B.C. HYDRO

MEAGER CREEK MAPPING PROGRAM - 1981

GENERATION PLANNING DEPARTMENT
SYSTEM ENGINEERING DIVISION

April 1982

ER33

Report No. SE 8209

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SUMMARY

Geological mapping was conducted over five areas at Meager Creek. These areas are designated as follows: South Fork of Meager Creek, between drill holes M6-79D and M10-80D, Southeast Reach of Meager Creek, Cirque of Cathedral Glacier on Plinth Peak and Affliction Creek. The mapping was done principally to obtain fracture orientations and to try to relate these orientations to fractures at depth. Mapping of Fall Creek was done to determine whether the cirque of Cathedral Glacier lies in an explosion crater.

Foliations are consistent only over small areas. More than one foliation is common in each area; however, the strike is almost exclusively northwest and the dip is commonly to the southwest, but the dip angle is variable.

Most faults strike north-northwest to north-northeast and dip steeply. Such prominent features as the alignment of Plinth volcanic centres and the orientation of Affliction Creek are parallel to this trend. Alteration is uncommon and usually consists of limonite, epidote and/or chlorite.

The orientation of joints is variable. The most common trend is north-northeast to northeast with dips at moderate to high angles.

The cirque of Cathedral Glacier is not an explosion crater. There is some evidence that it could be in part due to collapse, but the evidence is not definitive.

Deep-seated structures such as faults appear to be north trending. Therefore, drill holes should be oriented east-west in order to intersect the largest number of faults. Subsequent mapping and mapping by NSBG are expected to verify the importance of this trend.

B.C. Hydro is preparing a computer program that will construct equal area nets from data collected in the format illustrated in Appendix E. This format will permit selection of parts of the data for plotting based on criteria selected by the user.

1.0 INTRODUCTION

During the summer of 1981 geological mapping was conducted at several locations on and adjacent to the Meager volcanic complex (Fig.1-1). The areas were along the South Fork of Meager Creek, near drill holes M4-75D, M6-79D and M10-80D, on the southeast reach of Meager Creek, in the cirque of Cathedral Glacier on (Plinth Peak) and along Affliction Creek.

The general purpose of the mapping was to obtain fracture data and alteration patterns to correlate with information from diamond drill holes. Specifically the reason(s) for mapping in each area are summarized as follows:

1. South Fork of Meager Creek: Quartz diorite basement rocks were examined to determine if fracture orientations in these rocks differ from those closer to the volcanic complex.

2. Between drill holes M6-79D and M10-80D: The foliation in the quartz diorite was mapped to determine whether the foliation is sufficiently consistent for establishing a reference plane in drill cores from M4-75D, M6-79D, M10-80D and MCG-A.

3. Southeast Reach of Meager Creek: The geology was mapped to continue geological mapping in that area.

4. Cirque of Cathedral Glacier on Plinth Peak: Fractures and geology were mapped to determine whether or not the cirque is the remains of a crater formed during the recent eruptions on Meager Mountain.

5. Affliction Creek: The mapping was part of a concerted effort to collect stratigraphic and structural information in the north reservoir.

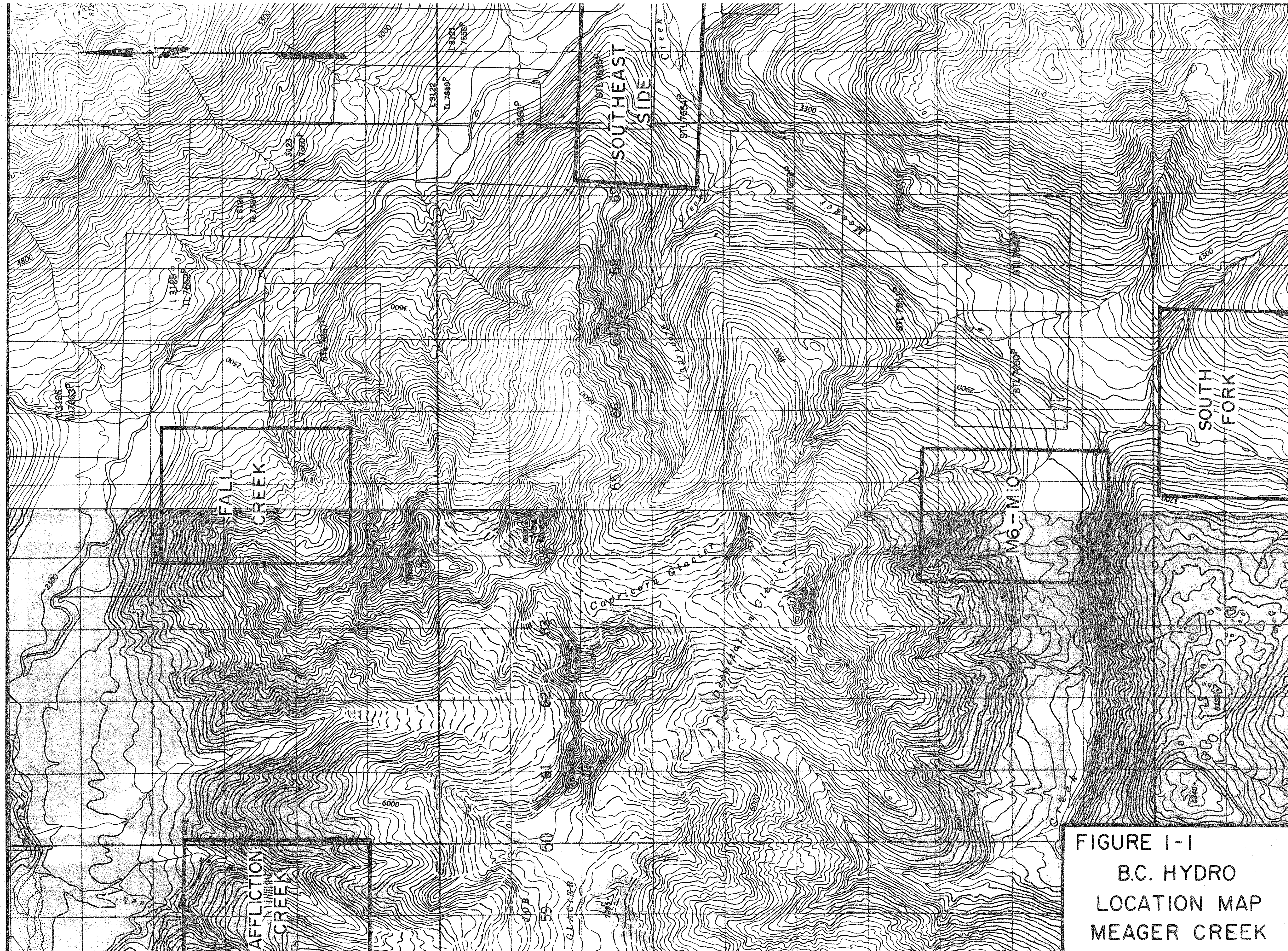
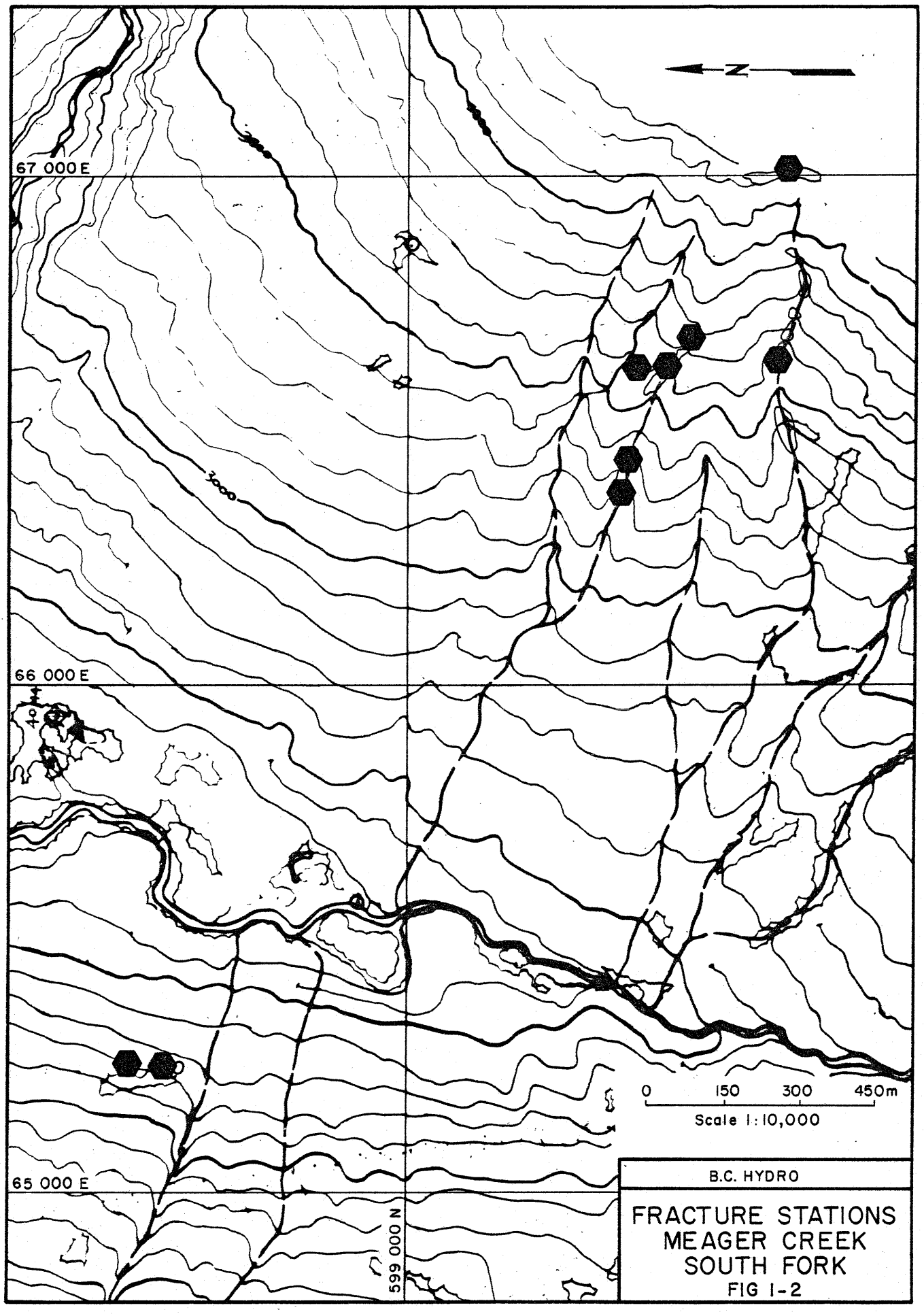


