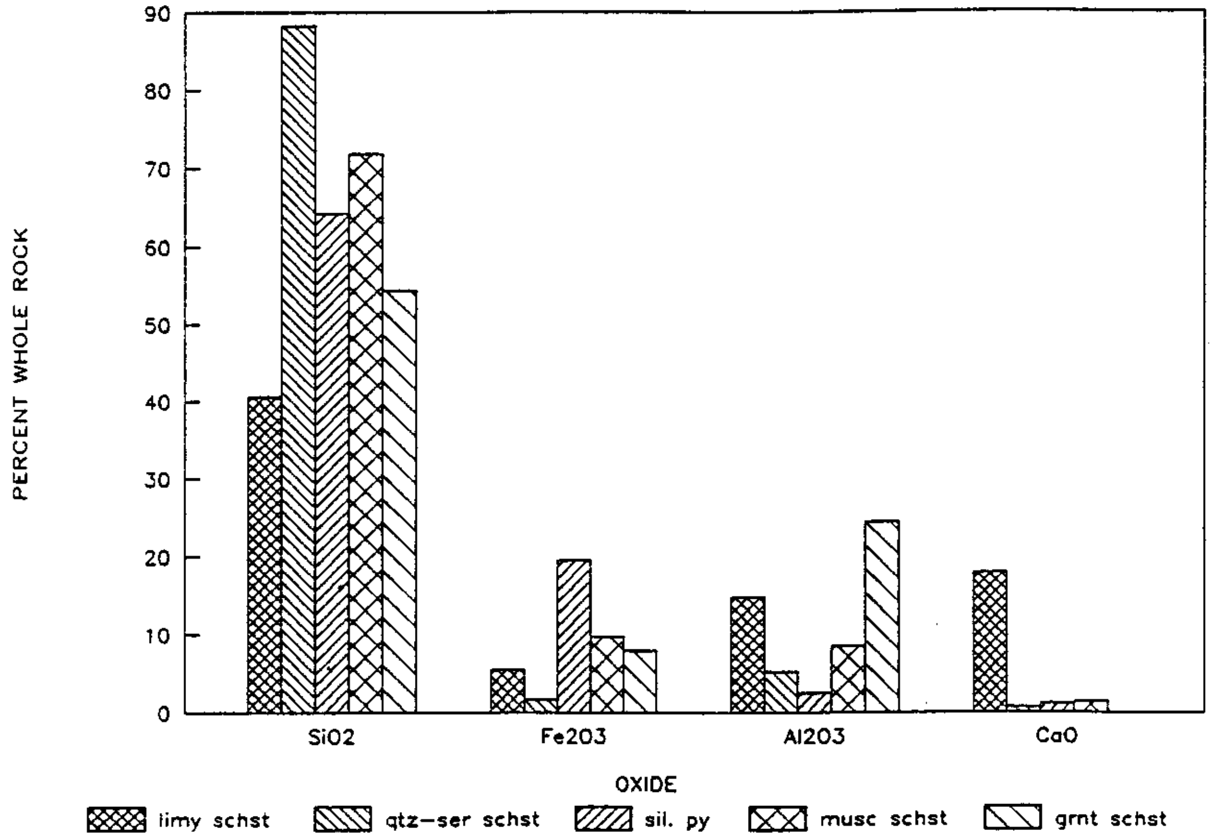


FIGURE 15a

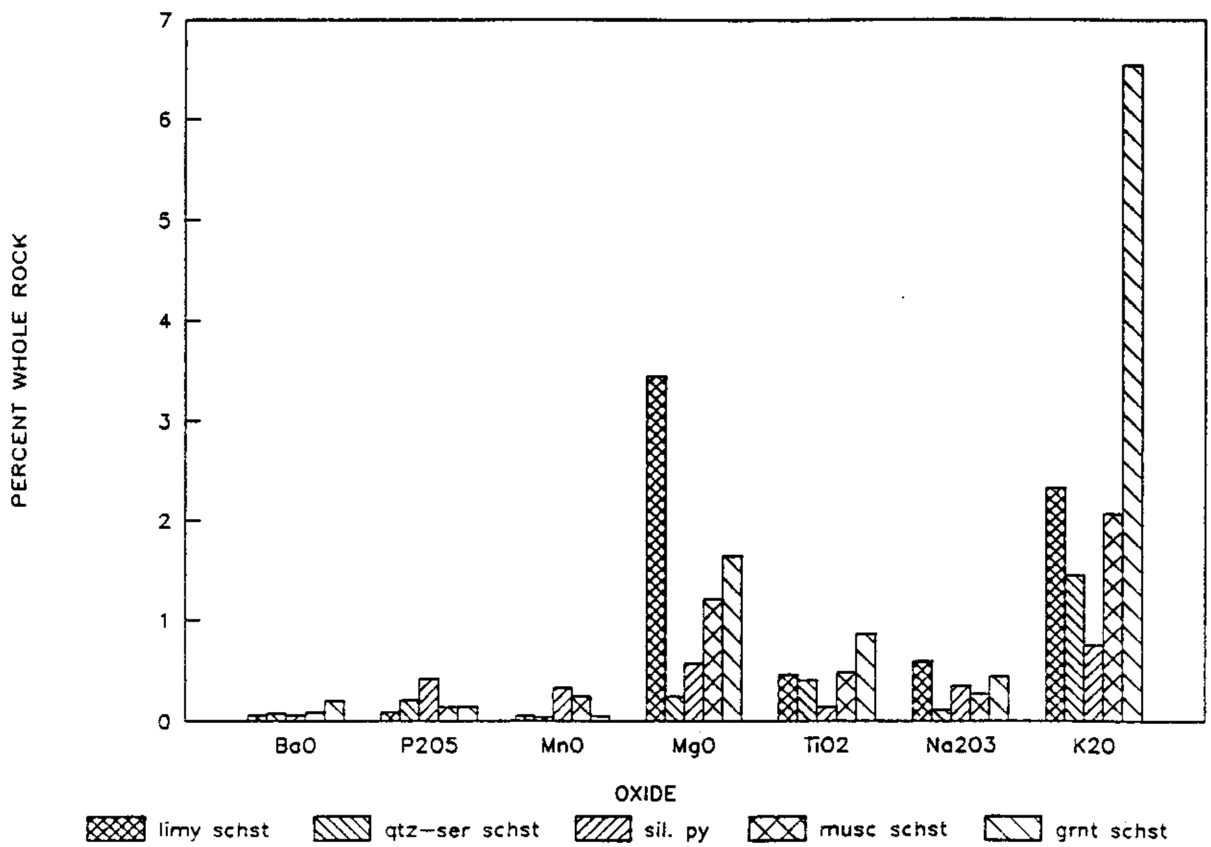


FIGURE 15b

Tsar Creek showing

Approximately 700m up Tsar Creek, float boulders containing stockwork pyrrhotite were sampled. The rock is a massive, silicified fine grain metasediment containing stringer style pyrrhotite with no observable chalcopyrite. The actual source of the boulders, assumed to exist in the cliff above, was not located. An ICP analysis of the unit revealed 5% Fe, 25ppm Zn, 128ppm Pb, 1.2ppm Ag, 32ppm Cu and 2458ppm Mn.

The cliff along the southeast side of the creek exposed Kinbasket limestones, Tsar Creek argillites, fine grained turbidic wackes and quartz-sericite schists. Gog group quartzites were seen at the upper extent of the area of examination. This stratigraphy is comparable to much of the property, allowing for an assumed continuous section of strata from the Cummins river to Tsar Creek, a distance of approximately 12 kilometres.

North Road showing

Four bulldozed trenches (1966 - Cominco) are exposed along a section of road crossing the M.G.M., M.G.M.2 and M.G.M. 3 claims north of the Cummins River. A sulphide bearing chocolate brown weathering manganiferous dolomite layer is exposed in all of the trenches (Figure 16). Due to the strike and gentle dip of units within the area, the dolomite unit presents a broad outcrop exposure. The observed sequence of associated lithologies, (eg. garnet schists and quartz sericite schists) is similar to that observed within the Canyon Showing.

Two styles of mineralization occur within the dolomite:

1) 5-25cm wide bedding parallel bands of massive pyrite with minor galena and sphalerite, yielding 0.13% Zn, 0.12% Pb and 2.4 g/t Ag and 0.55% Zn, 0.1% Pb and 1.2 g/t Ag from Trench 3.

2) Galena and sphalerite occur mainly as lenses and laminations associated with minor narrow quartz veinlets, yielding 6056ppm Zn, 1978ppm Pb and 7ppm Ag from Trench 1 and 1495ppm Zn, 190ppm Pb and 4.2ppm Ag from Trench 4.

Attempts have been made at drilling the North Road Showing, however, insufficient exposure, structural information and difficult drilling conditions led to poor results.

Drill Core

A total of metres of core from three 1991 Cominco holes (C-91-1, 2 & 3) was examined (see Figure for hole locations). Observation of mineralized zones within the core reveal apparent widths of 4-11 metres of weakly silicified dolomite with sections of massive to thinly laminated pyrite>sphalerite>galena. The "hanging wall-foot wall" sequence; from the carbonaceous garnet schist, quartz sericite schist and the sulphide horizon, to the argillaceous garnet schist was observed in all three Cominco drill holes.

A total of 211.85 metres of core was examined from two holes drilled north of the Cummins River by Esso Minerals in 1985 (see Figure for hole locations).

DDH-1 encountered broken, rubbly, iron carbonate altered micaceous quartzite and quartzofeldspathic schists. DDH-1 was terminated after 38.11 metres.

DDH-2 intersected a sequence of banded quartz-schists with minor bands of dolomite was encountered down to ≈57.5m, below which a garnet-schist with increasing coarseness and staurolite content predominated. It is thought that the units encountered within DDH-2 are analogous to the sequence of quartz-sericite schists, dolomite and lower Tsar Creek Formation garnet-staurolite schists observed south of the Cummins River. DDH-2 was terminated within the garnet-staurolite schist at 173.7 metres.

The presence of trace amounts of galena within thin dolomitic horizons was identified in both holes.

Grid trenches

Exposed on Line 20+00S is a sequence of hanging and foot wall lithologies which appears identical to surface exposures observed on Cominco's Bend property.

Between stations 3+90E and 4+80E, a 15 metre section of thinly bedded/laminated, cream coloured quartz-sericite schist was unearthed (Figure 17). More massive sections contain sparse foliation parallel blebs of galena and sphalerite. Trace fine grain pyrite has also been observed. ICP analysis of the unit reported 119ppm Zn, 322ppm Pb and 0.6ppm Ag.

Between stations 4+35E and 4+37E a chocolate brown weathering dolomitic (?) schist was exposed. Due to overburden depth, the full extent of dolomite horizon is not known.

From 4+95E to 5+10E a garnet-mica schist resembling the foot wall garnet schist was observed.

Whole rock analyses of the units uncovered on Line 20+00S are displayed along with analyses of the dolomite zone and selected hanging wall and foot wall lithologies from the Canyon Showing, the North Road trenches and the Cominco drill core (Table 4). The chemical similarities of the lithologies substantiate the continuity and extent of the sulphide associated units throughout the areas investigated.

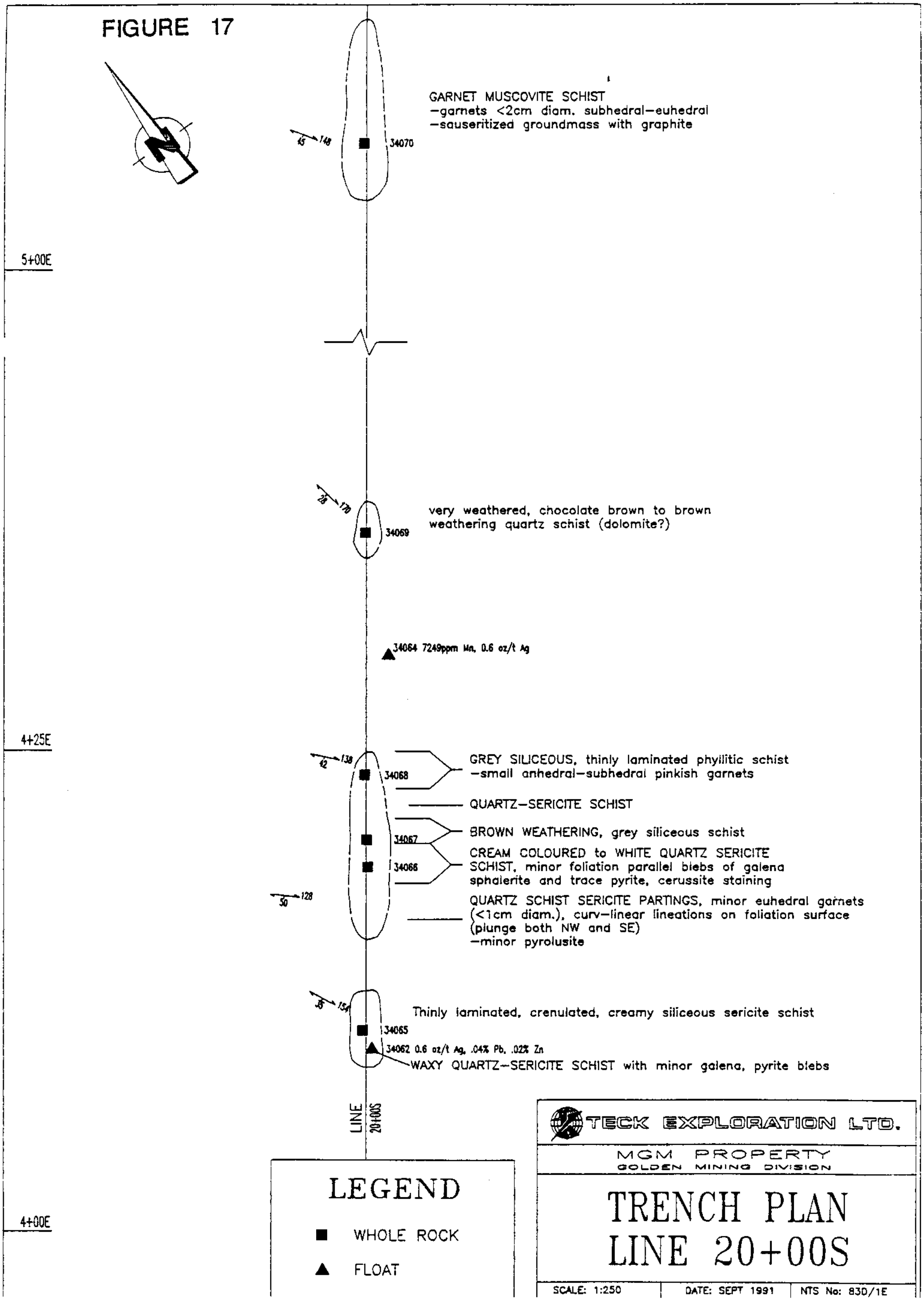


FIGURE 17
GARNET MUSCOVITE SCHIST
—garnets <2cm diam. subhedral—euhedral
—sauseritized groundmass with graphite
45
148
34070
5+00E
28
170
very weathered, chocolate brown to brown weathering quartz schist (dolomite?)
34069
34064 7249ppm Mn, 0.6 oz/t Ag
4+25E
42
138
GREY SILICEOUS, thinly laminated phyllitic schist
—small anhedral—subhedral pinkish garnets
34068
QUARTZ—SERICITE SCHIST
BROWN WEATHERING, grey siliceous schist
34067
CREAM COLOURED to WHITE QUARTZ SERICITE SCHIST, minor foliation parallel blebs of galena sphalerite and trace pyrite, cerussite staining
34066
50
128
QUARTZ SCHIST SERICITE PARTINGS, minor euhedral garnets (<1cm diam.), curv—linear lineations on foliation surface (plunge both NW and SE)
—minor pyrolusite
35
154
Thinly laminated, crenulated, creamy siliceous sericite schist
34065
34062 0.6 oz/t Ag, .04% Pb, .02% Zn
WAXY QUARTZ—SERICITE SCHIST with minor galena, pyrite blebs
LINE 20+00S
4+00E
LEGEND
WHOLE ROCK
FLOAT
TECK EXPLORATION LTD.
MGM PROPERTY
GOLDEN MINING DIVISION
TRENCH PLAN
LINE 20+00S
SCALE: 1:250
DATE: SEPT 1991
NTS No: 83D/1E

TABLE 4 WHOLE ROCK ANALYSIS OF HANGING AND FOOTWALL FOOTWALL LITHOLOGIES

	LOCATION	SAMPLE NO.	ROCK TYPE	SIO2	Fe2O3	Al2O3	BaO	P2O5	MnO	MgO	CaO	TiO2	Na2O3	K2O
Hanging wall	DDH-C-91-2 @223m	34089	Lg. garnet schst	43.44	6.57	20.92	0.16	0.13	0.13	2.51	11.8	0.71	0.79	4.09
Hanging wall	Cummins R. north side	34081	Limy garnet schst	40.54	5.55	14.89	0.06	0.09	0.05	3.45	17.9	0.47	0.6	2.33
Hanging wall	Line 20+00S 4+10E	34065	Qtz-ser schst	83.33	3.27	7.05	0.06	0.4	0.18	0.36	0.92	0.71	0.12	2.25
Hanging wall	DDH-C-91-2 @245m	34071	Qtz-ser schst	81.21	1.71	8.01	0.1	0.05	0.18	0.98	1.82	0.63	0.18	2.27
Hanging wall	Cummins R. south side	34073	Qtz-ser schist	82.64	0.87	9.99	0.18	0.16	0.08	0.34	0.61	0.33	0.21	2.76
Hanging wall	Cummins R. north side	34077	Qtz-ser schist	88.21	1.67	5.3	0.08	0.21	0.04	0.25	0.72	0.41	0.12	1.44
Hanging wall	North road showing	34093	Qtz-ser schist	83.49	2.08	7.71	0.09	0.19	0.26	0.55	0.63	0.61	0.23	2.23
Ore Zone	DDH-C-91-2 @260m	34090	Light grey dolomite	11.31	9.15	1.65	0.03	0.28	2.08	13.02	26.76	0.09	0.12	0.64
Ore Zone	Cummins R. south side	34075	Pyritic dolomite	17.2	9.08	1.76	0.04	0.07	2.2	11.48	23.33	0.09	0.11	0.5
Ore Zone	North Rd. trench 1	34085	Choc br. dolomite	11.94	12.24	1.3	0.02	0.2	5.32	12.24	29.26	0.08	0.13	0.15
Ore Zone	North Rd. trench 4	34092	Choc br. dolomite	8.66	18.25	1.41	0.02	0.12	5.14	1.5	33.61	0.06	0.24	0.81
Footwall	Line 20+00S 5+6.5E	34070	Garnet schist	56.39	8.95	22.33	0.09	0.14	0.12	1.86	1.02	0.86	0.98	4.17
Footwall	DDH-C-91-2 @264m	34091	Garnet schist	55.91	9.19	20.58	0.1	0.14	0.12	2.1	0.8	0.79	0.45	5.86
Footwall	Cummins R. south side	34076	Garnet schist	53.6	10.47	22.18	0.16	0.07	0.06	2.25	0.35	0.82	0.45	6.42
Footwall	Cummins R. north side	34080	Garnet schist	54.43	7.98	24.43	0.2	0.14	0.05	1.64	0.04	0.87	0.45	6.54

8. GEOPHYSICS

The HLEM survey succeeded in locating the surface trace of a conductive unit which, according to geological interpretation, could correlate to either the sulphide zone or to a geologic contact within close proximity to the zone.