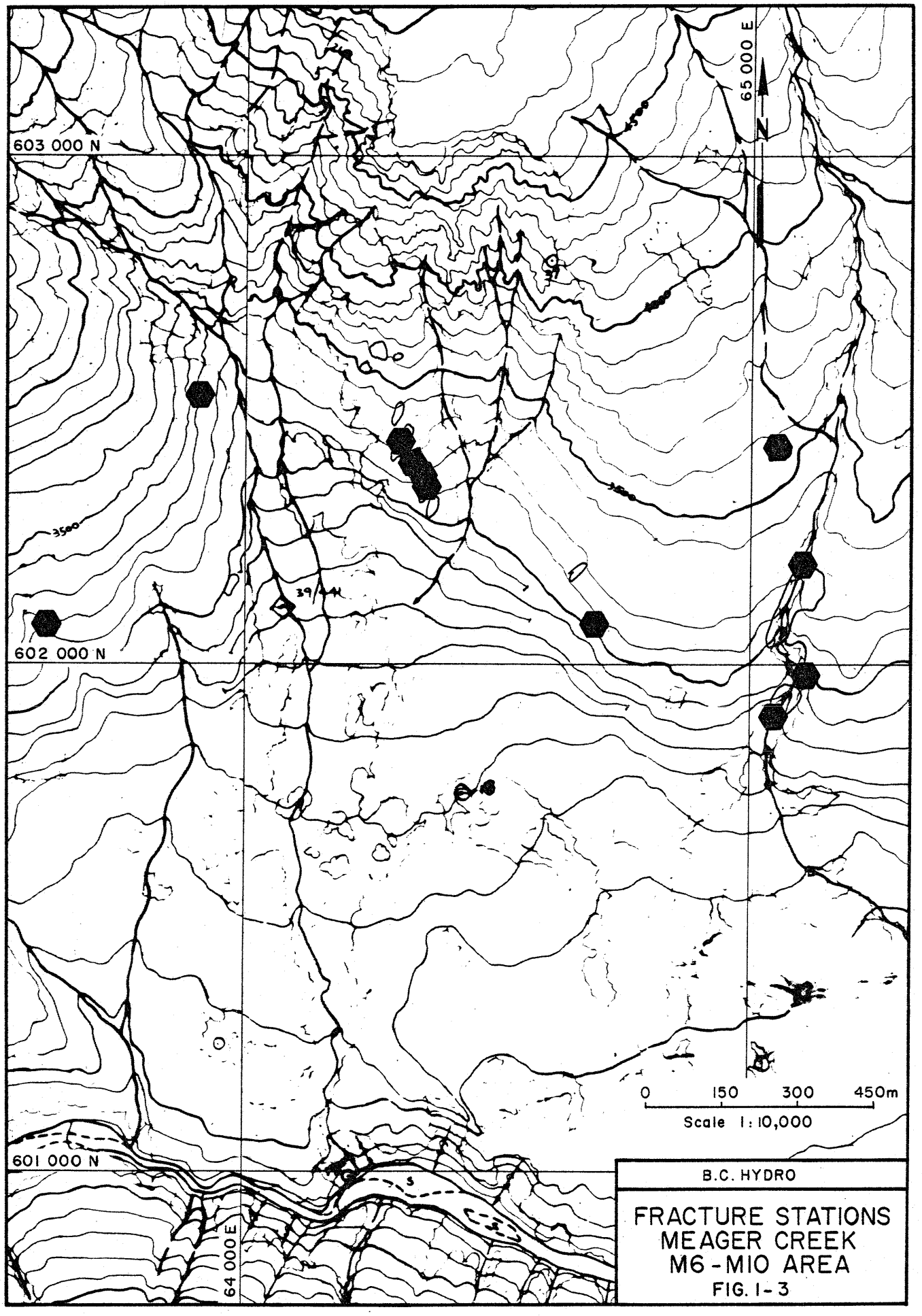
FIGURE I-1
B.C. HYDRO
LOCATION MAP
MEAGER CREEK

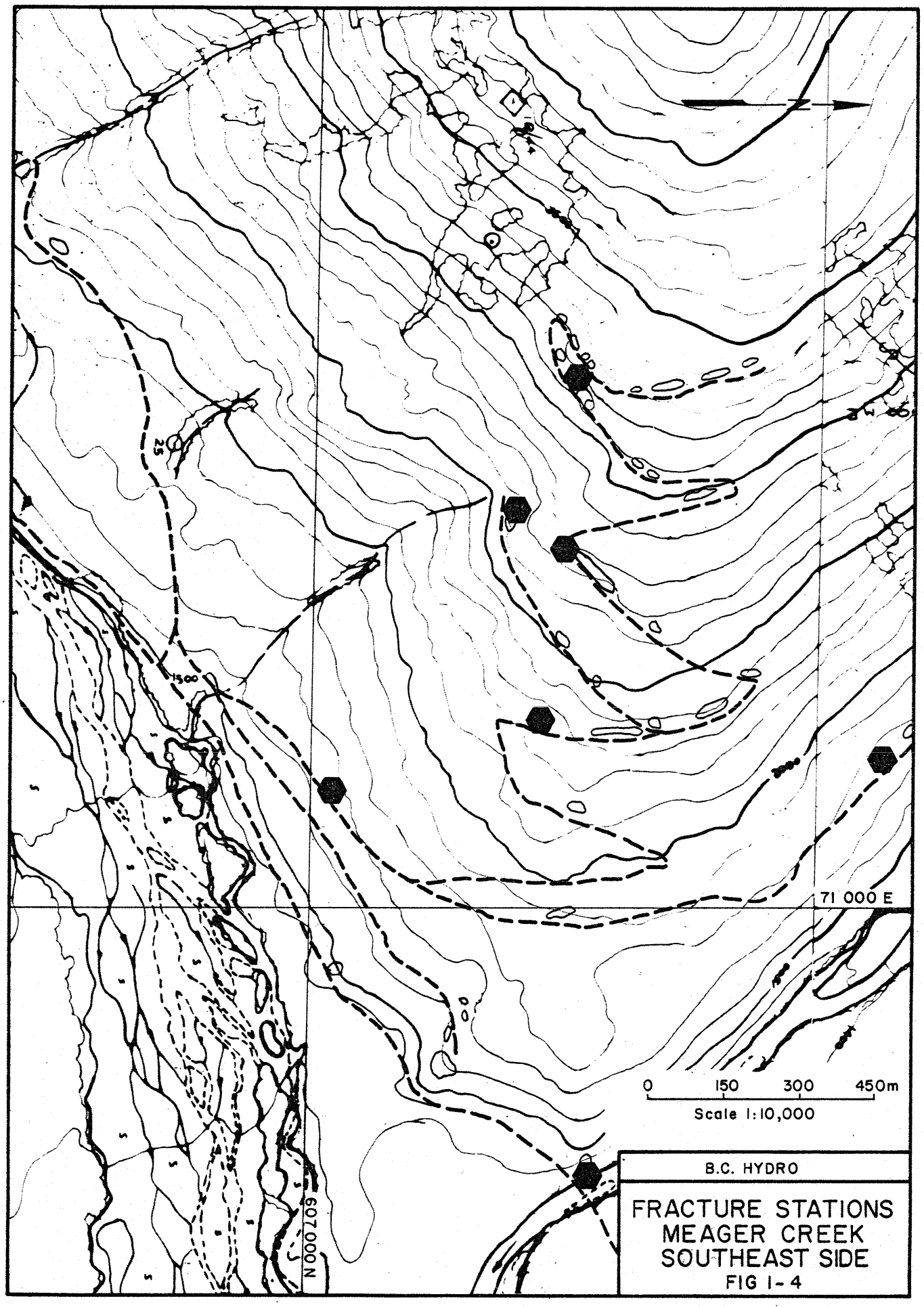
It was expected that information collected during this ongoing investigation could be used to determine dominant fracture zones that could possibly be projected to the depths of a geothermal reservoir. Once these orientations were known, together with their relative ages based on alteration patterns, the most appropriate direction for intercepting permeable fractures within a potential reservior could be determined.