The anomaly meanders sinuously across the grid from line 12+00 S, 5+75E to line 32+00S, 0+25W (Figure 18). The depth to the top of the conductive zone is shallow, likely covered only by overburden to a depth of less than 10 meters. Dip is close to vertical, consistent with a 60-70 degree dip to the southwest.

The anomaly generally appears thin and weak, however, two areas of specific interest are:

a) Line 22+00S, 4+75E to 5+00E; the anomaly is quite strong, with in-phase values of about 30%. It is also quite clean, with little surface noise to degrade width interpretation of 25 metres.

b) Line 30+00S, 1+25E to 0+25W; there is an anomalous signature with two possible interpretations. One is of two thin, vertical conductors located at 0+25W and 1+12E. Another is to view this 150 meter wide response as a flat lying conductor (due to coil separation less that conductor width).

Lines 4+00S and 6+00S did not show an anomalous response. Possible explanations for this lack of anomaly may be due to the lack of access near the top of these lines, or a local lack of mineralization in the dolomite zone.

Lines 8+00S and 10+00S were shortened due to the presence of a steep gully, possibly representing a cross fault in this area. These lines were not geophysically tested as they fell short of the projected target area.

A test line was run over a known showing to correlate geophysical response with geology. Two anomalous zones were located. The first correlates with a schistose zone while the second correlates with the surface expression of the known showing. It was not possible to cover the east positive shoulder of the showing anomaly because of the extremely steep terrain to the east, dropping into the Cummins River.

Unfortunately there is a gap in the data set, from the original test line to line 12+00S on the grid. It is postulated that the zone is located on the east side of the ridge across this distance. The slope in this area is extremely steep and coverage was not attempted.

For instrumentation and field technique refer to Appendix F.

9. SOIL AND SILT GEOCHEMISTRY

Mattock soil sampling was carried out over the grid area. Sample interval was generally 50m or 25m where warranted. A total of 234 samples were collected and examined by 30 element (Ag, Al, As, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sn, Sr, Ti, U, V, W, Y, Zn) ICP analysis. Samples were collected from the 'B' horizon which generally occurred at a depth of 15 to 20cm. All analyses were conducted by Eco-Tech Laboratories in Kamloops, B.C. For a complete list of results see Appendix C for certificate of analyses. Analytical procedures are included in Appendix D.

Sample locations are shown on Figure 15 and geochemical results for zinc, lead and manganese are displayed on Figures 19, 20 and 21 respectively.

High concentrations of Pb, Zn and Mn are essentially coincident, however Mn values are typically higher and more widely dispersed.

Two major trends are noted: a) High concentrations of Zn and Pb with significant Mn occur from line 4+00S and 6+00S near station 5+00E; b) Significant concentrations of the three elements trend from 4+50E on line 20+00S southeast toward 0+50W on line 32+00S.

No apparent trends are observed for base metals or trace elements within the soil geochemistry from line 8+00S to 18+00S; an increased depth to the sulphide bearing dolomite horizon may be the cause.

Silt samples were collected from all accessible drainages across the property (Figure 13a & 13b). Geochemical results from the creek silt samples do not exhibit any high level enrichment of Zn or Pb. However, elevated Mn values occur near the upper Gog - lower Tsar Creek contact.

Factors which may have effected the silt sample results include coarse particle size, depth to the mineralized horizon and sample technique (moss mat sampling may have been more effective).

For a complete list of soil and silt geochemical results see Appendix C.

10. DISCUSSIONS

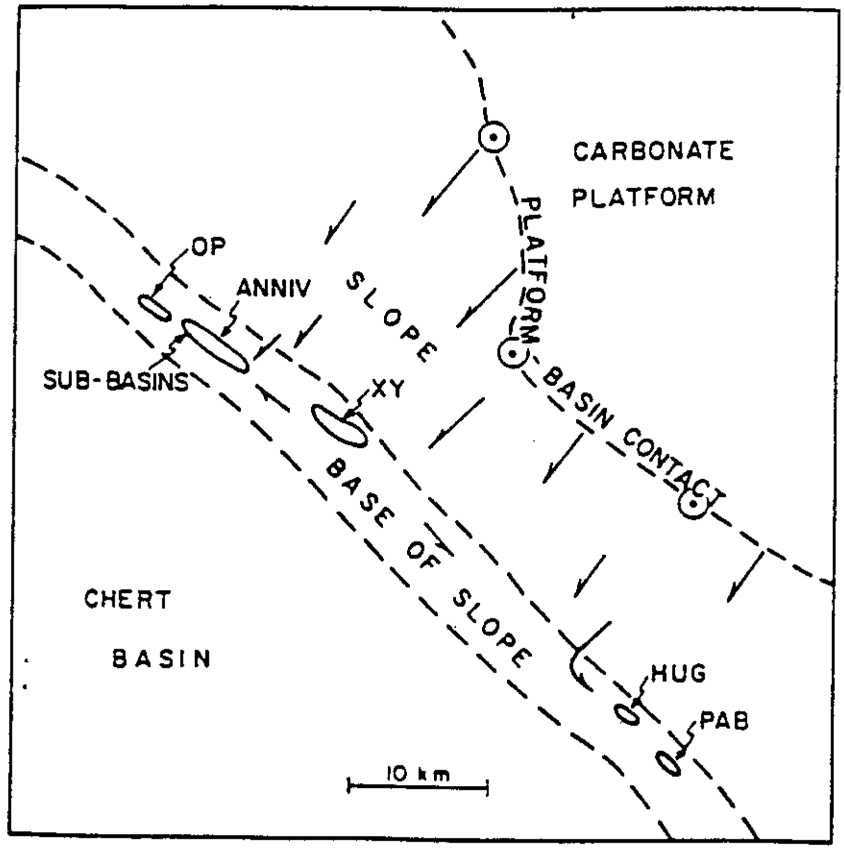
The sulphide horizon and host lithologies are indicative of a platform-margin sedimentary exhalative deposit type. Such deposits occur in basins seaward of major platforms or cratonic shelves (Morganti 1981). A relatively simple sulphide mineralogy, low barite content and no copper zones are among the characteristics of the platform-margin 'sedex' deposits. Occurrences of this type (ie. Anvil, Howard Pass Deposit) within the Selwyn Basin vary in age from Cambrian to Mississippian, with Ba poor, Pb-Zn rich mineralization occurring within Cambrian to Silurian rocks (Maynard 1991).

Lithologies and lithogeochemistry indicate a depositional environment within a foreland basin or continental (half-graben) margin. The Tsar Creek Formation appears to be a product of an episodic (orogenic?) influx of pelitic material into a quiescent deep water calcareous-chert basin (Gog Group lithologies). Cessation of pelitic deposition gave way to a carbonate platform environment of thinly bedded turbidic limestones and interdepositional muds of the Kinbasket Formation.

Tsar Creek sediments associated with the sulphide horizon reflect a persistent low-energy environment or 'autochthonous' lithologies (after Large 1980). Autochthonous lithologies are usually comprised of fine grained clastics (shales and siltstones) and/or limestones and dolomites. The hanging wall siliceous pyrite and Quartz-sericite schist horizons are interpreted by the authors to have been originally chert horizons. Chert has been shown to be spatially associated with several 'sedex' deposits (Large 1980) and is considered a exhalative silica phase related to the ore forming hydrothermal activity. Graphite, observed on foliation planes within the MGM quartz-sericite schists may have derived from original organic carbon. The presence of carbon has been observed within several 'sedex' deposits and is interpreted to be indicative of a chemically reducing environment in which stratiform sulphides remain stable (Large 1983).

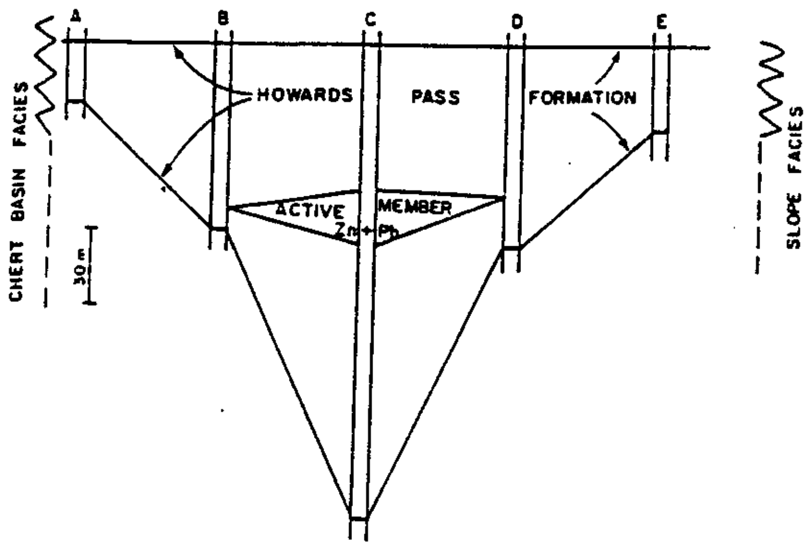
Analogies can be made between the sequence of lithologies observed bounding the MGM sulphide horizon and those of the Selwyn Basin deposits. In the Anvil district, ore is located at the transition from noncalcareous phyllite to overlying calcareous phyllite. Whole rock analysis of MGM rock types indicate hanging wall garnet schists possess a much greater carbonate content than foot wall garnet schists (see Figure 15a & Table 4). The local sequence of quartz-sericite schists above and argillaceous garnet schists below the MGM sulphide horizon correspond well with the chert horizons above and the pyritic shales below the Pb-Zn rich, Ba poor massive sulphides of the Howards Pass deposit.

Typically, the characteristic geologic features of "sedex" deposits include extensive length and breadth dimensions with relatively narrow widths. The economic sections of the Howard Pass deposits, for example, are limited to sub-basins within the platform-slope basin (Figures 22a & 22b), where metal bearing precipitates accumulated.



General model for the formation of the platform-marginal deposits showing the geometry of the platform-slope-base of slope and chert basin facies. Arrows show surface movement of ore fluids which migrate up to the sediment-water interface, down the basin slope and are trapped in the sub-basins at the base of the slope.

FIGURE 22a



Composite stratigraphic sections of the Howards Pass Formation across the base of slope facies. These sections show a general thickening of the Formation and the presence of the Zn-Pb containing active member in the sub-basins. Distance between sections A and E is approximately 8 km.

FIGURE 22b

(after Morganti 1981)

Multiple phases of deformation within the MGM area have been essentially coaxial and have not interrupted the stratigraphic sequence. Chemical similarities observed from whole rock analyses of the dolomite zone and selected hanging wall and foot wall lithologies over several kilometres attest to the continuity of the stratigraphic succession. However, tight to isoclinal folding within the Chancellor Group has produced substantial structural thickening of the Kinbasket and Tsar Creek Formations (Meilliez 1972).

To date, thickness and grade of mineralization have been subeconomic. Locating tectonically thickened sections and/or sub-basins within the Tsar Creek Formation could produce economic widths and grades of sulphide mineralization.

The recognition of geochemical halos within host rocks of the sulphide horizon is of exploration significance. Manganese is enriched in carbonates that are at the same stratigraphic horizon as the stratiform sulphides at the Meggan (Germany), McArthur River (Australia) and Tynagh (Ireland) deposits (Large 1983). Similarily, the MGM dolomite horizon displays high Mn values (2.1%-5.3%) compared to Mn concentrations (0.05%-0.18%) within adjacent hanging and foot wall lithologies. Typically, over the dolomite horizon, the abundance of Mn within soils is much greater than that of Zn or Pb. It is this characteristic feature that would prove manganese a key 'tracer' element for defining the MGM sulphide-bearing dolomite horizon throughout the property.

11. CONCLUSIONS

Regionally, the property lies on the west limb of a major anticlinorium and is bounded to the west by the Purcell Thrust Fault. Lithologies of the Kinbasket and Tsar Creek Formations generally strike northwest-southeast and dip 50°-60° southwest in the area between Cummins River and Tsar Creek. A thrust fault bounded sequence of similar lithologies occurs mainly north of the Cummins River, with a portion occurring south of the Cummins terminating at the Columbia Reach.

The dominant structures within the Kinbasket and Tsar Creek Formations are the second phase (F_2) tight to isoclinal asymmetric step-like folds with an associated axial planar cleavage (S_2) sub-parallel to the average long limb orientation.

The Tsar Creek Formation hosts a crudely stratabound sulphide horizon of variable width bounded by distinct hanging and foot wall lithologies. Sulphide mineralogy is predominantly pyrite, sphalerite and galena. Sediments hosting the sulphide layer were cherts, carbonates and argillites deposited within an unstable cratonic margin basin of early Paleozoic North America.

Whole rock geochemical analyses of hanging wall and foot wall lithologies have displayed the integrity and extent of the sulphide associated horizons across the property.

A distinct physical correlation exists between the enriched soil locations and the EM anomalies from line 20+00S to line 32+00S; the geophysical anomalies occur upslope of the higher concentrations of Zn, Pb and Mn.

Combined data from geophysical, soil geochemistry and whole rock surveys indicate that the sulphide-bearing dolomite horizon is continuous from the Cummins River south to at least Line 20+00S, a strike length of 3 kilometres.

12. REFERENCES

Dodson, E.D., 1971. Report on a Geochemical Survey on the Bend No.1 Mineral Claim. Golden Mining Division. MacDonald Consultants Ltd. Assessment Report 2991.

Dodson, E.D., 1971. Report on a Geochemical Survey on the Bend 17-26 Mineral Claims. Golden Mining Division. MacDonald Consultants Ltd. Assessment Report 2992.

Eckstrand, O.R., 1984. Canadian Mineral Deposit Types: a Geological Synopsis: Geological Survey of Canada, Economic Geology Report 36., p.35.

Fyles, J.T., 1960. Big Bend of Columbia River, Geological Reconnaissance of the Columbia between Bluewater Creek and Mica Creek: British Columbia Department of Mines Annual Report (1959), p.90-105.

Jenks, J., 1985. Drilling report - MGM Property. Golden Mining Division. Esso Minerals Canada. Assessment Report 15251.

Large, D.E., 1980. Geological Parameters Associated with Sediment-Hosted, Submarine Exhalative Pb-Zn Deposits: An Empirical Model for Mineral Exploration, Geol. Jb. D40, p. 59-129.

Large, D.E., 1983. Sediment-Hosted Massive Sulphide Lead-Zinc Deposits: An Empirical Model in Short Course in Sediment hosted stratiform lead-zinc deposits, Mineralogical Association of Canada Short Course Handbook, v.8, p.1-29.

Leask, J.M., 1981. Geology of the MGM Property, Big Bend District, East Central British Columbia. Assessment Report No. 9994.

Lickorish, W.H. and Simony, P.S. 1991. Structure and stratigraphy of the northern Porcupine Creek Anticlinorium, western Main Ranges between the Sullivan and Wood rivers, British Columbia. Current Research, Part A, Geological Survey of Canada, Paper 91-1A, p.163-169.

Marr, J.M., Oliver, J.L. and Melnyk, W.D., 1986. MGM Project 1985. Esso Minerals of Canada Ltd. (in house report)

Mawer, A.B., 1987. Geological - Access road and Drill site construction report. Bend Group, Golden Mining District, Cummins River Area. Cominco Ltd. Assessment Report No. 16544.

Maynard, J.B., 1991. Shale-Hosted Deposits of Pb, Zn and Ba: Syngenetic Deposition from Exhaled Brines in Deep Marine Basins in Sedimentary and Diagenetic Mineral Deposits: A Basin Analysis Approach to Exploration, Reviews in Economic Geology, v.5, p. 177-185.

Meilliez, F. 1972. Structure of the southern Solitude Range, British Columbia. Unpublished M.Sc. thesis, University of Calgary, Alberta, 112p.

Morganti, J.M., 1981. Sedimentary-type Stratiform Ore Deposits: Some models and a new classification in Ore Deposits Models, Geoscience Canada, v.8, p.67-77.

Reddy, D.G. and Godwin, C.I. 1986. Geology of the Bend Zinc-Lead-Silver Massive Sulphide Prospect Southeastern British Columbia, British Columbia Ministry of Energy, Mines and Resources, Geological Fieldwork, Paper 1987-1, p.47-52.

Simony, P.S., Ghent, E.D., Craw, D., Mitchell, W. and Robbins, D.B., 1980. Structural and metamorphic evolution of the northeast flank of Shuswap complex, southern Canoe River area, British Columbia: Geological Survey of America, Memoir 153, p.445-461.

Spence, C.D., 1983. Geophysics and Geochemistry. Riocanex. Assessment Report 12155.

Walcott, P.E. and Associates, 1983. A Geophysical Report on Electromagnetic and Magnetic Surveys. McNaughton Lake, British Columbia. Riocanex Inc. Assessment Report 11565.

Wheeler, J.O., 1964. Big Bend Map-Area, British Columbia (82M E1/2): Geological Survey of Canada, Paper 64-32, 32p.