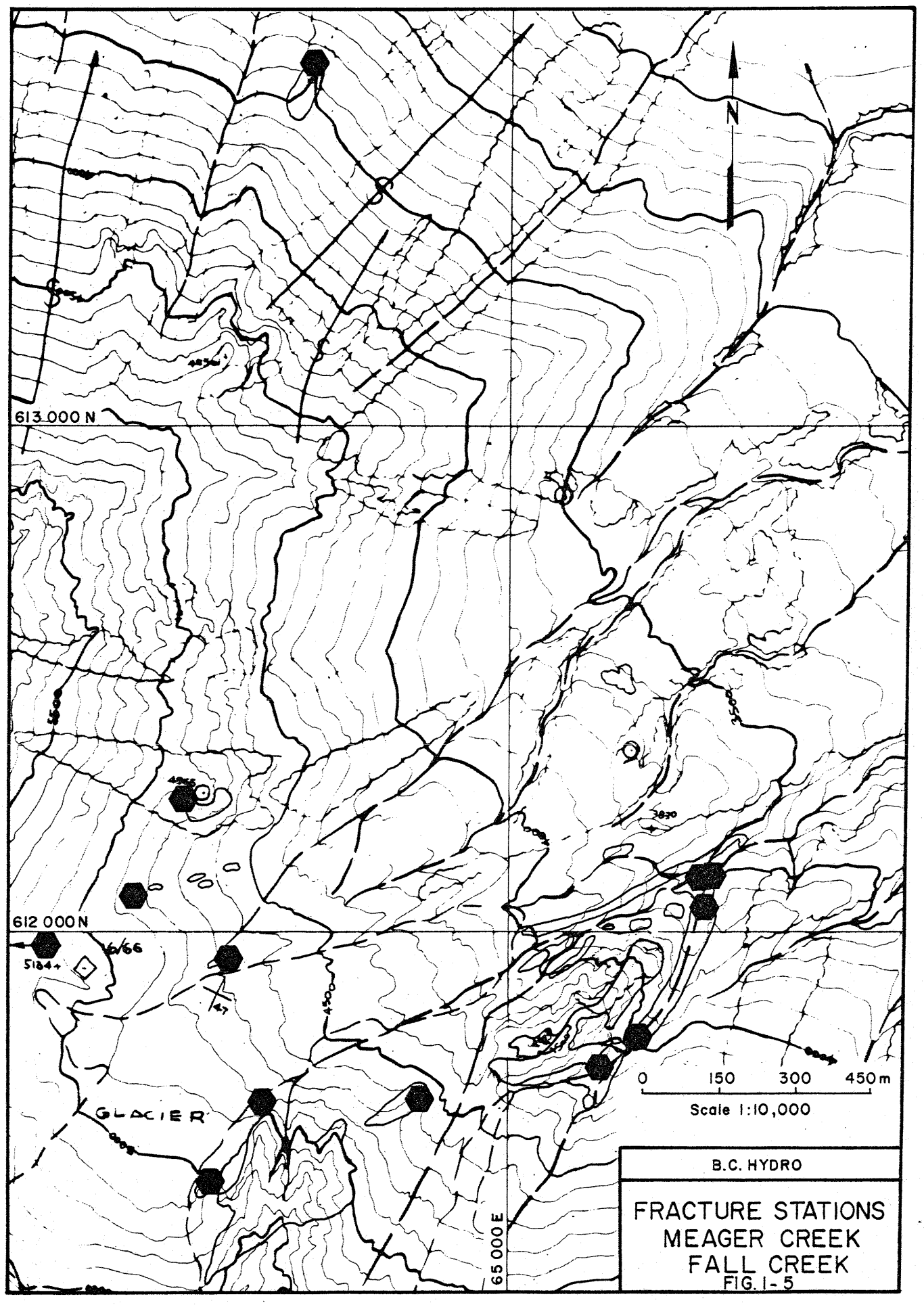
The methodology employed in mapping was to establish fracture stations along traverse lines on creeks or ridges (Figs. 1-2 to 1-6). All outcrops along the traverse lines were mapped, but fracture stations were established intermittently in order to give a satisfactory distribution within an area. Joint, fault, bedding, foliation, vein and dyke attitudes were recorded at the fracture stations. Photographs and rock samples were also obtained at most of these outcrops. The photographs were taken in order to retain a permanent record of the outcrops and illustrate the degree of fracturing. The rock samples were obtained in order to have samples for comparison, for thin sections and possibly for chemical analyses (Figs. 1-7 to 1-11). Appendix A is a listing of these rock samples. Appendix B consists of thin section descriptions of some of these rocks samples.

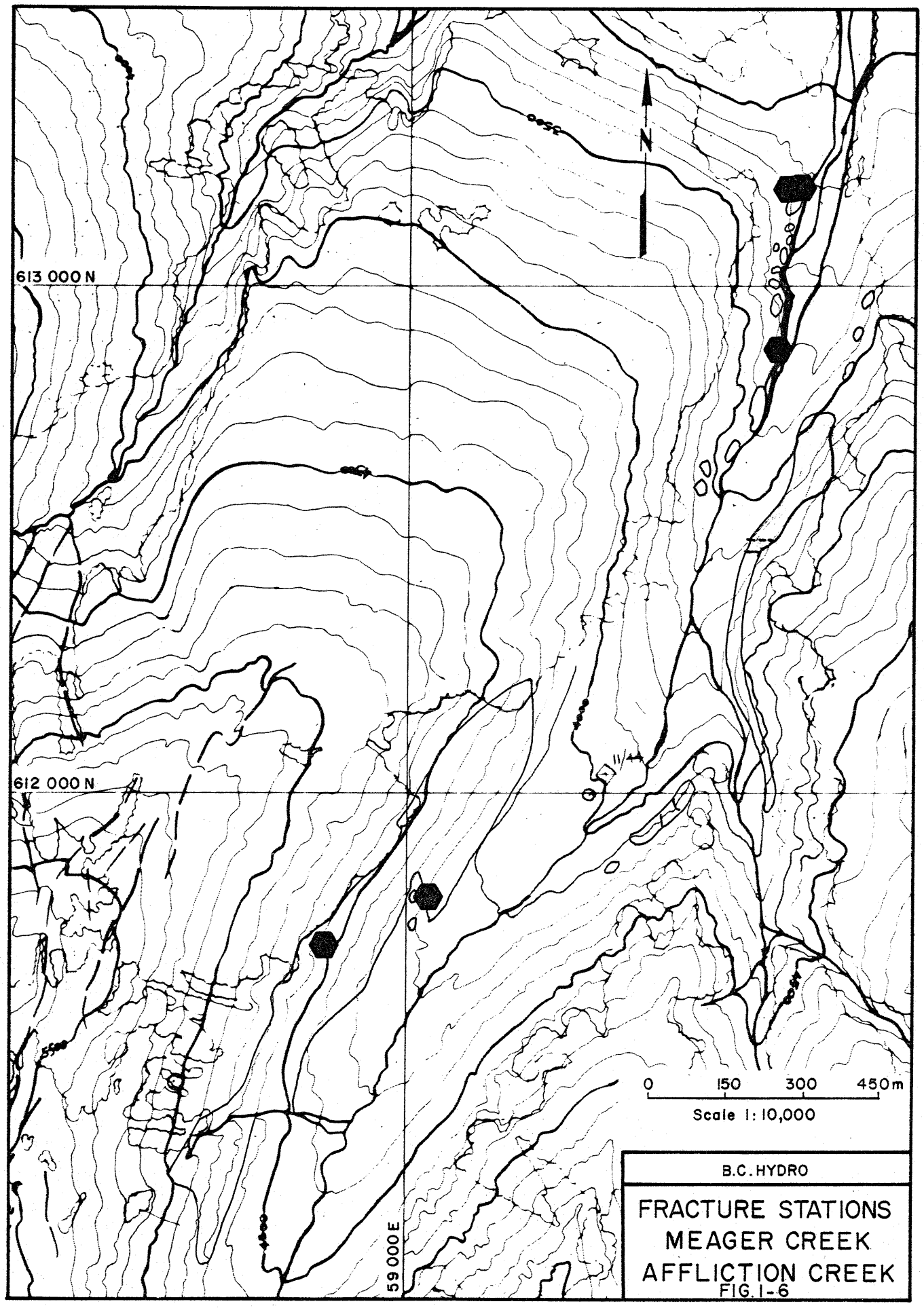
The data obtained at each fracture station included rock type, fracture attitude, fracture type, length, width, number of fractures with that orientation, spacing, regularity, waviness, roughness, alteration type and alteration intensity. This data was sent to Piteau and Associates for processing and contoured equal area nets were obtained.[1] Some co-ordinates listed in the Piteau and Associates data file required corrections and these corrections are listed in Appendix C. Appendix D consists of a summary of fracture data collected during the 1981 field season and Appendix E is a list of all of this fracture data as well as a format code for B.C. Hydro and Piteau and Associates.

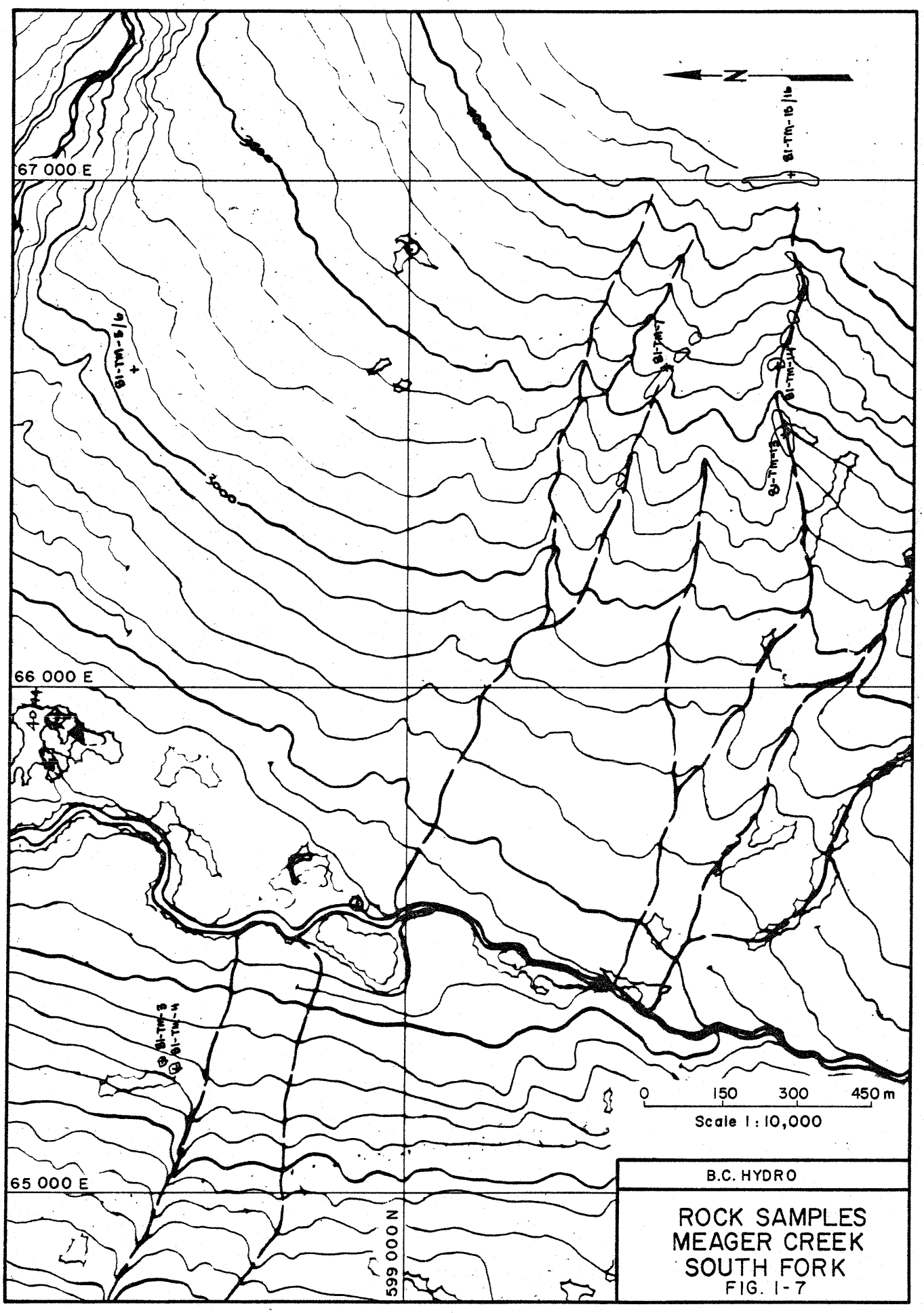

N
67 000 E
66 000 E
65 000 E
599 000 N
3000
0 150 300 450m
Scale 1:10,000
B.C. HYDRO
FRACTURE STATIONS
MEAGER CREEK
SOUTH FORK
FIG 1-2

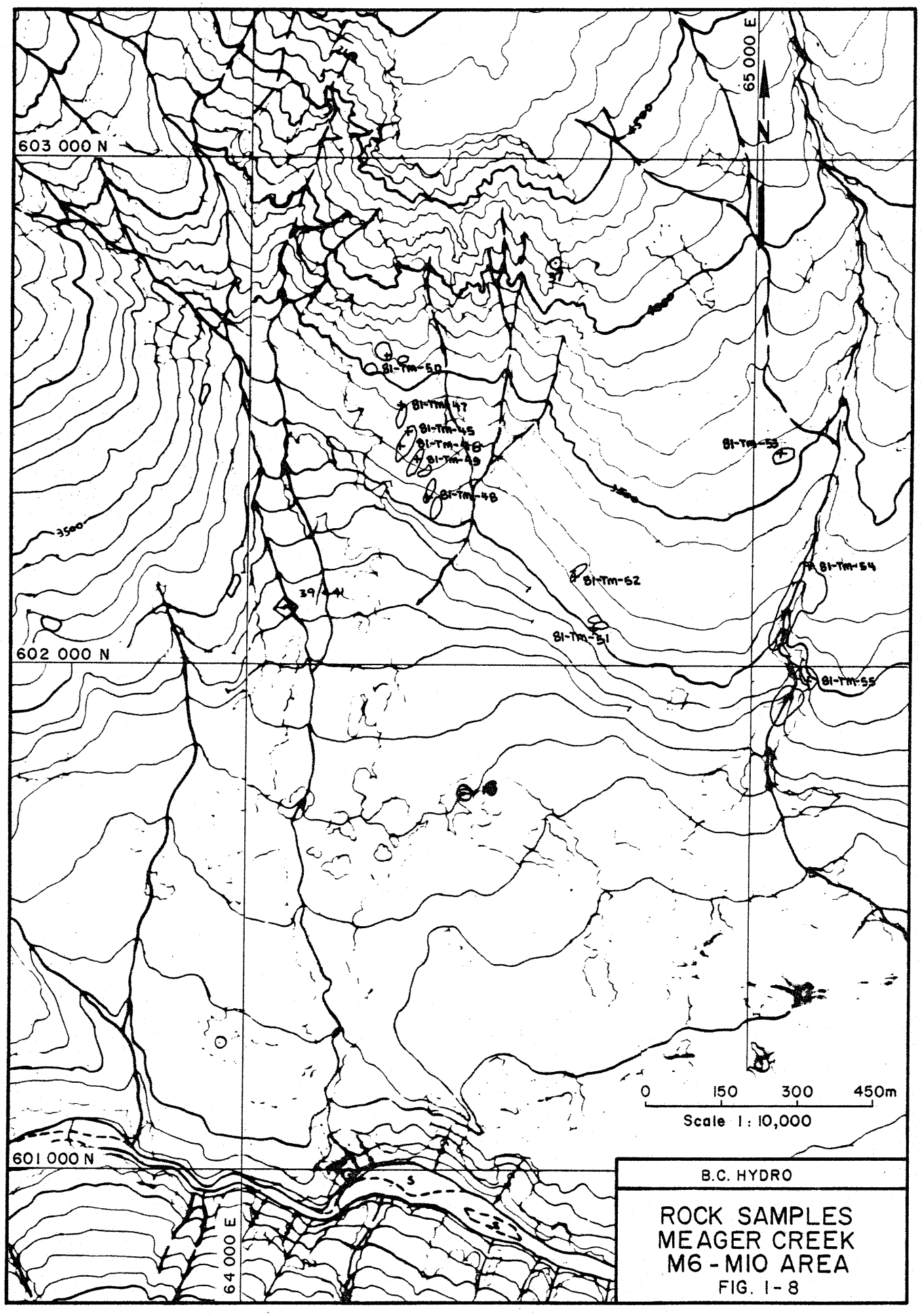

603 000 N
602 000 N
601 000 N
64 000 E
65 000 E
N
3500
3500
39/24
0 150 300 450m
Scale 1:10,000
B.C. HYDRO
FRACTURE STATIONS
MEAGER CREEK
M6-MIO AREA
FIG. 1-3