APPENDIX A

Statement of Qualifications

I, Greg Thomson, do hereby certify that:

1. I am currently employed as a geologist by Teck Explorations Ltd. with offices at #960-175 Second Ave., Kamloops, B.C.

2. I graduated from the University of British Columbia in 1970 with a major in Geology.

3. I have worked continuously as a geologist in British Columbia.

4. The work described herein was done under my direct supervision.

5. I hold no personal interest, direct or indirect in the MGM Property which is the subject of this report.

Greg Thomson
Geologist
November, 1991

I, Craig Alford, do hereby certify that:

1. I am a geologist and have practised my profession continuously since graduation.

2. I graduated in 1988 from Lakehead University with a M.Sc. in Geology.

3. I was actively involved in the mapping of the MGM Property and co-authored the report contained herein.

4. All data contained within this report and conclusions drawn from it are true and accurate to the best of my knowledge.

5. I hold no personal interest, direct or indirect in the MGM Property which is the subject of this report.

Craig Alford
Geologist
November, 1991

APPENDIX B

Cost Statement

MGM PROJECT
EXPLORATION COSTS (June 1 - Sept 30/91)

A) SALARIES

G. Thomson (Project Geologist) 82 days @ $271.92/day	24,200.80	
C. Alford (Geologist) 90 days @ $232.00/day	20,880.00	
D. Nikirk (Field Technician) 42 days @ $181.25/day	7,612.50	
H. Stewart (Geological Assistant) 41 days @ $181.25/day	7,431.25	
B. Miller (Field Assistant) 53 days @ $166.75/day	8,837.75	
	Subtotal	**$68,962.30**
Supervision	1,073.23	
Administration	119.25	
Miscellaneous	3,727.49	
	Total Salaries	**$73,882.27**

B) LIVING EXPENSES

-Camp rental (@ $3000/month), fuel, groceries and misc. motel and restaurant costs	$21,864.91

C) TRANSPORTATION

-Rental of two 4x4 trucks, gasoline and Mica Marine Barge	$13,839.37

D) CHARTERED AIRCRAFT

-Amiskwi Air & Canadian Helicopters	$11,199.73

E) **CONTRACTORS**

1. Geophysics - 11Km. HLEM Survey		
Maple Services Ltd.	$12,444.70	
2. Linecutting - 10.5Km.		
Minconsult Mineral Exploration Services	21,892.11	
(Assessment fees allocated to MGM 8 claims)	-9,760.00	
	12,132.11	
3. Trenching		
Minconsult Mineral Exploration Services	5,152.00	
Contractor total		**$29,728.81**

F) **GEOCHEMICAL ASSAYS**

1. Echo Tech Labs		
i) 232 Soils (31 el. ICP) x $6.19 ea.	$1436.08	
ii) 49 Silt (30 el. ICP) x $6.19 ea.	303.31	
iii) 24 Rock (Whole rock analysis) x $25.38 ea	609.17	
iv) 11 Rock (30 el. ICP) x $8.80 ea.	96.80	
v) 4 Rock (Pb, Zn & Ag Assay) x $20.47	81.88	
Geochemical total		**$2,527.24**

G)	**FIELD EXPLORATION COSTS**	$1,103.17
H)	**FREIGHT & SHIPPING**	$685.07
I)	**MAPS & PRINTS**	$627.06
J)	**DRAFTING**	$2,124.67
K)	**TELEPHONE**	$310.24
L)	**EQUIPMENT RENTAL**	
	-Camp Generator & Radio Telephone	$3,665.17
	Total	**$161,557.71**

APPENDIX C

Certificate of Analysis

ROCK

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-457

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

AUGUST 1, 1991

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
2 ROCK SAMPLES RECEIVED JULY 16, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	33055	.2	.10	55	6	10	< 5	.22	<1	2	123	10	1.02	.05	20	.03	924	8	< .01	5	900	10	< 5	< 20	7	< .01	< 10	< 1	110	6	321
2 -	33056	7.0	.44	65	2	80	< 5	> 15	18	6	12	9	9.04	.17	10	1.03	> 10000	< 1	< .01	2	330	1970	15	< 20	< 1	.02	30	< 1	< 10	<1	6056

NOTE: < = LESS THAN
> = GREATER THAN

ECO-TECH LABORATORIES LTD.
CLINTON AYERS
LABORATORY MANAGER

SC91/TECK1

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

JULY 30, 1991

CERTIFICATE OF ANALYSIS ETK 91-458

TECK EXPLORATION LTD.
960 - 175 2ND AVENUE
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

SAMPLE IDENTIFICATION: 2 ROCK samples received JULY 16, 1991
PROJECT: 1703

ET#	Description	BaO	P205	SiO2	MnO	Fe2O3	MgO	Al2O3	CaO	TiO2	NaO2	K2O	L.O.I.
1 -	TG -1	.02	.06	41.25	.42	30.21	2.34	18.61	5.51	.44	.10	.08	<.01
2 -	CG -1	.03	.12	38.51	.35	31.32	2.05	19.08	7.90	.63	.07	.24	<.01

NOTE: VALUES EXPRESSED IN PERCENT

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI
B.C. CERTIFIED ASSAYER

SC91/TECK3

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-376

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

JULY 3, 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
1 ROCK SAMPLE RECEIVED JUNE 24, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	34051	1.2	.03	5	2	5	<5	8.73	<1	<1	104	32	5.00	.01	<10	5.31	2450	6	.02	10	80	120	<5	<20	106	<.01	<10	7	<10	6	25

NOTE: < = LESS THAN

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SC5/TECK2

ECO-TECH LABORATORIES LTD.

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KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-447

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

JULY 20, 1991

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
1 ROCK SAMPLE RECEIVED JULY 10, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	34052	<.2	1.08	<5	4	25	<5	12.53	<1	10	22	10	2.29	.07	20	1.30	255	<1	<0.01	15	250	8	5	<20	166	<0.01	<10	3	<10	4	63

NOTE: < = LESS THAN

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TECK3/SC5

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10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 21, 1991

CERTIFICATE OF ASSAY ETK 91-580

TECK EXPLORATION LTD.
960 - 175 2nd. AVE.
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

SAMPLE IDENTIFICATION: 2 ROCK SAMPLES RECEIVED AUGUST 2, 1991
PROJECT: 1709

ET#	Description	PB (%)	ZN (%)
1 -	34062	.04	.02

ECO-TECH LABORATORIES LTD
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ECO-TECH LABORATORIES LTD.
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KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-580
960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

SEPTEMBER 10 , 1991

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
2 ROCK SAMPLES RECEIVED AUGUST 2, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- 34062	.6	.10	5	4	10	<5	.29	<1	2	299	9	.94	.01	10	.07	94	18	<.01	11	1100	322	<5	<20	11	<.01	<10	2	<10	5	119

NOTE: < = LESS THAN

TECK3/SC5

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B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING · ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

AUGUST 19, 1991

CERTIFICATE OF ANALYSIS ETK 91-580

TECK EXPLORATION LTD.
960-175 2ND AVE.
KAMLOOPS, B.C.
V2C 5W1

SAMPLE IDENTIFICATION: 2 ROCK samples received AUGUST 2, 1991
PROJECT: 1703

ET#	Description	BaO	P2O5	SiO2	MnO	Fe2O3	MgO	Al2O3	CaO	TiO2	NaO2	K2O	L.O.I.
2-	34063	.04	.13	50.20	.22	18.35	3.03	22.14	2.73	.69	.46	2.16	.36

NOTE: VALUES EXPRESSED IN PERCENT

SC91/TECK 4

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B.C. CERTIFIED ASSAYER

ECO-TECH LABORATORIES LTD.
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KAMLOOPS, B.C. V2C 2J3
PHONE - 573-5700
FAX - 573-4557

AUGUST 27, 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

TECK EXPLORATIONS LTD.- ETK 91-601
960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

PROJECT NUMBER: 1703
SAMPLE DESCRIPTION: 1 ROCK SAMPLES RECEIVED AUGUST 8 ,1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1-	34064	.6	.14	10	6	60	<5	3.21	<1	6	100	2	4.50	.04	10	.59	7249	5	<.01	1	1200	<2	<5	<20	40	<.01	10	<1	<10	10	63

ECO-TECH LABORATORIES LTD.
CLINTON AYERS
LABORATORY MANAGER

ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

SEPTEMBER 20 ,1991

CERTIFICATE OF ASSAY ETK 91-723W

TECK EXPLORATION LTD.
960 - 175 2nd. AVE.
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

SAMPLE IDENTIFICATION: 27 ROCK SAMPLES RECEIVED SEPTEMBER 4, 1991
----------------------PROJECT: 1703

ET#	Description	BaO	P2O5	SiO2	MnO	Fe2O3	MgO	Al2O3	CaO	TiO2	Na2O	K2O	L.O.I.
1 -	34065	.06	.40	83.33	.18	3.27	.36	7.05	.92	.71	.12	2.25	1.38
2 -	34066	.06	.64	89.81	.01	.72	.12	5.02	.75	.45	.06	1.43	.83
3 -	34067	.02	.47	85.82	.82	4.13	.10	1.96	2.82	.32	.05	.29	3.22
4 -	34068	.22	.07	73.93	.31	3.42	.57	13.82	.67	.80	.20	3.79	2.11
5 -	34069	.06	.34	90.19	.09	2.86	.10	3.15	.55	.35	.12	.99	1.21
6 -	34070	.09	.14	56.39	.12	8.95	1.86	22.33	1.02	.86	.98	4.17	3.16
7 -	34071	.10	.05	81.21	.18	1.71	.98	8.01	1.82	.63	.18	2.27	2.74
8 -	34072	.01	.11	34.29	2.28	9.01	6.99	1.14	19.65	.12	.15	.31	25.96
9 -	34073	.18	.16	82.64	.08	.87	.34	9.99	.61	.33	.21	2.76	1.94
10 -	34074	.03	.41	41.04	3.26	35.36	2.82	1.89	1.17	.07	.34	.45	13.14
11 -	34075	.04	.07	17.20	2.20	9.08	11.48	1.76	23.33	.09	.11	.50	34.18
12 -	34076	.16	.07	53.60	.06	10.47	2.25	22.18	.35	.82	.45	6.42	2.98
13 -	34077	.08	.21	88.21	.04	1.67	.25	5.30	.72	.41	.12	1.44	1.43
14 -	34078	.06	.42	64.22	.33	19.50	.58	2.52	1.21	.14	.36	.75	9.83
15 -	34079	.09	.14	71.83	.25	9.80	1.21	8.52	1.41	.49	.27	2.07	3.89
16 -	34080	.20	.14	54.43	.05	7.98	1.64	24.43	.04	.87	.45	6.54	3.01
17 -	34081	.06	.09	40.54	.05	5.55	3.45	14.89	17.90	.47	.60	2.33	14.20
18 -	34082	.01	.17	17.55	1.91	64.41	3.69	1.09	.47	.08	.61	.11	9.94
19 -	34083	.02	.17	88.36	.17	3.66	.22	3.84	.38	.40	.07	.97	1.67
20 -	34084	.07	.71	51.62	.91	6.21	.58	5.65	18.86	.30	.22	1.44	13.05
21 -	34085	.02	.20	11.94	5.32	12.24	7.07	1.30	29.26	.08	.13	.15	32.25
25 -	34089	.16	.13	43.44	.13	6.57	2.51	20.92	11.80	.71	.79	4.09	7.80
26 -	34090	.03	.28	11.31	2.08	9.15	13.02	1.65	26.76	.09	.12	.64	34.78
27 -	34091	.10	.14	55.91	.12	9.19	2.10	20.58	.80	.79	.45	5.86	2.68

ECO-TECH LABORATORIES LTD.
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B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

SEPTEMBER 20, 1991

CERTIFICATE OF ASSAY ETK 91-723

TECK EXPLORATION LTD.
960 - 175 2nd. AVE.
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

SAMPLE IDENTIFICATION: 27 ROCK SAMPLES RECEIVED SEPTEMBER 4, 1991
---------------------PROJECT: 1703

ET#	Description	AG (g/t)	AG (oz/t)	PB (%)	ZN (%)
22 -	34086	24.4	.71	.76	.02
23 -	34087	2.4	.07	.12	.13
24 -	34088	1.2	.04	.10	.55

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KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

SEPTEMBER 20,1991

TECK EXPLORATIONS LTD.- ETK 91-723
960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
27 ROCK SAMPLES RECEIVED SEPTEMBER 3, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
22-	34086	20.6	.05	484	4	5	<5	.27	1	3	78	1	5.44	.05	<10	.03	459	3	.04	8	200	7290	30	<20	9	<.01	10	6	<10	<1	233
23-	34087	3.0	.03	347	4	<5	<5	8.45	2	<1	23	<1	5.56	.03	<10	3.56	1838	5	.04	12	400	1016	15	<20	63	<.01	40	9	30	2	1074
24-	34088	2.4	.16	31	2	40	<5	13.57	9	4	13	1	5.52	.07	<10	7.03	1871	7	.04	3	1010	904	5	<20	158	.01	<10	12	90	6	4603

NOTE: < = LESS THAN

TECK3/SC5

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FRANK J. PEZZOTTI
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ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

SEPTEMBER 25,1991

CERTIFICATE OF ASSAY ETK 91-749

TECK EXPLORATION LTD.
960 - 175 2nd. AVE.
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

SAMPLE IDENTIFICATION: 3 ROCK SAMPLES RECEIVED SEPTEMBER 13, 1991
---------------------- PROJECT: 1703

ET#	Description	BaO	P2O5	SiO2	MnO	Fe2O3	MgO	Al2O3	CaO	TiO2	Na2O	K2O	L.O.I.
1 -	34092	.02	.12	8.66	5.14	18.25	1.50	1.41	33.61	.06	.24	.81	29.92
2 -	34093	.09	.19	83.49	.26	2.08	.55	7.71	.63	.61	.23	2.23	1.602
3 -	34094	.07	.15	54.70	.10	7.66	1.87	23.09	1.91	.81	.96	4.79	3.065

NOTE: < = less than

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CLINTON S. AYERS
LABORATORY MANAGER

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-749
960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

SEPTEMBER 25 ,1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
3 ROCK SAMPLES RECEIVED SEPTEMBER 13 ,1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	34092	4.2	.32	50	4	110	<5	>15	1	5	7	13	7.27	.12	10	.72	>10000	3	<.01	4	300	190	15	<20	<1	.02	20	<1	<10	<1	1495

NOTE: < = LESS THAN

Per
ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI
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TECK3/SC5

SOIL

ECO-TECH LABORATORIES LTD.

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KAMLOOPS, B.C. V2C 2J3
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FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-448

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

JULY 26, 1991

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
8 SOIL SAMPLES RECEIVED JULY 9, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 - L1	00N 0+ 00	<.2	3.20	<5	10	75	<5	.37	<1	11	15	7	2.30	.07	<10	.60	495	<1	.02	12	1410	10	<5	<20	23	.13	<10	26	<10	4	110
2 - L1	00N 0+ 50 E	<.2	1.36	10	8	30	<5	.18	<1	8	15	5	1.66	.02	<10	.24	153	<1	.03	9	230	6	<5	<20	16	.09	<10	39	<10	2	42
3 - L1	00N 1+ 00 E	<.2	3.90	<5	8	85	<5	.40	<1	15	32	8	2.90	.08	<10	.64	829	<1	.04	20	700	14	<5	<20	32	.15	<10	32	<10	3	83
4 - L1	00N 1+ 50 E	<.2	4.34	<5	10	170	<5	.20	<1	16	36	15	3.03	.13	<10	.62	1404	<1	.02	19	1100	14	<5	<20	19	.10	<10	31	<10	4	88
5 - L1	00N 2+ 00 E	<.2	3.22	20	8	55	<5	1.20	<1	20	3	14	4.02	.01	10	.34	532	<1	.11	20	1100	20	<5	<20	120	.04	<10	2	<10	6	101
6 - L1	00N 2+ 50 E	<.2	1.14	15	6	50	<5	.16	<1	10	12	5	1.01	.03	<10	.24	955	<1	.02	10	670	8	<5	<20	14	.11	<10	35	<10	2	50
7 - L1	00N 3+ 00 E	<.2	4.55	10	8	60	<5	.15	<1	14	11	8	3.77	.02	<10	.27	293	<1	.02	15	980	20	5	<20	10	.13	<10	10	<10	1	76
8 - L1	00N 3+ 50 E	<.2	5.08	<5	8	40	<5	1.53	<1	20	47	10	4.90	.04	10	1.01	236	<1	.16	46	690	20	10	<20	120	.11	<10	23	<10	2	136