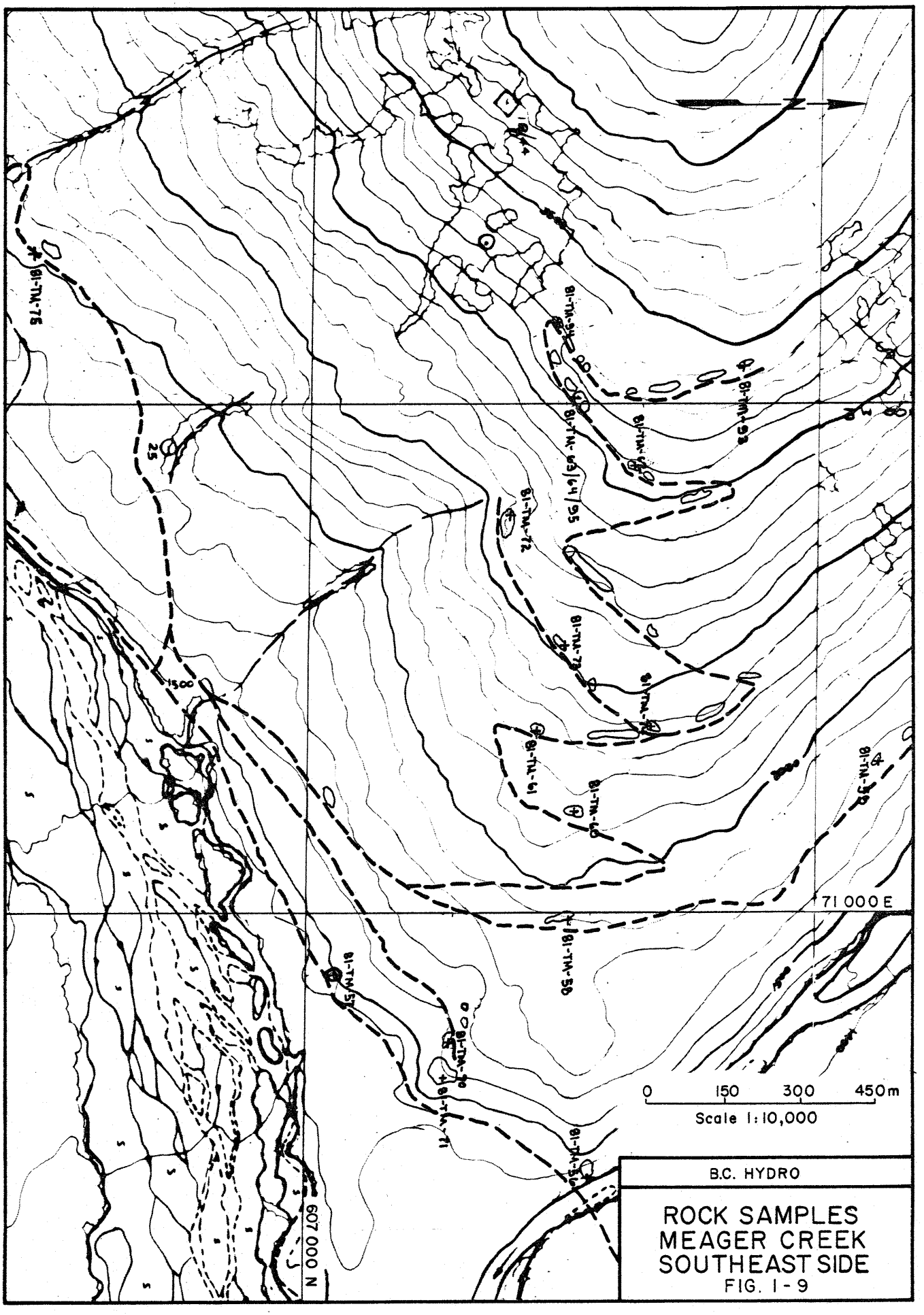

71 000 E
607000N
0 150 300 450m
Scale 1:10,000
B.C. HYDRO
FRACTURE STATIONS
MEAGER CREEK
SOUTHEAST SIDE
FIG 1-4

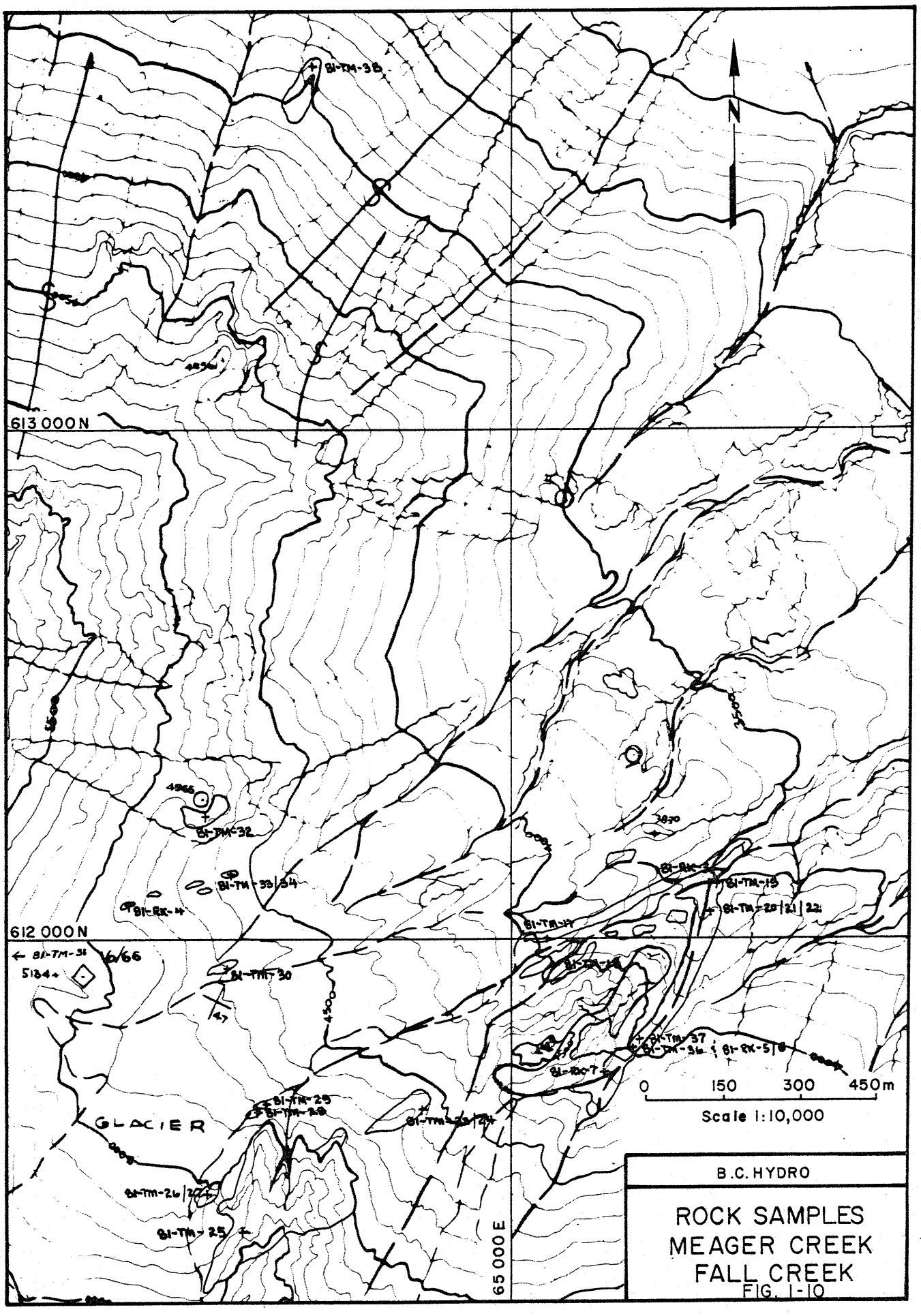

N
613 000 N
612 000 N
65 000 E
GLACIER
0 150 300 450 m
Scale 1:10,000
B.C. HYDRO
FRACTURE STATIONS
MEAGER CREEK
FALL CREEK
FIG. 1-5

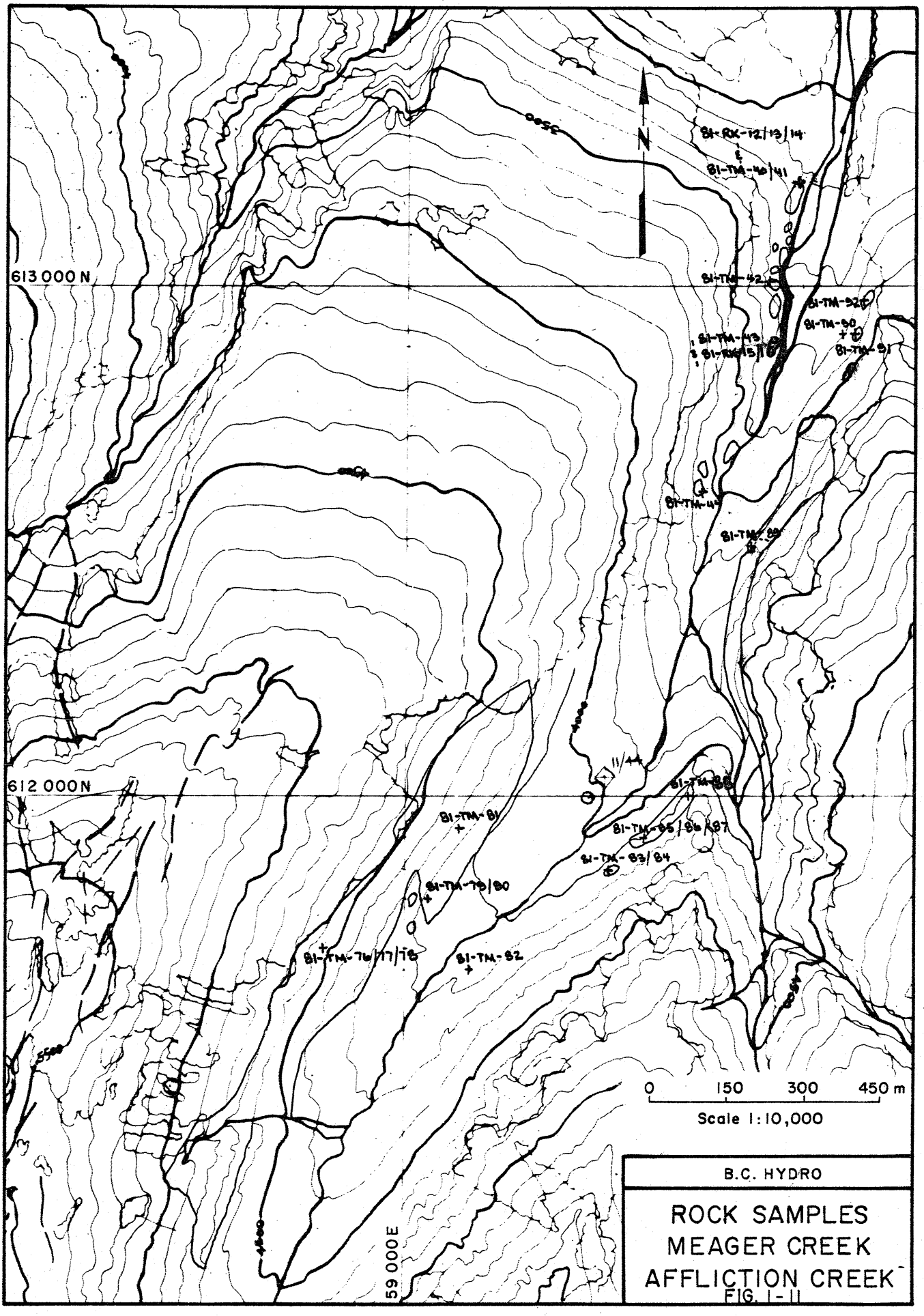

N
613 000 N
612 000 N
59 000 E
0 150 300 450m
Scale 1: 10,000
B.C. HYDRO
FRACTURE STATIONS
MEAGER CREEK
AFFLICTION CREEK
FIG. 1-6


67 000 E
66 000 E
65 000 E
69 000 N
3000
0 150 300 450 m
Scale 1 : 10,000
B.C. HYDRO
ROCK SAMPLES
MEAGER CREEK
SOUTH FORK
FIG. 1-7


603 000 N
602 000 N
601 000 N
65 000 E
64 000 E
N
Bi-Tm-50
Bi-Tm-47
Bi-Tm-45
Bi-Tm-46
Bi-Tm-49
Bi-Tm-48
Bi-Tm-53
Bi-Tm-54
Bi-Tm-52
Bi-Tm-51
Bi-Tm-55
3500
0 150 300 450m
Scale 1 : 10,000
B.C. HYDRO
ROCK SAMPLES
MEAGER CREEK
M6 - M10 AREA
FIG. 1 - 8


BI-TM-75
25
1500
BI-TM-94
BI-TM-93
BI-TM-92
BI-TM-95
BI-TM-72
BI-TM-73
BI-TM-74
BI-TM-91
BI-TM-90
BI-TM-96
BI-TM-97
BI-TM-98
BI-TM-99
BI-TM-100
BI-TM-101
71 000 E
607 000 N
0 150 300 450m
Scale 1:10,000
B.C. HYDRO
ROCK SAMPLES
MEAGER CREEK
SOUTHEAST SIDE
FIG. 1-9


N
613 000N
612 000N
65 000E
BI-TM-38
BI-TM-32
BI-TM-33|34
BI-RK-4
BI-TM-31
BI-TM-30
BI-TM-29
BI-TM-28
BI-TM-26|27
BI-TM-25
BI-TM-15
BI-TM-20|21|22
BI-TM-37
BI-TM-36
BI-RK-5|6
BI-RK-7
GLACIER
4966
5184
2830
0 150 300 450m
Scale 1:10,000
B.C. HYDRO
ROCK SAMPLES
MEAGER CREEK
FALL CREEK
FIG. 1-10


613 000 N
612 000N
59 000E
N
BI-RK-12/13/14
BI-TM-40/41
BI-TM-42
BI-TM-92
BI-TM-90
BI-TM-91
BI-TM-43
BI-RK-15
BI-TM-44
BI-TM-89
BI-TM-88
BI-TM-81
BI-TM-79/80
BI-TM-76/77/78
BI-TM-82
BI-TM-85/86/87
BI-TM-83/84
0 150 300 450 m
Scale 1:10,000
B.C. HYDRO
ROCK SAMPLES
MEAGER CREEK
AFFLICTION CREEK
FIG. 1-11

2.0 GEOLOGICAL MAPPING

(a) South Fork of Meager Creek

(i) Introduction

Three traverses were conducted adjacent to the South Fork of Meager Creek (25 June, 26 June and 8 July) in order to determine fracture orientations farther from the volcanic complex (Fig. 1-1).

(ii) Bedrock

Bedrock consists of weakly foliated, locally gneissic, biotite hornblende quartz diorite of Mesozoic Age. The quartz diorite contains numerous mafic inclusions with abundant hornblende (Fig. 2-1 and Table 2-1).[2] The foliation is variable, but it most commonly strikes approximately 060° and dips 66°SE (Table 2-2) [Table 2-2 is an interpretation of the summary of fracture data]. The contacts between the mafic inclusions and the quartz diorite matrix are commonly sharp; the inclusions are mostly elongate, and oriented parallel to the foliation, but they are occasionally circular in cross section.

Two dykes that cut the foliated quartz diorite were mapped. One of the these dykes is a fine-grained mafic quartz diorite (81-TM-15) that strikes 160° and dips 90°. A second felsic quartz diorite dyke strikes 096° and dips 55°SW.

(iii) Structure

Locally there are a few epidote, quartz-epidote, quartz, chlorite and epidote-chlorite-bearing fractures (veins). The epidote veins are bleached along their margins. These veins,

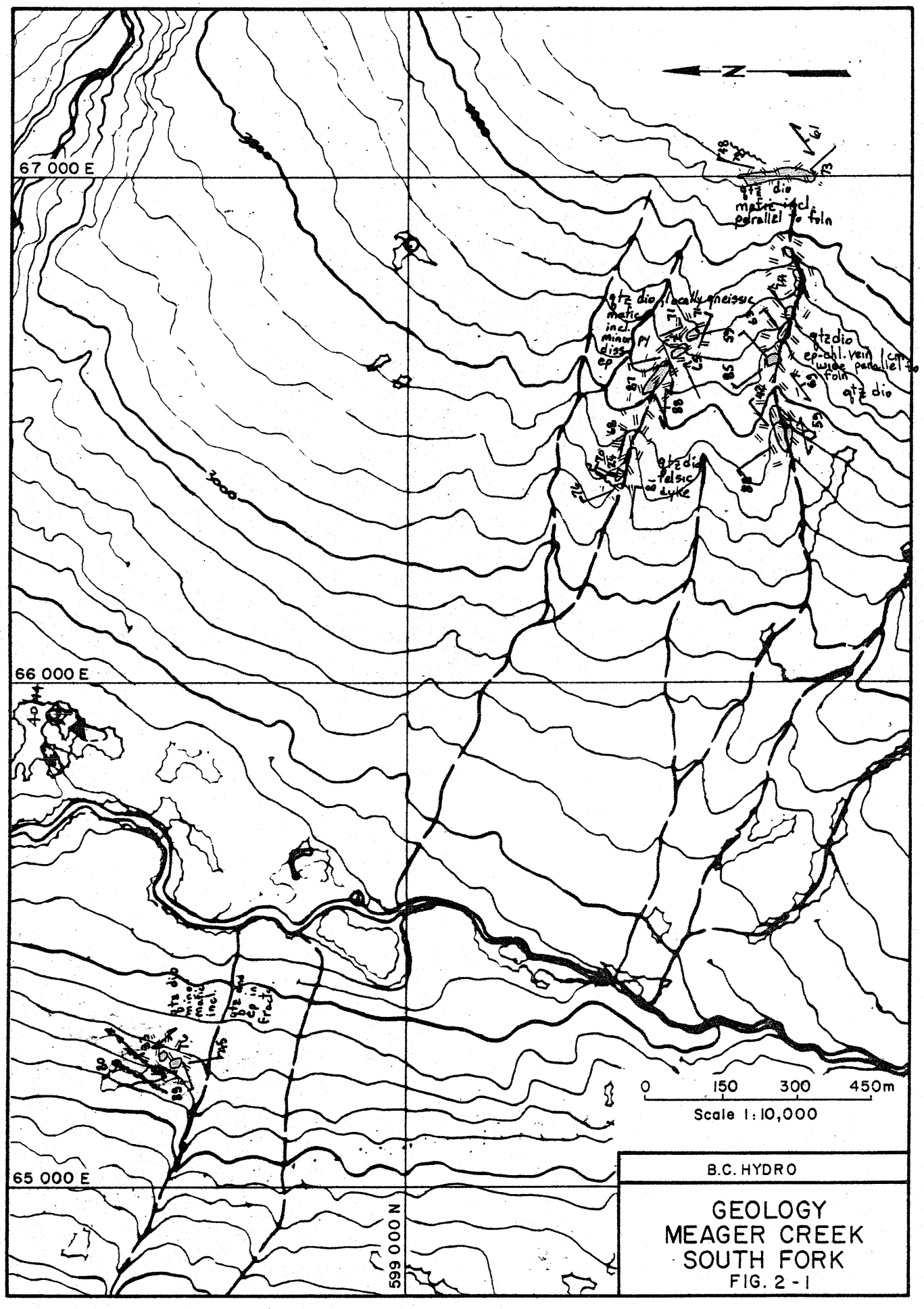
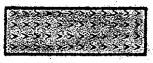

N
67 000 E
66 000 E
65 000 E
5996 000 N
qtz dio
mafic inclusions
qtz dio locally gneissic
qtz dio
epi-chl. vein 1 cm wide parallel to foln
qtz dio
qtz dio felsic dyke
0 150 300 450m
Scale 1:10,000
B.C. HYDRO
GEOLOGY
MEAGER CREEK
SOUTH FORK
FIG. 2-1

TABLE 2-1 TABLE OF FORMATIONS

CENOZOIC

RECENT – BRIDGE RIVER ASSEMBLAGE



RHYODACITE VITROPHYRE

PLEISTOCENE – PLINTH ASSEMBLAGE

RHYODACITE BRECCIA

RHYODACITE FLOWS

RHYODACITE BRECCIA AND TUFF

– PYLON ASSEMBLAGE

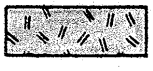
ANDESITE DYKE

PLIOCENE

BASAL BRECCIA

MESOZOIC

QUARTZ MONZONITE

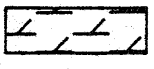


QUARTZ DIORITE

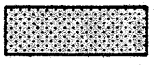
UPPER TRIASSIC(?) – CADWALLADER GROUP(?)