NOTE: < = LESS THAN

TECK3/SC5

ECO-TECH LABORATORIES LTD.
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B.C. CERTIFIED ASSAYER

ECO-TECH LABORATORIES LTD.   TECK EXPLORATIONS LTD.- ETK 91-522

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

AUGUST 6, 1991

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PAGE 1

PROJECT NUMBER: 1703
30 SOIL SAMPLES RECEIVED JULY 25, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- L 4 + 00S 0 + 00	<.2	3.05	5	6	105	<5	.19	<1	27	41	29	5.56	.05	<10	.89	374	1	.01	44	650	24	<5	<20	15	.05	<10	28	<10	<1	108
2	- L 4 + 00S 0 + 50E	<.2	2.79	5	10	105	<5	.13	<1	23	27	15	3.98	.13	10	.64	286	<1	.01	37	650	28	<5	<20	15	.06	<10	16	<10	<1	80
3	- L 4 + 00S 1 + 00E	<.2	2.19	<5	10	65	<5	.16	<1	18	19	11	3.76	.08	<10	.47	552	<1	.01	26	530	20	5	<20	15	.07	<10	22	<10	<1	69
4	- L 4 + 00S 1 + 50E	<.2	1.35	5	6	75	<5	.08	<1	13	18	10	3.57	.08	10	.36	462	<1	.01	15	1710	16	<5	<20	11	.06	<10	22	<10	<1	54
5	- L 4 + 00S 2 + 00E	.2	1.54	<5	6	65	<5	.09	<1	14	22	11	4.16	.10	10	.48	418	<1	.01	19	1000	16	<5	<20	12	.04	<10	20	<10	<1	58
6	- L 4 + 00S 2 + 50E	<.2	.64	<5	6	30	<5	.07	<1	7	10	8	2.12	.04	10	.17	156	<1	.01	9	660	18	<5	<20	6	.08	<10	29	<10	<1	33
7	- L 4 + 00S 3 + 00E	<.2	1.85	<5	8	45	<5	.18	<1	11	18	14	4.49	.01	<10	.25	220	<1	.02	10	1200	30	<5	<20	12	.17	<10	44	<10	<1	48
8	- L 4 + 00S 3 + 50E	<.2	4.15	5	10	55	<5	.31	<1	32	13	31	7.12	<.01	<10	.54	575	1	.03	46	1430	38	5	<20	25	.06	<10	5	<10	2	117
9	- L 4 + 00S 4 + 00E	<.2	4.25	5	12	65	<5	.16	<1	16	29	14	4.03	.02	<10	.35	585	<1	.02	19	970	32	<5	<20	10	.14	<10	26	<10	2	83
10	- L 4 + 00S 4 + 50E	<.2	1.71	5	8	35	<5	.08	<1	14	26	18	5.09	.08	10	.58	214	<1	.01	23	790	16	<5	<20	9	.06	<10	22	<10	<1	47
11	- L 4 + 00S 5 + 00E	<.2	3.67	<5	8	55	<5	.53	<1	33	16	46	7.36	.02	<10	.42	1108	<1	.04	39	1050	30	<5	<20	33	.03	<10	3	<10	2	87
12	- L 4 + 00S 5 + 50E	.4	.88	10	4	30	<5	.06	<1	10	8	19	5.04	.03	20	.20	154	<1	.01	21	1510	490	<5	<20	11	.02	<10	14	<10	<1	753
13	- L 4 + 00S 6 + 00E	<.2	.38	<5	6	15	<5	.05	<1	4	5	3	1.42	.02	<10	.07	51	<1	.01	2	250	18	<5	<20	5	.11	<10	34	<10	1	31
14	- L 4 + 00S 6 + 50E	.8	4.13	5	6	55	<5	.07	<1	12	9	11	2.77	.01	<10	.11	419	<1	.02	6	1160	26	<5	<20	5	.15	<10	21	<10	4	42
15	- L 4 + 00S 7 + 00E	<.2	3.72	5	10	110	<5	.18	<1	16	26	10	6.80	.19	<10	.31	474	<1	.01	9	4380	30	<5	<20	11	.29	<10	47	<10	4	68
16	- L 6 + 00S 0 + 00	<.2	3.15	5	10	140	<5	.52	<1	18	32	9	3.59	.11	<10	.56	2140	<1	.04	25	1420	18	<5	<20	43	.09	<10	26	<10	<1	130
17	- L 6 + 00S 0 + 50E	<.2	4.64	5	12	110	<5	1.67	<1	24	37	11	5.81	.08	<10	.76	1551	<1	.18	37	2350	30	<5	<20	134	.08	<10	17	<10	<1	189
18	- L 6 + 00S 1 + 00E	<.2	3.98	5	8	60	<5	.27	<1	17	25	10	3.64	.05	<10	.45	477	<1	.02	22	940	24	<5	<20	21	.15	<10	26	<10	2	77
19	- L 6 + 00S 1 + 50E	<.2	3.43	<5	8	105	<5	.30	<1	18	33	13	3.87	.06	<10	.68	280	<1	.02	30	790	24	5	<20	21	.10	<10	26	<10	<1	84
20	- L 6 + 00S 2 + 00E	<.2	1.41	<5	8	60	<5	.15	<1	10	25	7	2.68	.03	<10	.28	207	<1	.02	12	330	16	<5	<20	10	.14	<10	45	<10	1	42
21	- L 6 + 00S 2 + 50E	<.2	3.79	<5	10	85	<5	.28	<1	19	39	9	3.45	.07	<10	.59	301	<1	.03	23	1210	26	<5	<20	22	.17	<10	40	<10	1	98
22	- L 6 + 00S 3 + 00E	<.2	5.62	5	10	75	<5	.95	<1	23	42	12	4.93	.06	<10	.94	709	<1	.06	33	1080	36	<5	<20	69	.14	<10	24	<10	1	133
23	- L 6 + 00S 3 + 50E	<.2	2.15	5	8	50	<5	.06	<1	15	21	20	4.53	.05	10	.47	202	<1	.02	22	600	18	<5	<20	9	.06	<10	22	<10	<1	52
24	- L 6 + 00S 4 + 00E	<.2	.77	5	8	30	<5	.10	<1	8	10	10	3.50	.02	<10	.21	121	<1	.01	10	470	16	<5	<20	9	.12	<10	40	<10	<1	27
25	- L 6 + 00S 4 + 50E	<.2	1.18	5	6	50	<5	.16	<1	7	11	15	3.32	.03	<10	.16	110	1	<.01	8	280	14	<5	<20	8	.07	<10	28	<10	<1	31
26	- L 6 + 00S 5 + 00E	<.2	4.43	5	10	50	<5	.44	<1	34	12	35	8.00	<.01	<10	.31	1340	<1	.03	33	2200	44	<5	<20	33	.07	<10	3	<10	3	131

ECO-TECH LABORATORIES LTD. TECK EXPLORATIONS LTD.- ETK 91-522

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ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
27 - L	6 + 00S 5 + 50E	<.2	.89	<5	6	25	<5	.06	<1	9	11	11	2.87	.04	10	.25	147	<1	<.01	13	420	14	<5	<20	8	.11	<10	32	<10	2	33
28 - L	6 + 00S 6 + 00E	<.2	1.71	5	10	80	<5	.11	<1	18	21	18	4.88	.13	10	.54	431	<1	.01	40	1100	16	<5	<20	9	.06	<10	12	<10	<1	66
29 - L	6 + 00S 6 + 50E	<.2	2.84	<5	6	55	<5	.05	<1	15	12	10	2.92	.03	<10	.22	267	<1	.01	16	1180	18	<5	<20	5	.09	<10	18	<10	<1	56
30 - L	6 + 00S 7 + 00E	<.2	1.02	<5	8	30	<5	.03	<1	7	10	5	2.17	.03	<10	.17	246	<1	.01	7	470	12	<5	<20	5	.10	<10	33	<10	1	35

NOTE: < = LESS THAN
> = GREATER THAN

ECO-TECH LABORATORIES LTD.
CLINTON AYERS
LABORATORY MANAGER

SC91/TECK1

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-582

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

AUGUST 12 , 1991

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
88 SOIL SAMPLES RECEIVED AUGUST 2, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- L 8+00 S 1+ 50E	<.2	5.51	<5	8	105	<5	.53	<1	23	47	13	4.20	.20	<10	.89	361	<1	.07	31	800	20	5	<20	61	.13	<10	21	<10	2	89
2	- L 8+00 S 2+ 00E	<.2	4.54	<5	6	110	<5	.67	<1	19	45	9	3.85	.12	<10	.91	1488	<1	.04	24	890	16	5	<20	43	.12	<10	29	<10	1	72
3	- L 8+00 S 2+ 50E	<.2	3.39	<5	8	120	<5	.56	<1	16	32	9	2.96	.13	<10	.61	1177	<1	.03	19	670	12	5	<20	37	.13	<10	27	<10	2	62
4	- L 8+00 S 3+ 00E	<.2	4.76	<5	6	55	<5	.20	<1	11	19	8	3.43	.03	<10	.30	129	1	.01	6	730	18	<5	<20	14	.14	<10	18	<10	2	45
5	- L 8+00 S 3+ 50E	<.2	2.82	5	6	90	<5	.80	<1	20	13	13	5.25	.03	<10	.47	1335	<1	.03	29	730	16	<5	<20	40	.07	<10	14	<10	<1	113
6	- L 8+00 S 4+ 00E	<.2	3.98	<5	8	30	<5	.06	<1	13	12	13	2.92	.01	<10	.24	186	1	.01	10	690	14	<5	<20	6	.09	<10	15	<10	1	36
7	- L 8+00 S 4+ 50E	<.2	1.67	5	6	45	<5	.07	<1	12	16	17	3.47	.06	10	.42	225	<1	.01	22	580	8	<5	<20	6	.04	<10	15	<10	<1	38
8	- L 8+00 S 5+ 00E	<.2	1.09	15	4	40	<5	.04	<1	10	12	10	3.48	.04	10	.29	143	<1	.01	12	320	10	<5	<20	5	.08	<10	25	<10	<1	29
9	- L 8+00 S 5+ 35E	<.2	1.67	5	6	40	<5	.07	<1	11	12	9	3.19	.03	<10	.33	81	<1	.01	10	220	8	<5	<20	6	.08	<10	25	<10	<1	28
10	- L 10+00 S 1+ 75E	<.2	4.96	<5	8	65	<5	.60	<1	24	40	20	3.98	.19	<10	.91	339	<1	.04	30	710	16	5	<20	40	.14	<10	24	<10	3	79
11	- L 10+00 S 2+ 00E	<.2	1.72	<5	6	85	<5	.22	<1	11	15	6	1.96	.05	<10	.28	994	<1	.02	7	500	10	<5	<20	15	.12	<10	26	<10	2	56
12	- L 10+00 S 2+ 50E	<.2	3.64	<5	8	55	<5	.37	<1	19	30	13	3.64	.10	<10	.69	321	<1	.03	24	580	16	<5	<20	25	.12	<10	24	<10	<1	71
13	- L 10+00 S 3+ 00E	<.2	2.73	<5	8	50	<5	.25	<1	13	15	8	2.71	.05	<10	.34	527	<1	.01	12	1160	16	<5	<20	9	.12	<10	20	<10	1	65
14	- L 12+00 S 1+ 50E	<.2	1.84	5	6	50	<5	.10	<1	13	17	14	3.40	.09	10	.52	312	<1	<.01	21	1110	10	<5	<20	7	.03	<10	10	<10	<1	41
15	- L 12+00 S 2+ 00E	<.2	1.28	10	8	55	<5	.06	<1	13	15	23	3.15	.10	10	.38	1690	<1	.01	16	1390	4	<5	<20	8	.02	<10	14	<10	<1	63
16	- L 12+00 S 2+ 50E	<.2	1.28	10	6	30	<5	.06	<1	10	12	16	3.13	.09	10	.34	298	<1	<.01	9	560	8	<5	<20	5	.03	<10	14	<10	<1	33
17	- L 12+00 S 3+ 00E	<.2	1.21	10	6	30	<5	.06	<1	12	15	16	3.19	.16	10	.48	360	<1	.01	15	850	6	<5	<20	6	.03	<10	9	<10	<1	35
18	- L 12+00 S 3+ 50E	<.2	1.43	10	6	30	<5	.05	<1	14	18	15	3.66	.14	10	.55	329	<1	<.01	17	600	8	<5	<20	7	.02	<10	10	<10	<1	37
19	- L 12+00 S 4+ 00E	<.2	1.33	10	4	55	<5	.04	<1	10	13	9	3.42	.08	10	.41	224	<1	<.01	11	1420	8	<5	<20	5	.03	<10	14	<10	<1	35
20	- L 12+00 S 4+ 50E	<.2	2.75	5	6	40	<5	.12	<1	16	17	21	3.53	.05	10	.35	307	<1	<.01	17	770	12	<5	<20	8	.05	<10	13	<10	<1	41
21	- L 12+00 S 5+ 00E	<.2	5.04	<5	10	35	<5	.68	<1	23	33	16	4.86	.05	<10	.71	545	<1	.06	31	1110	16	<5	<20	48	.08	<10	16	<10	<1	96
22	- L 12+00 S 5+ 50E	<.2	.71	10	6	30	<5	.13	<1	10	7	8	2.21	.03	10	.18	463	<1	.01	10	760	10	<5	<20	7	.07	<10	26	<10	3	39
23	- L 12+00 S 6+ 00E	<.2	1.29	10	6	35	<5	.04	<1	12	11	8	3.25	.04	10	.29	686	<1	.01	10	1030	8	<5	<20	4	.07	<10	15	<10	<1	38
24	- L 12+00 S 6+ 50E	<.2	2.03	15	6	30	<5	.07	<1	9	13	11	4.71	.03	10	.32	195	1	.01	9	710	12	<5	<20	5	.07	<10	16	<10	<1	29
25	- L 12+00 S 7+ 00E	.4	1.62	<5	6	100	<5	.13	<1	21	6	5	2.09	.03	<10	.11	2440	<1	.01	10	1690	4	<5	<20	6	.08	<10	23	<10	3	39
26	- L 12+00 S 7+ 50E	<.2	.82	10	6	20	<5	.06	<1	5	5	3	1.96	.02	<10	.11	133	<1	.01	<1	780	8	<5	<20	4	.10	<10	31	<10	1	19

ECO-TECH LABORATORIES LTD. TECK EXPLORATIONS LTD.- ETK 91-582 August 12, 1991

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ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
27	- L 14+00 S 1+ 00E	<.2	3.20	<5	8	75	<5	.26	<1	18	19	13	3.58	.09	10	.52	442	<1	.01	23	700	14	<5	<20	18	.06	<10	12	<10	2	59
28	- L 14+00 S 1+ 50E	<.2	.95	15	6	30	<5	.06	<1	9	12	13	3.50	.06	10	.32	166	<1	<.01	13	970	10	<5	<20	6	.04	<10	19	<10	<1	30
29	- L 14+00 S 2+ 00E	<.2	1.32	15	6	40	<5	.06	<1	11	12	13	3.63	.05	10	.36	273	<1	.01	12	570	8	<5	<20	7	.04	<10	14	<10	<1	36
30	- L 14+00 S 2+ 50E	<.2	2.38	15	8	50	<5	.32	<1	20	15	27	4.93	.05	10	.48	654	<1	.01	34	920	14	<5	<20	15	.03	<10	9	<10	<1	42
31	- L 14+00 S 3+ 00E	<.2	2.80	5	6	60	<5	.56	<1	18	17	13	4.09	.07	<10	.49	1276	<1	.02	19	920	14	5	<20	31	.06	<10	14	<10	2	76
32	- L 14+00 S 3+ 50E	<.2	2.96	5	8	85	<5	.28	<1	22	26	16	4.70	.06	<10	.55	838	<1	.02	35	720	14	<5	<20	21	.08	<10	21	<10	<1	80
33	- L 14+00 S 4+ 00E	<.2	1.44	5	6	40	<5	.11	<1	8	12	11	3.21	.02	<10	.20	212	<1	.01	7	520	12	<5	<20	8	.08	<10	29	<10	<1	31
34	- L 14+00 S 4+ 50E	<.2	2.08	<5	8	55	<5	.09	<1	14	15	16	3.25	.06	10	.39	800	<1	<.01	19	750	8	<5	<20	6	.03	<10	12	<10	<1	48
35	- L 14+00 S 5+ 00E	<.2	3.26	5	6	50	<5	.19	<1	18	15	17	4.53	.04	<10	.35	857	<1	.02	23	830	22	<5	<20	15	.04	<10	8	<10	1	81
36	- L 14+00 S 5+ 50E	<.2	2.22	10	8	30	<5	.06	<1	10	15	20	3.81	.03	10	.30	224	<1	.01	14	530	14	<5	<20	6	.04	<10	14	<10	<1	38
37	- L 14+00 S 6+ 00E	<.2	4.09	<5	8	35	<5	.10	<1	14	17	16	4.22	.03	<10	.26	462	<1	.01	14	850	18	<5	<20	8	.07	<10	11	<10	1	48
38	- L 14+00 S 6+ 50E	<.2	1.21	<5	6	40	<5	.05	<1	7	4	8	1.62	.02	<10	.10	972	<1	.01	<1	1350	6	<5	<20	4	.06	<10	16	<10	<1	24
39	- L 14+00 S 7+ 00E	<.2	1.02	<5	6	30	<5	.09	<1	6	4	7	1.50	.02	<10	.07	310	<1	.01	1	480	12	<5	<20	5	.06	<10	21	<10	<1	18
40	- L 14+00 S 8+ 00E	<.2	.91	10	6	55	<5	.05	<1	11	10	5	2.77	.05	<10	.19	663	<1	.01	4	360	10	<5	<20	4	.12	<10	30	<10	1	36
41	- L 16+00 S 1+ 50E	<.2	4.42	<5	12	90	<5	.80	<1	22	35	15	4.39	.11	<10	.74	1805	1	.03	29	1170	16	<5	<20	54	.08	<10	19	<10	<1	100
42	- L 16+00 S 2+ 00E	<.2	4.82	<5	8	50	<5	.62	<1	19	33	18	3.81	.14	<10	.71	660	<1	.02	24	1190	18	5	<20	29	.08	<10	14	<10	<1	69
43	- L 16+00 S 2+ 50E	<.2	2.47	<5	10	70	<5	1.31	<1	15	6	10	3.61	.03	<10	.35	1151	<1	.01	19	830	14	5	<20	42	.05	<10	9	<10	1	82
44	- L 16+00 S 3+ 00E	<.2	3.66	<5	8	45	<5	.57	<1	21	17	16	4.87	.04	<10	.49	1169	<1	.04	25	1160	16	<5	<20	50	.05	<10	7	<10	<1	91
45	- L 16+00 S 3+ 50E	<.2	2.97	<5	10	40	<5	.12	<1	18	18	18	3.58	.06	<10	.52	235	<1	.01	28	710	10	<5	<20	9	.04	<10	9	<10	<1	48
46	- L 16+00 S 4+ 00E	.2	1.93	5	6	100	<5	1.01	<1	18	9	18	3.85	.02	<10	.26	3316	1	.01	16	1070	8	<5	<20	28	.03	<10	9	<10	<1	113
47	- L 16+00 S 4+ 50E	<.2	1.43	10	6	50	<5	.10	<1	11	13	16	3.55	.03	<10	.30	252	<1	.01	12	530	12	<5	<20	6	.04	<10	20	<10	<1	49
48	- L 16+00 S 5+ 00E	<.2	1.14	15	8	30	<5	.11	<1	10	14	16	3.84	.02	<10	.29	170	<1	.01	13	460	16	<5	<20	7	.05	<10	23	<10	<1	46
49	- L 16+00 S 5+ 50E	<.2	1.78	15	6	50	<5	.09	<1	10	16	12	4.28	.01	<10	.23	666	1	.01	7	1020	18	<5	<20	5	.09	<10	33	<10	<1	42
50	- L 16+00 S 6+ 00E	<.2	3.49	<5	8	50	<5	.15	<1	11	16	13	3.92	.03	<10	.30	144	1	.01	12	940	16	5	<20	8	.07	<10	17	<10	<1	43
51	- L 16+00 S 6+ 50E	<.2	.67	10	6	35	<5	.06	<1	6	5	6	2.40	.03	<10	.11	142	<1	<.01	3	760	10	<5	<20	5	.07	<10	21	<10	<1	14
52	- L 16+00 S 7+ 00E	<.2	1.38	20	6	35	<5	.04	<1	20	10	7	4.22	.08	10	.32	533	<1	.01	15	750	18	<5	<20	5	.10	<10	23	<10	4	42
53	- L 16+00 S 7+ 50E	<.2	2.06	5	8	65	<5	.09	<1	17	13	10	2.84	.09	<10	.35	352	<1	.01	21	1340	18	<5	<20	5	.09	<10	16	<10	1	61
54	- L 16+00 S 8+ 00E	<.2	3.33	<5	8	140	<5	.31	<1	20	5	6	3.21	.06	10	.19	1349	<1	.01	21	2540	10	<5	<20	10	.12	<10	13	<10	6	37
55	- L 18+00 S 1+ 75E	<.2	6.42	<5	10	55	<5	1.56	1	24	52	22	4.57	.27	<10	1.15	627	<1	.09	35	950	20	<5	<20	114	.14	<10	21	<10	1	89
56	- L 18+00 S 2+ 00E	<.2	4.52	<5	10	70	<5	.58	<1	22	36	17	3.75	.11	<10	.65	1750	<1	.03	25	2080	14	5	<20	34	.10	<10	20	<10	2	164
57	- L 18+00 S 2+ 50E	.2	2.97	10	<2	75	<5	.18	<1	22	18	16	3.97	.03	<10	.38	1105	3	.04	29	1037	12	10	<20	17	.06	10	24	<10	5	106
58	- L 18+00 S 3+ 00E	<.2	3.61	<5	8	60	<5	.19	<1	19	23	14	3.92	.06	<10	.53	879	<1	.02	21	1170	16	5	<20	15	.09	<10	18	<10	<1	114
59	- L 18+00 S 3+ 50E	<.2	5.25	<5	10	50	<5	.53	<1	23	37	15	4.85	.16	<10	.74	472	<1	.04	32	1020	20	5	<20	40	.08	<10	13	<10	1	76
60	- L 18+00 S 4+ 00E	<.2	4.87	<5	10	45	<5	.30	<1	22	28	17	4.17	.11	<10	.64	356	<1	.02	27	740	18	<5	<20	21	.09	<10	13	<10	2	84
61	- L 18+00 S 4+ 50E	<.2	2.83	<5	6	45	<5	.08	1	13	15	19	3.99	.05	10	.36	242	<1	.01	19	790	12	<5	<20	7	.03	<10	7	<10	<1	52
62	- L 18+00 S 5+ 00E	<.2	2.60	<5	8	35	<5	.10	<1	13	6	11	2.90	.01	<10	.18	893	<1	.02	8	610	12	<5	<20	10	.06	<10	13	<10	<1	59
63	- L 18+00 S 5+ 50E	<.2	2.73	5	6	65	<5	.14	<1	17	21	19	4.30	.05	<10	.50	185	<1	<.01	32	700	12	<5	<20	9	.04	<10	14	<10	<1	70