AMPHIBOLITE

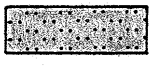
MARBLE



GREENSTONE



QUARTZITE



HORNFELS

SLATE

GNEISS

TABLE 2-2

ORIENTATIONS OF PROMINANT FRACTURES FROM 1981 MAPPING

Location	Rock	Faults*1	Foliation*1	Joints*1
South Fork	QZD	031/79NW -	060/66SE 157/74SW	059/75SE 158/86NE 000/78E 137/80NE
Southeast	QZD GRN GNS HFS	-	125/73SW	
		033/82SE	151/83SW	
	GRN HFS	023/78NW		
	GNS HFS	007/80NW		
	GRN HFS GNS			017/68NW
	MBL GNS GRN HFS			031/80SE
	GRN HFS GNS			127/73SW
	GRN MBL			160/59NE
M6-M10	GRN QZD HNF GNS		123/45SW	
	QZD GNS		082/27NW	
	GRN QZD		147/46SW	
	QZD GNS		146/71SW	

TABLE 2-2 - (Cont'd)

Location	Rock	Faults*1	Foliation*1	Joints*1
Fall Creek	QMZ HFS	135/78SW (Lin.243/50)	-	
	RYD	050/89SE		
	QMZ RYD HFS			011/89NW
	QMZ RYD HFS			123/85SW
	HFS QMZ RYD			064/42NW
	QMZ RYD			087/80SE
	RYD HFS			119/38NE
Affliction Creek	AMH	029/79SE		
	AMH	074/75SE		
	AMH	150/88SE		
	HNF QZT SLT		130/71NE	
	QZD		134/86SW	
	AMH QMZ QZD QZT GNS			059/87NW
	RYD AMH QMZ			162/70NE

*1 The orientations under each fracture type are listed in order of decreasing importance.

including bleached margins, are commonly 2.0 cm wide. The veins comprise fracture fillings that can be divided into four groups by plotting their orientations on a Wulff net. Each group comprises poles that plot on or adjacent to four great circles indicating that the fractures are related to four fold axes. These axes plunge 042° at 10°, 071° at 70°, 116° at 50° and 145° at 84°. The sets with fold axes plunging at 071° and 145° contain only epidote alteration. It appears that they are younger. The remaining sets consist of epidote, quartz-epidote and quartz veins or epidote, epidote-chorite and chlorite veins.

A few of the chlorite and epidote-bearing fractures have striations along the fracture surface. These features indicate the most recent movement. Movements on these fractures are predominantly strike-slip.

There are four prominent sets of joints in the South Fork area. These joints strike 059°, 158°, 000° and 137° and dip 75°SE, 86°NE, 78°E and 80°NE respectively (Table 2-2).

(b) Between Drill Holes M6-79D and M10-80D

(i) Introduction

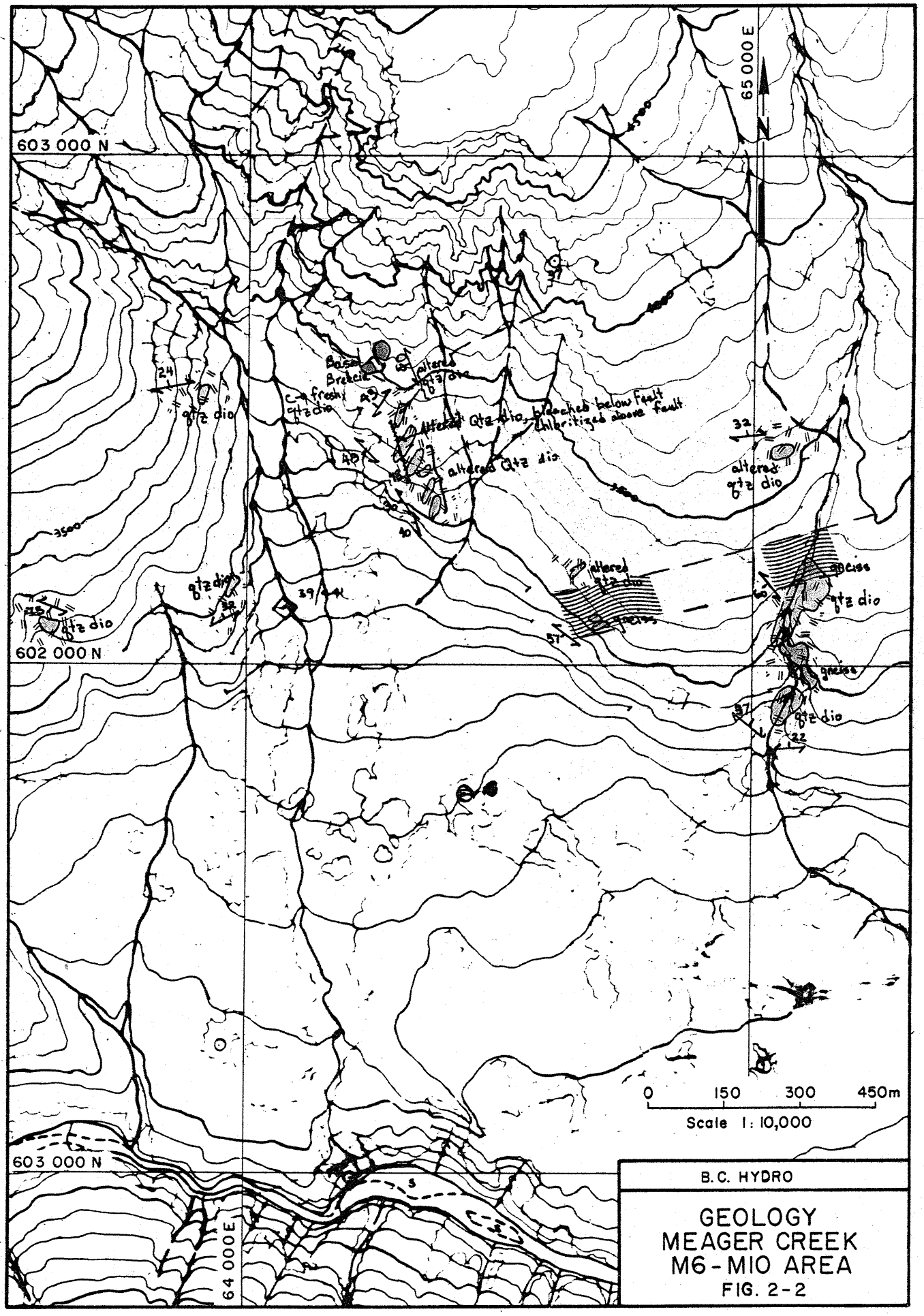
Four traverses were conducted between M6-79D and M10-80D (24 to 27 August inclusive) in order to determine the dominant attitude for foliations in the quartz diorite or in the older metasedimentary rocks (Fig. 1-1); it was expected that this (these) attitude(s) could be used to orient cores and obtain corresponding attitudes on potentially permeable zones and/or alterations encountered in the drill cores. The joints and

faults in this area were examined in 1980 by Nevin Sadlier-Brown and Goodbrand (NSBG). Therefore only foliations were examined in this study.

(ii) Bedrock

It was evident during the mapping that some large blocks of angular float, more than 10 m on a side, had rotated, but remained more or less in place. The resulting fissures have been back-filled in some cases, resulting in the incorrect assumption that the exposure was outcrop. This may be partly responsible for the variation in foliations in these rocks.

The dominant rock type is weakly foliated Mesozoic biotite hornblende quartz diorite near M4-75D, whereas the geology is significantly more complex near M6-79D (Fig. 2-2 and Table 2-1). The dominant country rocks near M6-79D are altered biotite hornblende quartz diorite gneiss and greenstone; the gneiss and greenstone are older than the foliated biotite hornblende quartz diorite and are probably part of the Upper Trassic (?) Cadwallader Group (?). The altered diorite apparently contains a laumontite (leonhardite) zone which strikes 162° and dips 48°SW, subparallel to the hillside. The zone is intensely cross fractured with 1.5 m of intensely sheared and altered diorite on the hanging wall. The laumontite zone is exposed in a gulley that trends 041° and this may be the orientation of a fault zone. The zone consists of plagioclase, laumontite, calcite and small quantities of clay alteration and quartz; there are no mafic minerals, therefore the rock is white, as well as being dense and aphanitic. The quartz diorite consists of plagioclase (An_{43}), quartz, biotite and opaques, as well as appreciable chlorite, epidote, sericite and a small quantity of clay alteration.



B.C. HYDRO

GEOLOGY MEAGER CREEK M6-MIO AREA

FIG. 2-2

The altered quartz diorite is prevalent near the basal breccia, above M6-79D, where it is moderately foliated. The altered quartz diorite is fine-grained with calcite in vugs and it is cut by epidote veins 5 cm wide that are bordered by thin, limonitic zones. Andesite dykes also cut the altered quartz diorite; these dykes contain numerous small veins of light brown alteration products and the dykes are also considerably altered.

The greenstone that was identified in the field varies in grain size such that it borders on quartz diorite at the coarse end and on hornfels at the fine end.

Gneissic rocks have a mineralogy similar to that of the foliated quartz diorite, but in the sample that was examined, mafics are more abundant. The assemblage is quartz-hornblende-plagioclase-biotite-epidote with small quantities of opaques, calcite, clay alteration and apatite. A flat-stage plagioclase determination indicates an anorthite content of An_{42}.

The gneisses locally contain some interbedded, micaceous quartzites. The gneiss grades in appearance to quartz diorite and a sample of this quartz diorite gneiss consists of the following assemblage: Plagioclase-quartz-biotite-hornblende-chlorite with small quantities of opaques, sericite, epidote and clay alteration.

The gneissic foliation is particularly well developed locally.