ECO-TECH LABORATORIES LTD. TECK EXPLORATIONS LTD.- ETK 91-582 August 12, 1991

AGE 3

t#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
64	- L 18+00 S 6+ 00E	<.2	3.81	<5	8	40	<5	.18	<1	21	12	11	4.72	.03	20	.30	738	<1	.01	25	1010	24	<5	<20	12	.03	<10	2	<10	7	69
65	- L 18+00 S 6+ 50E	<.2	1.71	10	6	45	<5	.05	<1	11	16	11	3.57	.04	<10	.42	160	<1	.01	17	800	10	<5	<20	5	.03	<10	13	<10	<1	40
66	- L 18+00 S 6+ 75E	<.2	.71	10	6	35	<5	.04	<1	10	6	10	2.34	.05	10	.19	363	<1	.01	11	500	6	<5	<20	5	.04	<10	18	<10	<1	42
67	- L 20+00 S 3+ 00E	<.2	2.33	10	6	110	<5	.28	<1	19	15	13	3.85	.05	<10	.37	2045	<1	.02	20	1760	14	<5	<20	19	.04	<10	12	<10	<1	140
68	- L 20+00 S 3+ 50E	<.2	2.40	<5	6	55	<5	.07	<1	17	15	15	3.51	.05	<10	.38	359	<1	.01	22	1230	16	<5	<20	7	.05	<10	13	<10	<1	103
69	- L 20+00 S 4+ 00E	<.2	1.74	<5	6	50	<5	.08	<1	13	12	13	3.24	.04	<10	.30	227	<1	.01	17	520	18	<5	<20	7	.04	<10	15	<10	<1	96
70	- L 20+00 S 4+ 25E	<.2	.66	35	4	25	<5	.06	<1	7	5	7	2.78	<.01	<10	.14	348	<1	.01	10	560	66	<5	<20	5	.06	<10	26	<10	<1	109
71	- L 20+00 S 4+ 50E	.4	1.18	30	6	35	<5	.06	<1	16	7	26	5.10	.01	10	.19	1126	<1	.01	26	1200	102	<5	<20	6	.03	<10	11	<10	<1	464
72	- L 20+00 S 4+ 75E	<.2	1.05	15	6	35	<5	.21	<1	9	10	13	3.48	.02	<10	.21	363	<1	.01	9	750	16	<5	<20	7	.06	<10	26	<10	<1	39
73	- L 20+00 S 5+ 00E	<.2	.72	10	6	25	<5	.12	<1	5	6	6	2.35	.01	<10	.10	103	<1	.01	3	530	10	<5	<20	6	.07	<10	31	<10	<1	23
74	- L 20+00 S 5+ 50E	<.2	2.01	15	6	55	<5	.04	<1	9	15	11	4.83	.03	10	.25	261	1	.01	7	2250	16	<5	<20	6	.08	<10	21	<10	<1	36
75	- L 20+00 S 6+ 00E	1.0	.51	5	6	135	<5	.19	<1	24	9	13	1.79	.04	<10	.12	6855	<1	.01	4	650	<2	<5	<20	6	.04	<10	20	<10	<1	56
76	- L 20+00 S 6+ 25E	<.2	2.49	5	8	45	<5	.07	<1	17	14	9	3.93	.08	10	.42	363	<1	.01	19	970	14	<5	<20	6	.12	<10	21	<10	4	57
77	- L 22+00 S 2+ 75E	.2	2.68	<5	6	55	<5	.27	<1	14	13	21	3.12	.05	10	.26	921	<1	<.01	15	1140	12	<5	<20	11	.04	<10	10	<10	5	48
78	- L 22+00 S 3+ 00E	<.2	1.41	10	6	25	<5	.15	<1	9	9	19	3.13	.03	10	.17	351	<1	<.01	9	720	28	<5	<20	8	.04	<10	19	<10	1	53
79	- L 22+00 S 3+ 25E	<.2	1.50	10	6	45	<5	.07	<1	11	10	20	3.38	.02	<10	.18	469	<1	.01	9	1250	18	<5	<20	7	.06	<10	20	<10	<1	50
80	- L 22+00 S 3+ 50E	<.2	1.14	15	6	35	<5	.04	<1	10	11	15	3.62	.02	<10	.21	363	<1	.01	8	730	32	<5	<20	5	.05	<10	20	<10	<1	62
81	- L 22+00 S 3+ 75E	<.2	1.88	10	6	35	<5	.03	<1	10	14	18	3.87	.03	<10	.24	211	<1	.01	11	580	30	<5	<20	4	.05	<10	15	<10	<1	61
82	- L 22+00 S 4+ 00E	<.2	.77	15	4	25	<5	.06	<1	6	7	8	2.54	.02	<10	.14	188	<1	.01	4	700	16	<5	<20	5	.05	<10	23	<10	<1	28
83	- L 22+00 S 4+ 25E	<.2	1.27	20	6	60	<5	.02	<1	11	11	8	4.23	.03	<10	.24	447	<1	.01	6	1580	22	<5	<20	4	.06	<10	22	<10	<1	43
84	- L 22+00 S 4+ 50E	<.2	1.68	5	4	35	<5	.03	<1	9	10	11	3.26	.03	<10	.23	226	<1	<.01	8	910	18	<5	<20	5	.05	<10	18	<10	<1	38
85	- L 22+00 S 5+ 00E	<.2	.78	15	4	25	<5	.03	<1	7	8	6	3.13	.02	<10	.18	271	<1	.01	4	1010	12	<5	<20	5	.04	<10	26	<10	<1	25
86	- L 22+00 S 5+ 50E	<.2	.63	15	6	25	<5	.03	<1	7	7	11	3.14	.02	<10	.14	99	<1	.01	6	990	12	<5	<20	5	.06	<10	23	<10	<1	18
87	- L 22+00 S 6+ 00E	<.2	1.75	5	6	45	<5	.08	<1	8	5	4	2.47	.02	<10	.14	295	<1	.01	2	1900	10	<5	<20	4	.07	<10	18	<10	<1	30
88	- L 22+00 S 6+ 50E	<.2	.71	10	6	55	<5	.11	<1	12	3	5	2.70	.01	<10	.12	657	<1	.01	9	610	8	<5	<20	6	.06	<10	19	<10	2	24

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-581
960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

GUST 12 , 1991

ATTENTION: FRED DALEY

LUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
70 SOIL SAMPLES RECEIVED AUGUST 2, 1991

#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- L 24+00 S 2+ 50E	.2	1.72	5	4	60	<5	.49	<1	18	16	23	3.27	.10	20	.43	912	<1	<.01	22	1020	18	<5	<20	15	.02	<10	12	<10	5	88
2	- L 24+00 S 2+ 75E	<.2	1.81	5	4	60	<5	.30	<1	16	15	19	3.11	.10	20	.42	829	<1	.01	22	880	10	<5	<20	12	.01	<10	11	<10	7	53
3	- L 24+00 S 3+ 00E	<.2	2.09	5	4	75	<5	.23	<1	17	17	19	3.52	.11	20	.48	792	<1	.01	27	990	14	<5	<20	14	.02	<10	12	<10	4	66
4	- L 24+00 S 3+ 25E	<.2	3.76	<5	6	50	<5	.60	<1	21	33	21	3.80	.07	20	.63	1198	<1	.06	29	1140	16	<5	<20	46	.04	<10	15	<10	8	108
5	- L 24+00 S 3+ 50E	<.2	1.07	5	4	30	<5	.09	<1	9	11	21	2.85	.05	10	.31	301	<1	.01	15	520	12	<5	<20	8	.03	<10	19	<10	<1	36
6	- L 24+00 S 4+ 75E	.2	1.55	5	4	55	<5	.18	<1	13	16	18	3.14	.07	20	.51	739	<1	<.01	22	480	10	5	<20	10	.03	<10	16	<10	5	54
7	- L 24+00 S 4+ 00E	.2	1.35	5	4	35	<5	.08	<1	6	10	25	2.79	.03	10	.16	141	1	.01	10	690	12	<5	<20	7	.04	<10	17	<10	<1	25
8	- L 24+00 S 4+ 25E	.2	1.03	10	6	35	<5	.04	<1	7	10	13	3.07	.03	10	.21	277	<1	.01	10	1050	12	<5	<20	5	.04	<10	20	<10	<1	23
9	- L 24+00 S 4+ 50E	.2	1.67	10	6	45	<5	.04	<1	9	14	15	3.36	.04	10	.32	278	1	<.01	14	660	12	<5	<20	5	.04	<10	17	<10	<1	33
10	- L 24+00 S 4+ 75E	<.2	.51	5	4	20	<5	.04	<1	4	5	7	1.81	.02	10	.10	63	<1	.01	7	250	8	<5	<20	4	.03	<10	22	<10	<1	16
11	- L 24+00 S 5+ 00E	<.2	1.62	10	4	45	<5	.04	<1	9	13	19	3.63	.03	10	.24	317	1	.01	11	830	12	<5	<20	6	.06	<10	20	<10	<1	36
12	- L 24+00 S 5+ 50E	<.2	2.11	10	4	55	<5	.04	<1	10	16	13	3.79	.06	10	.39	433	<1	.01	14	910	12	<5	<20	6	.04	<10	16	<10	<1	32
13	- L 24+00 S 6+ 00E	<.2	1.31	20	6	45	<5	.10	<1	12	17	15	4.42	.06	10	.51	189	1	<.01	22	1100	8	5	<20	8	.03	<10	15	<10	<1	33
14	- L 24+00 S 6+ 50E	<.2	.50	5	4	15	<5	.04	<1	4	3	5	1.72	.01	<10	.06	53	<1	.01	5	660	4	<5	<20	4	.05	<10	29	<10	<1	12
15	- L 26+00 S 1+ 75E	.2	1.75	5	6	65	<5	.09	<1	11	17	13	3.16	.09	10	.31	401	1	.01	15	1771	30	<5	<20	8	.05	<10	19	<10	<1	75
16	- L 26+00 S 2+ 00E	<.2	2.14	<5	4	65	<5	.01	<1	15	14	14	3.14	.07	10	.33	565	<1	.01	20	1117	32	<5	<20	18	.04	<10	12	<10	<1	106
17	- L 26+00 S 2+ 50E	<.2	1.85	5	6	65	<5	.14	<1	14	16	16	3.23	.09	10	.40	1202	<1	.01	23	1260	16	<5	<20	10	.04	<10	14	<10	<1	69
18	- L 26+00 S 3+ 00E	.2	1.43	10	4	60	<5	.15	<1	12	12	18	3.19	.06	10	.28	875	<1	<.01	15	780	12	<5	<20	9	.04	<10	20	<10	<1	49
19	- L 26+00 S 3+ 50E	<.2	1.72	10	6	45	<5	.06	<1	13	16	16	3.79	.06	10	.36	495	<1	<.01	17	2450	16	<5	<20	5	.05	<10	19	<10	<1	50
20	- L 26+00 S 4+ 00E	.2	.54	5	4	35	<5	.11	<1	5	6	11	1.84	.03	<10	.12	348	<1	<.01	10	670	16	<5	<20	8	.02	<10	16	<10	<1	37
21	- L 26+00 S 4+ 50E	<.2	1.43	15	6	85	<5	.13	<1	11	12	17	3.38	.05	10	.28	1116	<1	.01	17	1800	22	<5	<20	10	.04	<10	19	<10	<1	68
22	- L 26+00 S 5+ 00E	<.2	.74	10	4	25	<5	.04	<1	5	6	6	2.05	.02	<10	.12	158	<1	.01	6	450	16	<5	<20	5	.04	<10	22	<10	<1	25
23	- L 26+00 S 5+ 50E	<.2	.41	10	6	15	<5	.06	<1	6	5	13	1.91	.03	10	.12	89	<1	.01	12	420	8	<5	<20	5	.04	<10	18	<10	<1	19
24	- L 26+00 S 6+ 00E	<.2	.98	15	6	25	<5	.19	<1	22	12	16	4.08	.06	60	.25	802	<1	<.01	30	1190	14	<5	<20	14	.03	<10	13	<10	34	29
25	- L 28+00 S B/L	.2	1.31	10	8	45	<5	.27	<1	16	13	15	3.16	.08	20	.38	1240	<1	<.01	25	570	58	<5	<20	13	.02	<10	10	<10	3	156
26	- L 28+00 S 0+ 50E	<.2	1.42	5	6	55	<5	.20	<1	19	15	14	2.87	.11	20	.39	1190	<1	<.01	28	750	20	<5	<20	13	.02	<10	9	<10	7	101

ST#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
27	- L 28+00 S 1+ 00E	<.2	1.99	<5	6	50	<5	.21	<1	13	16	14	2.70	.11	10	.44	391	<1	.01	24	680	12	<5	<20	15	.02	<10	7	<10	2	93
28	- L 28+00 S 1+ 50E	<.2	1.56	10	6	45	<5	.05	<1	20	20	25	3.56	.12	20	.66	281	<1	.01	49	580	8	<5	<20	9	.03	<10	12	<10	<1	41
29	- L 28+00 S 2+ 00E	<.2	1.74	5	4	70	<5	.13	<1	15	15	12	3.27	.08	10	.39	720	<1	.01	24	590	22	<5	<20	11	.03	<10	15	<10	<1	77
30	- L 28+00 S 2+ 50E	<.2	.72	10	6	55	<5	.50	<1	11	9	15	2.29	.07	10	.27	720	<1	<.01	17	680	8	<5	<20	15	.02	<10	11	<10	<1	45
31	- L 28+00 S 3+ 00E	<.2	.93	15	4	25	<5	.12	<1	12	12	14	2.91	.08	10	.36	249	<1	<.01	22	530	10	<5	<20	7	.02	<10	13	<10	<1	47
32	- L 28+00 S 3+ 50E	<.2	.70	10	6	35	<5	.17	<1	12	10	18	2.68	.05	10	.22	367	<1	<.01	19	610	8	<5	<20	10	.02	<10	13	<10	1	31
33	- L 28+00 S 4+ 00E	<.2	.42	10	4	5	<5	.05	<1	7	4	15	1.95	.03	10	.10	120	<1	<.01	12	290	6	<5	<20	4	.04	<10	19	<10	<1	17
34	- L 28+00 S 4+ 50E	.2	.32	5	6	40	<5	.57	<1	4	3	19	1.41	.01	<10	.06	95	<1	<.01	10	393	6	<5	<20	12	.03	<10	17	<10	1	16
35	- L 28+00 S 5+ 00E	<.2	.39	10	6	20	<5	.21	<1	6	7	14	2.00	.05	10	.14	145	<1	<.01	14	550	6	<5	<20	7	.02	<10	14	<10	<1	27
36	- L 28+00 S 5+ 50E	<.2	.89	10	6	40	<5	.12	<1	9	10	13	2.73	.07	10	.31	469	<1	<.01	14	890	8	<5	<20	7	.01	<10	13	<10	<1	31
37	- L 28+00 S 6+ 00E	<.2	1.01	10	6	30	<5	.05	<1	9	11	17	3.10	.06	10	.27	323	<1	.01	13	1770	8	<5	<20	5	.03	<10	14	<10	<1	25
38	- L 30+00 S B/L	<.2	.88	10	4	40	<5	.20	<1	11	12	13	2.43	.09	10	.29	311	<1	<.01	18	430	8	<5	<20	9	.02	<10	12	<10	<1	33
39	- L 30+00 S 0+ 50E	<.2	1.05	5	6	30	<5	.67	<1	9	14	10	1.86	.08	20	.26	121	<1	<.01	38	650	6	<5	<20	13	.01	<10	7	<10	7	27
40	- L 30+00 S 1+ 00E	<.2	.94	10	6	35	<5	.25	<1	10	13	13	2.74	.08	10	.27	219	<1	<.01	22	390	10	<5	<20	8	.02	<10	12	<10	<1	29
41	- L 30+00 S 1+ 50E	<.2	1.27	5	4	45	<5	.16	<1	12	14	15	2.45	.09	20	.28	589	<1	.01	20	840	8	<5	<20	8	.01	<10	8	<10	6	45
42	- L 30+00 S 2+ 00E	<.2	.71	10	4	25	<5	.43	<1	7	10	11	2.46	.07	10	.23	268	<1	<.01	15	360	6	<5	<20	9	.02	<10	13	<10	<1	24
43	- L 30+00 S 2+ 50E	<.2	.92	5	6	35	<5	.30	<1	9	12	11	2.37	.10	10	.27	278	<1	<.01	17	410	10	<5	<20	13	.01	<10	9	<10	<1	28
44	- L 30+00 S 3+ 00E	<.2	.61	5	4	40	<5	.42	<1	9	8	20	2.08	.05	10	.19	738	<1	<.01	15	410	6	<5	<20	18	.04	<10	17	<10	2	41
45	- L 30+00 S 3+ 50E	<.2	.80	10	6	25	<5	.05	<1	10	10	14	2.71	.06	10	.26	268	<1	.01	16	370	8	<5	<20	5	.02	<10	14	<10	<1	29
46	- L 30+00 S 4+ 00E	<.2	1.57	5	4	45	<5	.19	<1	18	19	16	3.31	.13	20	.58	597	<1	.01	26	560	10	<5	<20	13	.02	<10	9	<10	6	44
47	- L 30+00 S 4+ 50E	<.2	1.37	5	6	45	<5	.26	<1	15	16	17	3.17	.13	30	.52	712	<1	.01	26	570	10	<5	<20	12	.02	<10	9	<10	6	46
48	- L 30+00 S 5+ 00E	<.2	1.18	5	8	35	<5	.85	<1	16	12	16	2.48	.14	30	.46	787	<1	<.01	25	880	8	<5	<20	17	.02	<10	6	<10	12	45
49	- L 30+00 S 5+ 50E	<.2	.11	<5	6	5	<5	1.66	<1	1	1	4	.46	.01	<10	.06	97	<1	<.01	5	310	<2	<5	<20	16	<.01	<10	4	<10	<1	12
50	- L 30+00 S 6+ 00E	.2	1.48	5	8	55	<5	.20	<1	34	9	15	2.77	.04	30	.17	1806	1	.01	17	550	10	<5	<20	9	.08	<10	21	<10	10	41
51	- L 30+00 S 0+ 50W	<.2	1.31	5	4	50	<5	.10	<1	13	16	11	2.52	.16	10	.40	441	<1	.01	20	480	8	<5	<20	8	.01	<10	9	<10	<1	49
52	- L 30+00 S 1+ 00W	<.2	1.07	5	8	30	<5	.33	<1	11	12	10	1.94	.08	20	.27	342	<1	.01	34	610	8	<5	<20	15	.01	<10	7	<10	6	27
53	- L 30+00 S 1+ 50W	<.2	.81	5	6	30	<5	.21	<1	9	9	10	2.31	.06	10	.24	352	<1	<.01	16	320	8	<5	<20	9	.03	<10	15	<10	<1	32
54	- L 32+00 S B/L	<.2	1.46	<5	8	45	<5	.49	<1	15	13	14	2.46	.11	20	.37	533	<1	.01	27	700	8	<5	<20	15	.02	<10	9	<10	10	43
55	- L 32+00 S 0+ 50E	<.2	1.00	5	6	30	<5	.32	<1	11	8	18	2.39	.05	10	.17	655	<1	<.01	13	490	10	<5	<20	10	.05	<10	21	<10	5	31
56	- L 32+00 S 1+ 00E	<.2	1.52	5	8	50	<5	.10	<1	13	13	16	2.93	.10	20	.30	601	<1	.01	17	800	12	<5	<20	7	.03	<10	15	<10	6	49
57	- L 32+00 S 1+ 50E	.2	1.85	<5	6	80	<5	.61	<1	16	17	18	2.61	.16	40	.44	1195	<1	<.01	25	980	10	<5	<20	18	.02	<10	7	<10	18	64
58	- L 32+00 S 2+ 00E	<.2	1.55	<5	8	40	<5	.53	<1	16	11	16	2.57	.07	30	.21	1121	<1	<.01	18	900	10	<5	<20	11	.02	<10	10	<10	14	43
59	- L 32+00 S 2+ 50E	<.2	1.81	5	8	80	<5	.83	<1	15	19	21	2.73	.17	40	.43	887	<1	<.01	30	880	12	<5	<20	18	.01	<10	7	<10	16	55
60	- L 32+00 S 3+ 00E	.2	1.26	5	8	30	<5	.60	<1	13	8	21	2.50	.04	10	.17	1830	<1	<.01	13	1090	10	<5	<20	12	.04	<10	20	<10	5	46
61	- L 32+00 S 3+ 50E	.2	.70	5	4	35	<5	.52	<1	8	6	19	2.13	.04	10	.13	680	<1	<.01	15	470	10	<5	<20	9	.05	<10	21	<10	2	43
62	- L 32+00 S 4+ 00E	<.2	.54	10	6	20	<5	.16	<1	6	8	22	2.54	.02	20	.08	76	<1	<.01	18	560	12	<5	<20	6	.03	<10	21	<10	1	25
63	- L 32+00 S 4+ 50E	<.2	.10	<5	8	40	<5	2.38	<1	<1	<1	8	.22	.03	<10	.08	795	<1	<.01	2	490	4	<5	<20	21	<.01	<10	<1	<10	<1	55

GE 3

#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
64	- L 32+00 S 5+ 00E	<.2	1.15	10	8	35	<5	.48	<1	12	13	17	3.32	.08	20	.38	396	<1	<.01	19	430	12	<5	<20	12	.04	<10	17	<10	2	36
65	- L 32+00 S 5+ 50E	<.2	1.17	10	4	95	<5	.34	<1	13	13	15	3.05	.08	10	.40	924	<1	<.01	19	660	10	<5	<20	11	.02	<10	16	<10	<1	73
66	- L 32+00 S 6+ 00E	<.2	.72	10	6	25	<5	.12	<1	11	9	15	2.44	.07	10	.23	249	<1	.01	29	730	8	<5	<20	9	.02	<10	17	<10	3	26
67	- L 32+00 S 0+ 50W	<.2	1.73	10	6	95	<5	.17	<1	20	12	12	3.94	.05	10	.33	1324	<1	.02	24	650	14	<5	<20	16	.06	<10	18	<10	1	103
68	- L 32+00 S 1+ 00W	.2	1.41	15	8	120	<5	.49	<1	17	15	9	3.80	.03	<10	.35	2857	<1	<.01	18	1200	10	<5	<20	17	.08	<10	28	<10	<1	130
69	- L 32+00 S 1+ 50W	<.2	.58	10	4	30	<5	.05	<1	8	8	9	2.64	.02	<10	.14	203	<1	.01	9	320	12	<5	<20	5	.10	<10	40	<10	1	35
70	- L 32+00 S 2+ 100W	<.2	.79	5	6	40	<5	.06	<1	6	8	8	2.06	.03	<10	.14	164	<1	.01	8	560	8	<5	<20	8	.07	<10	27	<10	<1	31

TE: < = LESS THAN

CK3/SC5

ECO-TECH LABORATORIES LTD.
Per Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-600
960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

AUGUST 27, 1991

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
2 SOIL SAMPLES RECEIVED AUGUST 8, 1991

ET#	DESCRIPTION	AU	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	-L 18+00S 4+25 E	<5	<.2	2.50	<5	4	55	<5	.10	<1	15	<1	12	6.80	.06	<10	.30	320	<1	.02	15	730	20	<5	<20	8	.04	10	15	<10	<1	57
2	-L 18+00S 4+75 E	<5	<.2	2.01	<5	6	65	<5	.07	<1	12	6	7	5.94	.07	<10	.33	219	<1	.01	11	580	16	<5	<20	6	.06	10	30	<10	<1	64

NOTE: < = LESS THAN

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CLINTON AYERS
LABORATORY MANAGER

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-709
960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

SEPTEMBER 11, 1991

ATTENTION: FRED DALEY / GREGG THOMPSON

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
27 SOIL SAMPLES RECEIVED AUGUST 29, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1-	L 16 + 00S 4+ 25E	<.2	2.04	15	6	45	<5	.29	<1	15	12	47	3.25	.02	<10	.25	1242	<1	.01	19	450	14	<5	<20	11	.05	<10	16	<10	<1	62
2-	L 16 + 00S 4+ 75E	<.2	1.72	15	6	40	<5	.16	<1	12	11	23	3.14	.02	<10	.23	532	<1	<.01	15	470	14	<5	<20	7	.04	<10	14	<10	<1	40
3-	L 16 + 00S 5+ 25E	<.2	.76	10	4	40	<5	.05	<1	8	10	7	2.74	.02	<10	.21	349	<1	.01	12	1510	10	<5	<20	5	.08	<10	29	<10	<1	41
4-	L 16 + 00S 5+ 75E	<.2	2.31	25	6	35	<5	.10	<1	9	9	9	4.48	<.01	<10	.16	185	<1	<.01	8	890	24	<5	<20	6	.09	<10	14	<10	<1	63
5-	L 16 + 00S 6+ 25E	<.2	.40	5	4	30	<5	.02	<1	4	2	8	1.35	.01	<10	.05	437	<1	.01	6	240	6	<5	<20	2	.04	<10	20	<10	1	17
6-	L 16 + 00S 6+ 75E	<.2	.34	10	6	20	<5	.03	<1	5	3	4	1.38	.02	<10	.07	148	<1	<.01	8	200	12	<5	<20	3	.03	<10	21	<10	1	28
7-	L 18 + 00S 5+ 25E	<.2	2.28	20	6	35	<5	.06	<1	10	9	7	4.11	<.01	<10	.16	229	1	<.01	8	500	22	<5	<20	5	.12	<10	29	<10	1	54
8-	L 18 + 00S 5+ 75E	<.2	2.05	20	4	30	<5	.14	<1	11	7	11	3.83	<.01	<10	.16	336	1	.01	12	550	22	<5	<20	7	.06	<10	15	<10	<1	57
9-	L 21 + 94S 3+ 76E	<.2	2.93	25	6	45	<5	.10	<1	18	18	17	3.85	.06	10	.45	400	<1	<.01	33	1020	38	<5	<20	8	.04	<10	9	<10	3	147
10-	L 22 + 00S 3+ 45E	<.2	2.56	20	6	40	<5	.08	<1	15	17	20	3.35	.06	10	.42	338	1	.01	32	830	36	<5	<20	7	.03	<10	9	<10	3	117
11-	L 28 + 00S 0+ 25E	.2	1.34	15	4	80	<5	.21	<1	14	14	15	2.63	.10	10	.33	1493	<1	.01	27	380	18	<5	<20	10	.02	<10	11	<10	4	143
12-	L 28 + 00S 0+ 75E	<.2	1.37	15	6	40	<5	.09	<1	10	12	13	2.52	.07	<10	.26	259	<1	.01	16	340	16	<5	<20	7	.02	<10	13	<10	1	56
13-	L 28 + 00S 0+ 25W	<.2	.93	20	4	50	<5	.25	<1	11	12	17	3.30	.07	<10	.28	630	<1	<.01	19	400	62	<5	<20	10	.02	<10	13	<10	<1	123
14-	L 28 + 00S 0+ 50W	<.2	1.29	15	4	65	<5	.23	<1	15	13	10	3.01	.04	<10	.31	1665	<1	<.01	17	580	18	<5	<20	11	.04	<10	16	<10	<1	108
15-	L 28 + 00S 0+ 75W	<.2	4.41	20	4	110	<5	1.28	<1	22	41	17	4.04	.17	<10	.87	3043	<1	.05	34	1660	16	5	<20	60	.08	<10	18	<10	<1	237
16-	L 28 + 00S 1+ 00W	<.2	1.73	15	6	140	<5	.24	<1	16	16	14	3.01	.04	<10	.35	1268	<1	.01	20	970	12	<5	<20	13	.05	<10	19	<10	<1	135
17-	L 28 + 00S 1+ 25W	<.2	1.53	20	6	60	<5	.10	<1	14	15	14	2.97	.11	10	.42	687	<1	<.01	27	790	40	<5	<20	8	.02	<10	7	<10	2	187
18-	L 30 + 00S 0+ 25E	<.2	2.09	25	6	40	<5	.43	<1	15	18	13	3.23	.08	10	.38	324	<1	.02	24	510	14	<5	<20	32	.04	<10	13	<10	6	44
19-	L 32 + 00S 0+ 75E	<.2	.79	15	4	25	<5	.17	<1	8	10	9	2.85	.04	<10	.27	128	<1	<.01	14	270	10	<5	<20	8	.02	<10	10	<10	<1	29
20-	L 30 + 00S 0+ 25W	<.2	.53	15	4	20	<5	.05	<1	6	8	10	2.21	.03	<10	.18	173	<1	<.01	11	270	8	<5	<20	5	.02	<10	14	<10	<1	30
21-	L 30 + 00S 0+ 75W	<.2	.89	15	4	35	<5	.08	<1	10	12	12	2.51	.07	<10	.28	232	<1	<.01	17	280	10	<5	<20	7	.03	<10	11	<10	<1	33
22-	L 30 + 00S 1+ 25W	<.2	1.52	15	4	35	<5	.30	<1	12	15	10	2.30	.06	10	.32	445	<1	.02	24	480	10	<5	<20	17	.02	<10	8	<10	5	37
23-	L 32 + 00S 0+ 25E	<.2	.68	10	4	25	<5	.59	<1	10	8	17	2.00	.04	10	.18	258	<1	<.01	21	350	8	<5	<20	13	.03	<10	13	<10	6	36
24-	L 32 + 00S 0+ 25W	<.2	1.24	15	4	45	<5	.42	<1	13	8	15	2.87	.03	<10	.18	989	<1	<.01	17	830	12	<5	<20	12	.04	<10	13	<10	1	85
25-	L 32 + 00S 0+ 75W	<.2	1.18	10	4	25	<5	.06	<1	6	5	13	1.90	.01	<10	.08	129	<1	.01	8	330	10	<5	<20	4	.06	<10	22	<10	1	31
26-	L 32 + 00S 1+ 25W	.2	.44	10	6	110	<5	.81	<1	8	7	7	1.75	.04	<10	.15	2181	<1	<.01	10	480	6	<5	<20	20	.05	<10	19	<10	<1	71
27-	L 32 + 00S 1+ 75W	<.2	1.73	15	4	40	<5	.08	<1	11	12	13	2.50	.02	<10	.19	445	<1	.01	12	550	12	<5	<20	6	.05	<10	20	<10	<1	47

NOTE: < = LESS THAN

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TECK4/SC5

ECO-TECH LABORATORIES LTD.

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KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-456

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

AUGUST 1, 1991

ATTENTION: STEVE JENSEN

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
7 SOIL SAMPLES RECEIVED JULY 16, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1	- L 34 +00S 0 + 50E	< .2	.66	5	6	20	< 5	.14	< 1	7	9	27	2.00	.02	20	.08	88	< 1	< .01	19	270	10	< 5	< 20	7	.05	< 10	22	< 10	8	21
2	- L 34 +00S 1 + 00E*	< .2	.77	5	8	25	< 5	2.21	< 1	6	7	13	1.23	.04	20	.19	362	< 1	< .01	16	540	10	< 5	< 20	20	.01	< 10	6	< 10	10	35
3	- L 34 +00S 1 + 50E	< .2	2.52	5	6	95	< 5	.55	< 1	18	22	13	3.79	.20	20	.51	545	< 1	< .01	39	660	16	< 5	< 20	17	.03	< 10	11	< 10	8	49
4	- L 34 +00S 0 + 00W	< .2	.71	5	4	20	< 5	.10	< 1	6	7	16	2.11	.03	20	.10	106	< 1	< .01	13	390	8	< 5	< 20	6	.04	< 10	25	< 10	6	28
5	- L 34 +00S 0 + 50W	< .2	.56	15	4	30	< 5	.11	< 1	9	11	14	2.73	.04	< 10	.19	228	< 1	< .01	13	530	12	< 5	< 20	7	.08	< 10	34	< 10	1	58
6	- L 34 +00S 1 + 00W	< .2	1.31	10	6	30	< 5	.11	< 1	9	12	17	2.79	.05	10	.19	547	< 1	< .01	13	620	10	< 5	< 20	7	.04	< 10	18	< 10	1	32
7	- L 34 +00S 1 + 50W	< .2	2.42	5	6	60	< 5	1.35	< 1	19	22	18	3.03	.17	20	.75	564	< 1	.01	35	760	12	5	< 20	38	.04	< 10	12	< 10	7	54

NOTE: < = LESS THAN
> = GREATER THAN
* = -42 MESH

CC: STEVE JENSEN
P.O. BOX 287
GREENWOOD, B.C. V0H 1J0
C/O EVENING STAR MOTEL

SC91/TECK1

ECO-TECH LABORATORIES LTD.
CLINTON AYERS
LABORATORY MANAGER

STREAM SILT

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

JUNE 24, 1991

TECK EXPLORATIONS LTD.- ETK 91-361

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PAGE 1

PROJECT NUMBER: 1703
30 SILT SAMPLES RECEIVED JUNE 19, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
361 - 1	MGM S 1	<.2	1.33	15	4	20	<5	1.60	<1	11	13	6	1.79	.05	<10	.52	260	<1	.02	15	540	10	<5	<20	82	.03	<10	10	<10	4	29
361 - 2	MGM S 2	<.2	1.89	15	4	35	<5	4.32	<1	13	17	14	2.51	.10	<10	.72	436	<1	<0.01	19	540	14	<5	<20	112	.05	<10	13	<10	5	43
361 - 3	MGM S 3	<.2	1.15	15	4	25	<5	1.17	<1	12	13	9	1.95	.07	<10	.47	351	<1	<0.01	18	550	10	<5	<20	40	.04	<10	9	<10	4	30
361 - 4	MGM S 4	<.2	2.20	15	4	40	<5	4.53	<1	11	21	10	2.07	.11	<10	.91	417	<1	<0.01	16	450	14	<5	<20	152	.05	<10	14	<10	6	36
361 - 5	MGM S 5	<.2	2.47	15	4	40	<5	3.56	<1	12	23	9	2.21	.12	<10	.93	326	<1	.04	17	700	16	<5	<20	166	.06	<10	15	<10	6	37
361 - 6	MGM S 6	<.2	1.15	15	4	20	<5	2.07	<1	12	11	10	1.95	.06	<10	.50	220	<1	<0.01	20	630	10	<5	<20	58	.03	<10	7	<10	5	29
361 - 7	MGM S 7	<.2	2.73	20	4	65	<5	3.49	<1	16	20	17	2.82	.23	10	1.10	566	<1	<0.01	25	650	10	5	<20	110	.08	<10	17	<10	12	52
361 - 8	MGM S 8	<.2	3.07	5	4	45	<5	6.60	<1	11	25	9	1.85	.16	<10	1.04	225	<1	<0.01	14	570	16	<5	<20	191	.07	<10	16	<10	6	36
361 - 9	MGM S 9	<.2	1.75	15	4	40	<5	4.60	<1	11	18	10	1.94	.14	<10	.70	288	<1	<0.01	16	510	12	<5	<20	87	.05	<10	12	<10	4	32
361 - 10	MGM S 10	<.2	1.96	20	4	40	<5	.96	<1	14	18	11	2.51	.10	<10	.52	318	<1	.01	24	510	16	<5	<20	46	.04	<10	10	<10	5	51
361 - 11	MGM S 11	<.2	2.22	15	4	45	<5	1.48	<1	16	22	13	2.73	.10	10	.73	396	<1	.04	26	590	16	<5	<20	92	.06	<10	14	<10	9	38
361 - 12	MGM S 12	<.2	1.64	10	4	30	<5	5.00	<1	11	17	9	1.82	.11	<10	.75	262	<1	<0.01	15	520	10	<5	<20	134	.04	<10	10	<10	5	32
361 - 13	MGM S 13	<.2	.59	15	4	10	<5	1.63	<1	12	8	8	1.07	.03	10	.95	214	<1	<0.01	17	470	8	<5	<20	31	.02	<10	5	<10	3	28
361 - 14	MGM S 14	<.2	1.58	15	4	30	<5	.91	<1	12	15	9	2.13	.06	<10	.51	473	<1	.03	18	570	12	<5	<20	70	.04	<10	10	<10	5	35
361 - 15	MGM S 15	<.2	1.21	15	4	30	<5	.65	<1	13	12	9	2.01	.05	10	.38	466	<1	<0.01	19	550	10	<5	<20	31	.03	<10	7	<10	6	34
361 - 16	MGM S 16	<.2	1.72	15	4	40	<5	1.62	<1	14	16	17	2.50	.09	20	.72	697	<1	.02	33	600	16	<5	<20	84	.03	<10	9	<10	12	40
361 - 17	MGM S 17	<.2	.63	15	4	20	<5	.20	<1	11	8	7	1.56	.04	<10	.24	250	<1	<0.01	16	410	6	<5	<20	9	.02	<10	6	<10	3	18
361 - 18	MGM S 18	<.2	.46	10	4	10	<5	.19	<1	12	7	8	1.66	.03	10	.20	185	<1	<0.01	19	510	4	<5	<20	7	.02	<10	6	<10	4	17
361 - 19	MGM S 19	<.2	.76	15	4	20	<5	.26	<1	12	10	9	1.80	.05	10	.29	200	<1	<0.01	20	530	8	<5	<20	10	.02	<10	5	<10	5	26
361 - 20	MGM S 20	<.2	1.12	15	4	30	<5	.85	<1	13	12	11	2.07	.07	10	.44	521	<1	<0.01	20	560	12	<5	<20	30	.03	<10	7	<10	5	33
361 - 21	MGM S 21	<.2	1.37	20	6	30	<5	.94	<1	15	13	12	2.30	.08	10	.44	312	<1	.01	24	590	14	<5	<20	41	.03	<10	6	<10	6	31
361 - 22	MGM S 22	<.2	1.11	15	6	25	<5	.50	<1	13	12	14	2.13	.06	<10	.36	361	<1	<0.01	22	440	12	<5	<20	27	.03	<10	7	<10	4	37
361 - 23	MGM S 23	<.2	1.15	15	4	35	<5	.40	<1	10	14	13	2.20	.09	10	.42	365	<1	<0.01	25	470	16	<5	<20	18	.02	<10	6	<10	5	37
361 - 24	MGM S 24	<.2	2.33	20	4	45	<5	.84	<1	24	22	20	3.93	.11	10	.75	567	<1	.04	40	700	20	5	<20	70	.04	<10	10	<10	13	58
361 - 25	MGM S 25	<.2	1.59	20	4	45	<5	.41	<1	25	15	23	2.01	.10	20	.51	625	<1	<0.01	37	810	16	<5	<20	12	.03	<10	7	<10	9	46
361 - 26	MGM S 26	<.2	1.30	20	4	40	<5	.20	<1	15	14	15	2.41	.09	20	.37	373	<1	<0.01	40	500	12	<5	<20	9	.02	<10	6	<10	21	30

ECO-TECH LABORATORIES LTD. TECK EXPLORATIONS LTD.- ETK 91-361

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
361 - 27	MGM S 27	<.2	.65	15	6	25	<5	.25	<1	18	9	12	1.96	.08	20	.26	592	<1	<0.01	24	750	6	<5	<20	7	.01	<10	4	<10	5	23
361 - 28	MGM S 28	<.2	.73	15	4	25	<5	.39	<1	16	10	14	2.19	.08	20	.33	406	<1	<0.01	20	840	8	<5	<20	9	.01	<10	4	<10	13	22
361 - 29	MGM S 29	<.2	.40	15	4	10	<5	.21	<1	19	9	11	2.24	.04	10	.23	342	<1	<0.01	23	410	6	<5	<20	7	.02	<10	7	<10	5	19
361 - 30	MGM S 30	<.2	1.19	25	4	25	<5	.37	<1	23	16	27	3.39	.06	40	.58	903	<1	<0.01	34	790	12	<5	<20	11	.02	<10	7	<10	7	39
361 - 31	MGM S 31	<.2	2.60	20	4	50	<5	1.02	<1	21	16	24	2.60	.06	40	.35	1139	<1	<0.01	31	1040	16	<5	<20	7	.03	<10	4	<10	21	42
361 - 32	MGM S 32	<.2	1.98	35	4	40	<5	.57	<1	40	29	30	5.41	.10	60	.54	732	<1	<0.01	100	850	14	<5	<20	16	.04	<10	9	<10	55	53
361 - 33	MGM S 33	<.2	1.50	20	6	40	<5	.57	<1	16	17	15	2.63	.11	10	.42	331	<1	.02	26	540	14	<5	<20	34	.04	<10	10	<10	7	40
361 - 34	MGM S 34	<.2	1.72	15	4	30	<5	.94	<1	13	18	12	2.19	.09	10	.38	294	<1	.02	29	620	20	<5	<20	45	.03	<10	8	<10	5	34
361 - 35	MGM S 35	<.2	2.00	15	4	35	<5	.93	<1	14	21	13	2.49	.11	10	.44	344	<1	.04	28	550	16	<5	<20	51	.04	<10	12	<10	5	40
361 - 36	MGM S 36	<.2	.92	15	4	25	<5	.64	<1	12	11	9	1.75	.06	10	.36	391	<1	<0.01	10	570	8	<5	<20	21	.02	<10	6	<10	4	26
361 - 37	MGM S 37	<.2	.50	15	4	15	<5	.21	<1	13	8	9	1.73	.04	10	.21	255	<1	<0.01	20	570	6	<5	<20	7	.01	<10	5	<10	5	16
361 - 38	MGM S 38	<.2	.40	15	4	15	<5	.17	<1	13	7	9	1.72	.04	10	.20	239	<1	<0.01	20	400	4	<5	<20	5	.01	<10	5	<10	4	21

NOTE: < = LESS THAN
> = GREATER THAN

ECO-TECH LABORATORIES LTD.
CLINTON AYERS
LABORATORY MANAGER

SC91/TECK2

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

TECK EXPLORATIONS LTD.- ETK 91-375

960, 175 SECOND AVENUE
KAMLOOPS, B.C.
V2C 5W1

JUNE 26, 1991

ATTENTION: FRED DALEY

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT NUMBER: 1703
11 SILT SAMPLES RECEIVED JUNE 24, 1991

ET#	DESCRIPTION	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
1 -	MGM 539	<.2	.86	15	6	25	<5	1.55	<1	16	11	14	2.52	.08	20	.47	608	<1	<0.01	25	500	16	<5	<20	13	.01	<10	4	<10	5	45
2 -	MGM 540	<.2	.72	10	8	25	<5	.21	<1	13	10	9	1.76	.07	10	.29	354	<1	<0.01	19	410	4	<5	<20	7	.01	<10	6	<10	4	17
3 -	MGM 541	<.2	.79	10	6	20	<5	.42	<1	16	11	12	2.44	.04	20	.43	566	<1	<0.01	21	610	14	<5	<20	16	.02	<10	6	<10	5	39
4 -	MGM 542	<.2	.75	15	6	15	<5	.45	<1	16	10	12	2.41	.04	20	.43	511	<1	<0.01	22	560	12	<5	<20	15	.02	<10	6	<10	4	36
5 -	MGM 543	<.2	.85	15	8	15	<5	.47	<1	19	18	14	2.46	.06	20	.43	558	<1	<0.01	28	440	10	<5	<20	8	.03	<10	8	<10	5	23
6 -	MGM 544	<.2	.79	15	6	20	<5	.49	<1	14	12	12	2.29	.05	20	.42	593	<1	<0.01	21	610	12	<5	<20	15	.02	<10	6	<10	4	30
7 -	MGM 545	<.2	.65	15	6	15	<5	.59	<1	12	9	8	2.05	.03	10	.28	283	<1	<0.01	16	410	4	<5	<20	11	.02	<10	8	<10	3	22
8 -	MGM 546	<.2	.76	10	6	15	<5	.53	<1	13	11	11	2.16	.04	20	.37	475	<1	<0.01	20	600	8	<5	<20	15	.02	<10	7	<10	5	37
9 -	TSAR 1	<.2	1.49	30	6	10	<5	.64	<1	22	24	44	3.96	<0.01	10	.90	496	<1	<0.01	37	840	12	<5	<20	5	<0.01	<10	5	<10	<1	60
10 -	TSAR 2	<.2	1.44	30	6	10	<5	.52	<1	21	23	40	3.82	<0.01	20	.86	487	<1	<0.01	35	1100	12	<5	<20	6	<0.01	<10	5	<10	<1	59
11 -	TSAR 3	<.2	.64	15	6	15	<5	.39	<1	16	11	20	2.38	.04	30	.42	619	<1	<0.01	25	710	6	<5	<20	9	.02	<10	6	<10	4	21

NOTE: < = LESS THAN
> = GREATER THAN

ECO-TECH LABORATORIES LTD.
CLINTON AYERS
LABORATORY MANAGER

APPENDIX D

Analytical Procedures

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION (STANDARD)

1. Soil or Sediment: Samples are dried and then sieved through 80 mesh sieves.
2. Rock, Core: Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.
3. Humus/Vegetation: The dry sample is ashed at 550 C. for 5 hours.

METHODS OF ANALYSIS

All methods have either canmet certified or in-house standards carried through entire procedure to ensure validity of results.

1. MULTI ELEMENT ANALYSES

(a) ICP Packages (6,12,30 element).

Digestion	Finish
Hot Aqua Regin	ICP

(b) ICP - Total Digestion (24 element).

Digestion	Finish
Hot HClO4/HNO3/HF	ICP

(c) Atomic Absorption (Acid Soluble)
Ag*, Cd*, Cr, Co*, Cu, Fe, Pb*, Mn, Mo, Ni*, Zn.

Digestion	Finish
Hot Aqua Regia	Atomic Absorption * = Background corrected

(d) Whole Rock Analyses.

Digestion	Finish
Lithium Metaborate fusion	ICP

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

2. Antimony

Digestion	Finish
Hot aqua regia	ICP

3. Arsenic

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

4. Barium

Digestion	Finish
Lithium Metaborate	ICP

5. Beryllium

Digestion	Finish
Hot aqua regia	Atomic Absorption

6. Bismuth

Digestion	Finish
Hot aqua regia	Atomic Absorption (Background Corrected)

7. Chromium

Digestion	Finish
Sodium Peroxide Fusion	Atomic Absorption

8. Flourine

Digestion	Finish
Lithium Metaborate Fusion	Ion Selective Electrode

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

9. Gallium

Digestion	Finish
Hot HClO4/HNO3/HF	Atomic Absorption

10. Germanium

Digestion	Finish
Hot HClO4/HNO3/HF	Atomic Absorption

11. Mercury

Digestion	Finish
Hot aqua regia	Cold vapor generation - A.A.S.

12. Phosphorus

Digestion	Finish
Lithium Metaborate Fusion	ICP finish

13. Selenium

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

14. Tellurium

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.
Potassium Bisulphate Fusion	Colorimetric or I.C.P.

APPENDIX E

Rock Sample Descriptions

PROJECT: MGM (1703)				DATE:		TYPE: ICP GEOCHEM		NAME:		
SAMPLE NO.	**Pb**	**Zn**	**Ag**	**LITHOLOGY & SAMPLE TYPE**	**LOCATION**	**MINERALIZATION**	**ALTERATION**	**VEINING & TEXTURES**	**STRUCTURAL ASPECTS**	**COMMENTS**
34051	128 ppm	25 ppm	1.2 g/t	Grab Siliceous fine grainged metasediment	Slightly over 500m up Tsar Creek	Pyrrhotite	Silica sericite			From boulder on Tsar Ck assumed to have come from above
34052	8 ppm	63 ppm	>.2 g/t	Grab - Rock Micaceous Limestone	NW side Tsar Creek Inlet		Rusty, strongly oxidized		Minor Folds, moderately to strongly schistose @131-65	
34062	0.4 %	0.2 %	0.6 g/t	Grab Quartz-sericite schist	L 20+00S 4+10E	Minor Galena Trace dissem. Pyrite	Silica	Waxy appearance		
34064	<2 ppm	63 ppm	0.6 g/t	Grab Choc. br. dolomite	L 20+05S 4+30E			f.g. unweathered rock cream coloured		Under uprooted tree
34086	0.76 %	0.02 %	24.4 g/t	Chip Massive sulphide zone	North side Cummins river canyon showing	Pyrite, Galena, minor Sphalerite			Zone at 140-53	
34087	0.12 %	0.13 %	2.4 g/t	Grab Pyrite layer	North Rd. showing Trench 2	Pyrite, minor Sphalerite			Rythmic py. bands up to 15cm wide @145-20	
34088	0.10 %	0.55 %	1.2 g/t	Grab Choc. br. dolomite	North Rd. showing Trench 3	Pyrite veinlets			Py. veinlets are foliation parallel	
33855	18 ppm	321 ppm	0.2 g/t	Grab Micaceous quartzite	North Rd. showing Trench 1	Minor pyrite				
33856	1978 ppm	6056 ppm	7.0 g/t	Grab Rusty to Choc. br. weathered dolomite	North Rd. showing Trench 1	Galena, Sphalerite, Pyrite			Near antiformal axis	
34092	190 ppm	1495 ppm	4.2 g/t	Choc. br. weathering dolomite	North Rd. showing Trench 4				S @150-30	

PROJECT: MGM (1703)			DATE:		TYPE: WHOLE ROCK ANALYSIS		NAME:		
SAMPLE NO.			**LITHOLOGY**	**LOCATION**	**MINERALIZATION**	**ALTERATION**	**VEINING & TEXTURES**	**STRUCTURAL ASPECTS**	**COMMENTS**
34065			Thinly laminated, siliceous Quartz-sericite schist	L 20+00S 4+10E			fine grained waxy cream coloured	Schistosity @154-35	Hanging wall
34066			Thinly laminated, siliceous Qtz-ser schist	L 20+00S 4+18.9E	Trace Galena, Sphalerite	Yellowish stain	Same as above laminated to more massively bedded	S @133-55 Mineral lineation @313-08	Hanging wall
34067			Choc. br. weathered siliceous Qtz-ser schist	L 20+00S 4+20.5E		Manganese		S @129-48	Possible dolomitic portion
34068			Garnetiferous sericite schist	L 20+00S 4+24E		Silica	thinly laminated		Pink subhedral 2-10mm sized garnets
34069			Qtz-ser schist	L 20+00S 4+37E		Silica	thinly laminated		unit much like 34065
34070			Garnet schist	L 20+00S 5+6.5E		Sericite	very friable, garnets easily freed from matrix		Footwall
34072			Grab Choc. br. dolomitic breccia	N. Side 300m up from old drill rd.	Minor Pyrite	Manganese	calcite veinlets	Bedding @35-40	drill rd. was for 1985 Esso DDH-2
34073			Qtz-ser schist	South side Cummins river				S @122-44 sericite defines fol.	Hanging wall
34075			Pyritic dolomite	South side Cummins river	Galena, pyrite bands up to 10cm wide	Silica		S @128-75	
34076			Garnet-musc schist	South side Cummins river				S @140-78	Footwall
34077			Qtz-ser schist	North side Cummins river	Minor pyrite		thinly laminated	S @136-65	Hanging wall

PROJECT: MGM (1703)			DATE:		TYPE: WHOLE ROCK ANALYSIS		NAME:		
SAMPLE NO.			**LITHOLOGY**	**LOCATION**	**MINERALIZATION**	**ALTERATION**	**VEINING & TEXTURES**	**STRUCTURAL ASPECTS**	**COMMENTS**
34078			Silicified pyritic unit	North side Cummins river	30% pyrite minor galena, sphalerite	Silica	very fine grained difficult to distinguish original lithology	S @140-53	Hanging wall
34079			Muscovite schist	North side Cummins river		Rusty oxidized unit		S @131-69	Footwall
34080			Garnet-musc schist	North side Cummins river				S @135-61	Footwall
34081			Limy Garnet schist	North side Cummins river					Hanging wall Intercalated calcareous material 1-3cm reddish brown garnets
34082			Strongly magnetic oxide zone	North Rd. showing Trench 1	Magnetite	Manganese			
34083			Micaceous Quartzite	North Rd. showing Trench 1	Pyritic bands up to 1cm in width		Laminated		Fine grained white to grey Same location as ICP sample 33855
34084			Fine grained micaceous dolomite	North Rd. showing Trench 1				well foliated S @150-30	-
34085			Brecciated Choc. br. weathering dolomite	North Rd. showing Trench 1	Pyrite, galena, sphalerite associated with Qtz veinlets	Sericite		S @284-22	
34092			Choc. br. weathering dolomite	North Rd. showing Trench 4				S @150-30	
34093			Quartz-sericite schist	North Rd. showing Trench 4			Thinly laminated	S @140-34 mineral lineation @316-06	Hanging wall

PROJECT: MGM (1703)			DATE:		TYPE: WHOLE ROCK ANALYSIS		NAME:		
SAMPLE NO.			**LITHOLOGY**	**LOCATION**	**MINERALIZATION**	**ALTERATION**	**VEINING & TEXTURES**	**STRUCTURAL ASPECTS**	**COMMENTS**
34094			Garnet schist	North Rd. showing Trench 4		Sericite	5-10mm garnets grey f.g. matrix	S @154-30	Hanging wall
PROJECT: MGM (1703)					**TYPE: GARNET WHOLE ROCK**		**NAME:**		
SAMPLE NO.			**LITHOLOGY**	**LOCATION**	**MINERALIZATION**	**ALTERATION**	**VEINING & TEXTURES**	**STRUCTURAL ASPECTS**	**COMMENTS**
TG - 1			1-1.5cm, brownish red euhedral garnets	L 33+05S 1+50W					Near Kinbasket-Tsar Creek formational boundary
CG - 1			1-3.0cm, black to brownish red subhedral to euhedral garnets	L 3+30N 2+35E					Hanging wall garnets near sulphide horizon
34063			0.5-1.0cm brownish red subhedral to euhedral garnets	L 25+75S 0+20W					Near Kinbasket-Tsar Creek formational boundary

PROJECT: MGM (1703)			DATE:				NAME:		
SAMPLE NO.			**LITHOLOGY**	**LOCATION**	**MINERALIZATION**	**ALTERATION**	**VEINING & TEXTURES**	**STRUCTURAL ASPECTS**	**COMMENTS**
34071			Waxy grey-white to yellowish Quartz-sericite schist	Cominco DDH-C-91-2 @245m depth	minor pyrite and graphite on foliation surfaces				Hanging wall
34089			Limy garnet schist	Cominco DDH-C-91-2 @223m depth					Hanging wall
34090			Dolomite Hosts sulphide horizon	Cominco DDH-91-2 @260m depth	minor sphalerite, galena and pyrite	Silica			Light grey medium grained dolomite with thinly laminated sulphides
34091			Garnet schist	Cominco DDH-91-2 @264m depth				Bedded horizon, 1-4cm width	Footwall Argilliceous component

APPENDIX F

Geophysical Instrumentation and Field Technique

Instrumentation

The MaxMin II is a continously portable horizontal loop EM system which measures in-phase and quadrature components of an induced electromagnetic field and compares them to a reference field provided by a fixed link. The Unit has frequencies of 222, 444, 888, 1777 and 3555 Hz and coil separations from 50 to 200 metres.

Field Technique

The survey was performed at two frequencies, 444 and 1777 Hz.
Coil separation was kept at 100 metres.

The coils were kept coplanar by using inclinometer chaining notes while horizontal separation was kept constant by the tight chain method. Any short cable effects were compensated for using the inclinometer data.
Data was plotted daily and presented as field plots and as a DXF computer file.

Alan Wynne
Consulting Geophysicist
Maple Services/MWH Geo-Surveys Ltd.
Sept. 11, 1991

LEGEND

SYMBOLS

- foliation
- bedding
- Trend of mineral lineations or minor fold axis (PLUNGE 18)
- angular float
- rounded float
- presumed formation contact
- trace of axial plane (ANTIFORM, SYNFORM)
- thrust fault

0 200 400 600 800 1000
metres

Gog Group

1 a. Quartzite
b. micaceous quartzite
c. marble
d. quartzofeldspathic schist to Psammite
e. pelitic interbed

Tsar Creek Formation

2 a. greywacke (turbiditic)
b. argillite
c. sericite schist
d. mica schist
e. garnet – mica schist
f. garnet – staurolite schist
g. dolomite
h. Quartz – sericite schist
i. micaceous quartzite to QFS

Kinbasket Formation

3 a. limestone
b. micaceous limestone
c. garnetiferous limestone
d. grey banded limestone (graphitic)
e. pelitic interbed
f. hornblendite

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,064

TECK EXPLORATION LTD.

MGM PROJECT

PROPERTY GEOLOGY

FIGURE 4a

SHEET 1 of 2

DATE DRAWN: SEPT 6, 1991	SCALE: 1:10,000	DWG. NAME: MGM-GEOL1
COMPILED BY: G.T./C.A	JOB No: 1703	
DRAWN BY: S.A.	NTS No: 83D/1	

LEGEND

SYMBOLS

- foliation
- bedding
- Trend of mineral lineations or minor fold axis (PLUNGE 18)
- angular float
- rounded float
- presumed formation contact
- trace of axial plane (ANTIFORM, SYNFORM)

0 200 400 600 800 1000
metres

Gog Group
1 a. Quartzite
b. micaceous quartzite
c. marble
d. quartzofeldspathic schist to Psammite
e. pelitic interbed

Tsar Creek Formation
2 a. greywacke (turbiditic)
b. argillite
c. sericite schist
d. mica schist
e. garnet – mica schist
f. garnet – staurolite schist
g. dolomite
h. Quartz – sericite schist
i. micaceous quartzite to QFS

Kinbasket Formation
3 a. limestone
b. micaceous limestone
c. garnetiferous limestone
d. grey bonded limestone (graphitic)
e. pelitic interbed
f. hornblendite

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,064

TECK EXPLORATION LTD.

MGM PROJECT

PROPERTY GEOLOGY

FIGURE 4b

SHEET 2 of 2

DATE DRAWN: SEPT 6, 1991	SCALE: 1:10,000	DWG. NAME: MGM-GEOL2
COMPILED BY: G.T./C.A	JOB No: 1703	
DRAWN BY: S.A.	NTS No: 83D/1	

Gog Group
Cummins River
CUMMINS ARM
BEND CLAIM BOUNDARY (Cominco)
C L E A R C U T
Area Covered by TRENCH MAP
BASELINE @125 Azimuth
COLUMBIA REACH
1+00N
4+00S
6+00S
8+00S
10+00S
12+00S
14+00S
16+00S
18+00S
20+00S
22+00S
24+00S
26+00S
28+00S
30+00S
32+00S
33+00S
1+00E
2+00E
3+00E
4+00E
5+00E
6+00E
7+00E
8+00E
LEGEND
SYMBOLS
foliation
bedding
Trend of mineral lineations or minor fold axis
angular float
rounded float
presumed formation contact
trace of axial plane
thrust fault
Gog Group
1 a. Quartzite
b. micaceous quartzite
c. marble
d. quartzofeldspathic schist to Psammite
e. pelitic interbed
Tsar Creek Formation
2 a. greywacke (turbiditic)
b. argillite
c. sericite schist
d. mica schist
e. garnet - mica schist
f. garnet - staurolite schist
g. dolomite
h. Quartz - sericite schist
i. micaceous quartzite to QFS
j. micaceous limestone
Kinbasket Formation
3 a. limestone
b. micaceous limestone
c garnetiferous limestone
d. grey bonded limestone (graphitic)
e. pelitic interbed
f. hornblendite
0 100 200 300 400 500
metres
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,064
TECK EXPLORATION LTD.
MGM PROJECT
PROPERTY GEOLOGY
FIGURE 5
DATE DRAWN: SEPT. 16,1991
COMPILED BY: G.T./C.A
DRAWN BY: S.A.
SCALE: 1:5000
JOB No: 1703
NTS No: 83D/1
DWG. NAME:


N
THREE MINUTE CREEK
THREE MILE CREEK
BEND CLAIMS
(COMINCO)
CUMMINS RIVER
CUMMINS ARM
Area covered by 1:5000 map
COLUMBIA
REACH
Claim Boundary
2500'
3500'
4500'
5500'
LEGEND
Samples
× Rock Geochem. (ICP)
□ Whole Rock
▽ Stream Silt
MGM 5-10 sample number
51, 16, 318 Zn, Pb, Mn in ppm
Gog Group
1 a. Quartzite
b. micaceous quartzite
c. marble
d. quartzofeldspathic schist to Psammite
e. pelitic interbed
Tsar Creek Formation
2 a. greywacke (turbiditic)
b. argillite
c. sericite schist
d. mica schist
e. garnet – mica schist
f. garnet – staurolite schist
g. dolomite
h. Quartz – sericite schist
i. micaceous quartzite to QFS
Kinbasket Formation
3 a. limestone
b. micaceous limestone
c. garnetiferous limestone
d. grey banded limestone (graphitic)
e. pelitic interbed
f. hornblendite
0 200 400 600 800 1000
metres
TECK EXPLORATION LTD.
MGM PROJECT
A.R. 22064
SAMPLE LOCATION MAP
FIGURE 13a
SHEET 1 of 2
DATE DRAWN: SEPT 6, 1991
COMPILED BY: G.T./C.A
DRAWN BY: S.A.
SCALE: 1:10,000
JOB No: 1703
NTS No: 83D/1
DWG. NAME: MGM-GEOL1

LEGEND

Samples

- × Rock Geochem. (ICP)
- □ Whole Rock
- ▽ Stream Silt

MGM S-1 sample number
29,10,260 Zn, Pb, Mn in ppm

0 200 400 600 800 1000
metres

Gog Group

1 a. Quartzite
b. micaceous quartzite
c. marble
d. quartzofeldspathic schist to Psammite
e. pelitic interbed

Tsar Creek Formation

2 a. greywacke (turbiditic)
b. argillite
c. sericite schist
d. mica schist
e. garnet – mica schist
f. garnet – staurolite schist
g. dolomite
h. Quartz – sericite schist
i. micaceous quartzite to QFS

Kinbasket Formation

3 a. limestone
b. micaceous limestone
c. garnetiferous limestone
d. grey bonded limestone (graphitic)
e. pelitic interbed
f. hornblendite

A.R. 22064

TECK EXPLORATION LTD.

MGM PROJECT

SAMPLE LOCATION MAP

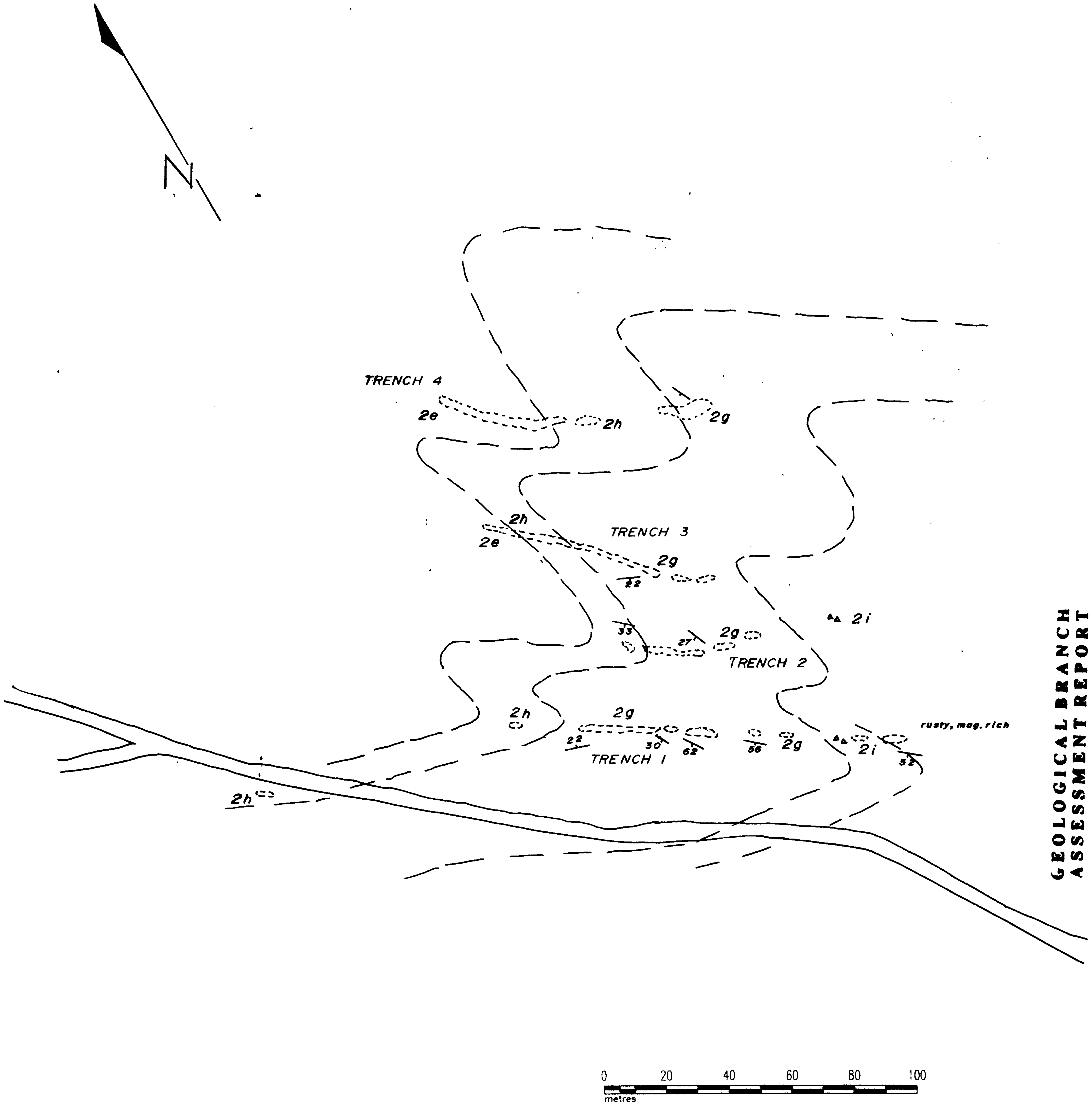
FIGURE 13b

SHEET 2 of 2

DATE DRAWN: SEPT 6, 1991	SCALE: 1:10,000	DWG. NAME: MGM-GEOL2
COMPILED BY: G.T./C.A	JOB No: 1703	
DRAWN BY: S.A.	NTS No: 83D/1	


N
Cummins River
CUMMINS
ARM
BEND CLAIM BOUNDARY (Cominco)
CLEAR CUT
BASELINE
@125 Azimuth
1+00N
4+00S
6+00S
8+00S
10+00S
12+00S
14+00S
16+00S
18+00S
20+00S
22+00S
24+00S
26+00S
28+00S
30+00S
32+00S
33+00S
8+00E
7+00E
6+00E
5+00E
4+00E
3+00E
2+00E
1+00E
COLUMBIA REACH
0 100 200 300 400 500
metres
LEGEND
× Rock Assay or ICP
□ Whole Rock
◇ Garnet Analysis
● Soil Sample
-sample numbers correspond with grid locations
TECK EXPLORATION LTD.
MGM PROJECT
SAMPLE LOCATION MAP
FIGURE 14
DATE DRAWN: SEPT. 16,1991
COMPILED BY: G.T./C.A
DRAWN BY: S.A.
SCALE: 1:5000
JOB No: 1703
NTS No: 83D/1
DWG. NAME:

A.R.22064



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,064

LEGEND

Gog Group

1 a. Quartzite
b. micaceous quartzite
c marble

Tsar Creek Formation

2 a. greywacke (turbiditic)
b. argillite
c. sericite schist
d. mica schist
e garnet – mica schist
f. garnet – staurolite schist
g. dolomite
h. Quartz – sericite schist
i. micaceous quartzite to QFS
j. micaceous limestone

Kinbasket Formation

3 a. limestone
b. micaceous limestone
c. garnetiferous limestone
d. grey bonded limestone (graphitic)
e. pelitic interbed

FIGURE 16

TECK EXPLORATION LTD.

MGM PROJECT

CUMMINS RIVER, B.C.

NORTH ROAD TRENCH MAP

DATE DRAWN: DEC 13, 1991	SCALE 1:1,000	DWG. No.
COMPILED BY: C.A.	JOB No: 1703	
DRAWN BY: C.L.	NTS No: 83D/1	


800E
600E
400E
200E
0E
200W
BASELINE 140
100N
400S
600S
1200S
1400S
1600S
1800S
2000S
2200S
2400S
2600S
2800S
3000S
3200S
3300S
0 100 200 300 400 500
metres
Instrument : MAX-MINII
Frequency : 444 Hz
In Phase :
Quadrature :
10%
0%
-10%
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,064
TECK EXPLORATION LTD.
MGM PROJECT
HLEM SURVEY
FREQ. 444 HERTZ
FIGURE 18
DATE DRAWN: AUG 2/91
COMPILED BY: A.W.
DRAWN BY: S.A.
SCALE: 1:5000
JOB No: 1703
NTS No: 83/D1
DWG. NAME:
MGM-4445

QUICK-PLOT
GEMCOM Services Inc.
HORIZONTAL SCALE = 1 : 5000

DATE = 26-05-92
TIME = 11:43:25

Teck Explorations Limited
Kamloops Office
VERTICAL SCALE = 1 : 5000

TECK EXPLORATION LTD.
HGM PROPERTY
SOIL SAMPLES Zn

ZINC
Soil Geochemistry

0 100 200
metres

FIGURE 19

QUICK-PLOT GEMCOM Services Inc.	DATE = 26-05-92 TIME = 11:50:30	Teck Explorations Limited Kamloops Office	TECK EXPLORATION LTD. MGM PROPERTY SOIL SAMPLES Pb
HORIZONTAL SCALE =	1 : 5000	VERTICAL SCALE = 1 : 5000	

LEAD
Soil Geochemistry

0 100 200
metres

FIGURE 20

QUICK-PLOT GEMCOM Services Inc.	DATE = 26-05-92 TIME = 11:32:08	Teck Explorations Limited Kamloops Office	TECK EXPLORATION LTD. MGM PROPERTY SOIL SAMPLES Mn
HORIZONTAL SCALE =	1 : 5000	VERTICAL SCALE = 1 : 5000	

MANGANESE
Soil Geochemistry

0 100 200
metres

FIGURE 21