Above this series of outcrops and at 1030 m elevation there are outcrops of the basal breccia of Pliocene age. The breccia consists mainly of angular clasts of quartz diorite of varying sizes to a maximum of 1 m in a tuffaceous matrix.

(iii) Structure

Foliations in the M6-79D to M10-80D area are described in order of decreasing importance. The dominant foliation strikes 123° and dips 45°SW. This foliation trend is in quartz diorite and gneiss and the trend extends in a belt from outcrops north of M6-79D to outcrops north of M2-75D (Table 2-2). The second prominant foliation strikes 082° and dips 27°NW. This belt extends in two north-south zones near 64000E and near 65000E. The belts are in both quartz diorite and gneiss. A third foliation strikes 147° and dips 46°SW. This foliation has a similar distribution to the dominant foliation and it is found in outcrops consisting of quartz diorite and altered quartz diorite. The fourth foliation set consists of an east-northeast trending belt on the lower slopes of the mountain. The belt strikes 146° and dips 71°SW. The outcrops consist of quartz diorite and gneiss. There are several other foliations in this area, but they are not extensive.

These foliations are locally important, but foliations in the quartz diorite and related rocks are not consistent over extensive areas.

Slight differences are noted among dominant foliation directions if dominant rock type is used to restrict the groupings. The dominant foliations in altered quartz diorite strike 123°, 147°, 084° and 142° and dip 46°SW, 43°SW, 32°NW and 70° respectively. Outcrops of quartz diorite have considerable scatter in foliation directions, but the prominent one strikes 144° and dips 66°SW. Although the foliations in the quartz diorite are scattered the poles to the foliations lie in two zone planes trending 044° and 022° and dipping 70°SE and 66°SE

respectively. The gneiss has scattered foliations, but the dominant one strikes 125° and dips 57°SW.

Two fault zones were mapped in the altered quartz diorite. The first consists of a brecciated zone 1.5 m wide; it strikes 162° and dips 48°SW. The zone is bordered by the shattered laumontite-rich quartz diorite in the footwall. The second fault trends 022° and dips 90°; the fault is in an outcrop downslope from the large outcrop of basal breccia.

(c) Southeast Reach of Meager Creek

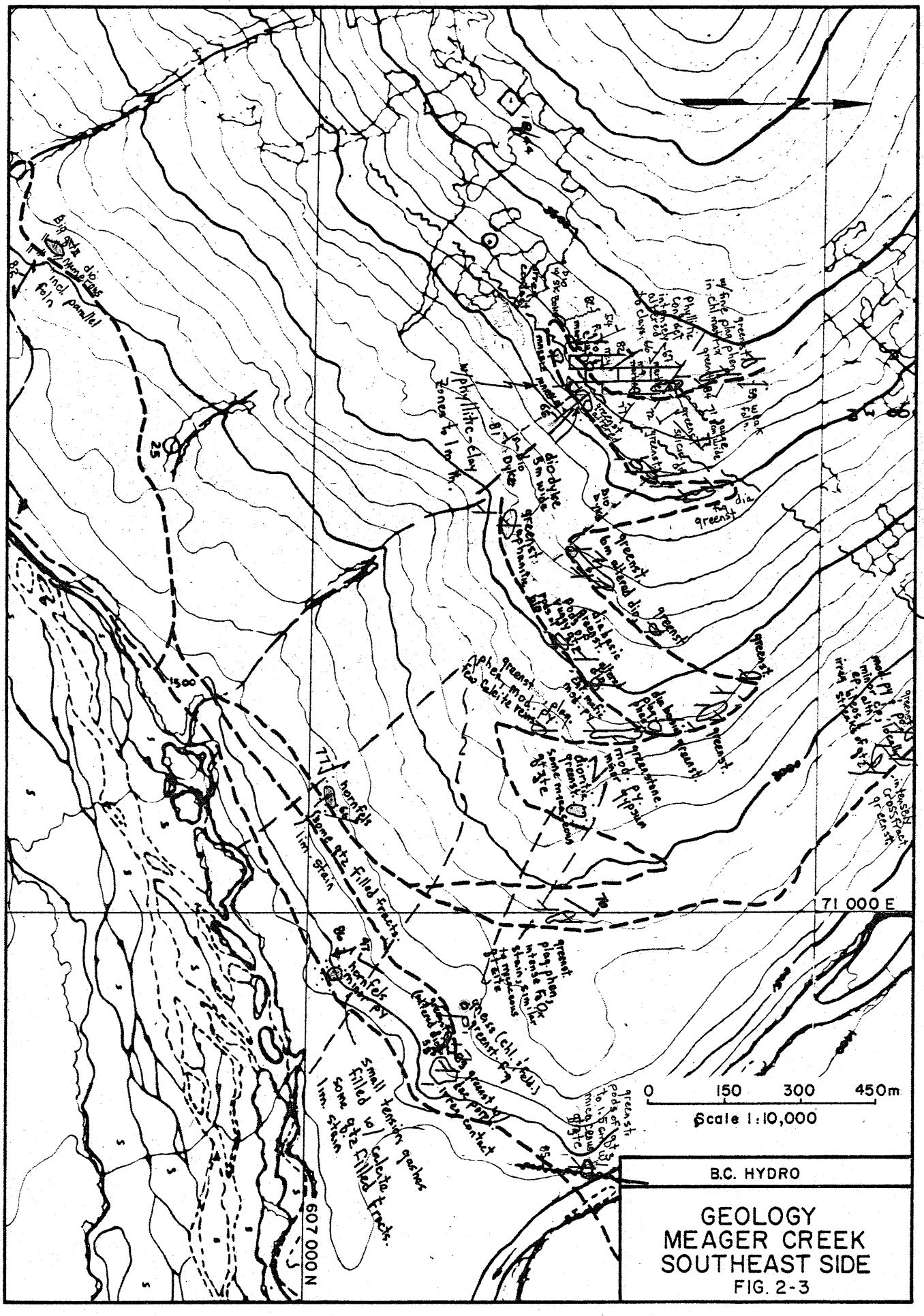
(i) Introduction

Three road traverses were conducted on the hillside, above the southeast reach of Meager Creek in order to extend geological mapping in that area (28 August, 15 September and 18 September) which is illustrated in Fig. 1-1.

(ii) Bedrock

Much of the hillside is underlain by greenstone of the Upper Triassic (?) Cadwallader Group (?). The outcrop near the Lillooet River bridge is coarser-grained and more gneissic than most and it contains blebs of rust-stained quartz as much as 1.5 cm in diameter (Fig. 2-3 and Table 2-1). The rock is well foliated and contains abundant disseminated pyrite as well as interbedded micaceous quartzite with maroon streaks. The quartzite also contains abundant pyrite as well as minor chalcopyrite.

Most of the outcrops of greenstone are dark green to almost black and porphyroblastic, with porpyroblasts of plagioclase. The outcrops have varying amounts of disseminated pyrite and


71 000 E
607 000 N
0 150 300 450m
Scale 1:10,000
B.C. HYDRO
GEOLOGY
MEAGER CREEK
SOUTHEAST SIDE
FIG. 2-3

iron oxide staining, and locally minor pyrrhotite and chalcopyrite. Irregular blebs and streaks of quartz are locally common.

In one outcrop, an altered diorite dyke, approximately 6 m wide, trending 145° and dipping steeply, cuts the greenstone. Some outcrops consist of a mixture of fine greenstone and coarser-grained greenstone with gradational and irregular boundaries.

The greenstone assemblage is typically hornblende-plagioclase-quartz-biotite with variable quantities of clay alteration and small quantities of opaques, muscovite, epidote and chlorite. The greenstones vary in texture from granoblastic to lepidoblastic. Sample 81-TM-63 has two foliations apparently at right angles (flat stage determination only). The parent rock was probably a fine-grained igneous rock based on the predominance of intensely altered plagioclase grains with sutured grain boundaries that range from 0.2 to 0.6 mm across; some have weakly developed myrmekitic intergrowths. Hornblendes range from acicular, particularly along the margins of quartz veinlets, to columnar. The assemblage is characteristic of the lower amphibolite facies, but it has undergone a slight degree of retrograde metamorphism.

The outcrop, beside the road and 0.8 km from the Lillooet River bridge, consists of black hornfels with small tension gashes filled with calcite. The rock contains minor pyrite. The hornfels is probably extensive; an additional outcrop is located on Branch 1 and a third outcrop of dark brown hornfels, with quartzose zones approaching micaceous quartzite, is also exposed on the logging road. These latter zones look like a fine-grained phase of the gneiss. The rock commonly has a weak gneissic foliation and consists of the following

assemblage: Plagioclase-quartz-epidote-biotite-hornblende-chlorite with some opaques. The foliation trends approximately 156° and dips 81°SW.

There are several outcrops of fine-grained to coarse-grained, grey to white marble; most of the outcrops are medium-grained. Within these outcrops there are numerous clay layers as much as 1.0 m thick and these layers are parallel to the bedding. The attitude of bedding in the marble is somewhat variable, but it commonly strikes 141° and dips 62°SW.

Medium-grained quartz diorite has intruded the marble and is exposed at one location. A skarn zone consisting of diopside, garnet, epidote and calcite together with a fine-grained phase of the diorite lies along the contact.

Gneiss is exposed at three locations in the area. The first outcrop is near the Lillooet River bridge and it consists of a dark green, mafic greenstone with felsic streaks providing a gneissic foliation. Although the rock is generally fine-grained, it contains coarser pods 0.6 mm across and coarser layers 0.7 to 3.1 mm across. The outcrops also contains fine-grained pods of rust-stained, maroon, streaked micaceous quartzite. There is abundant pyrite and a trace of chalcopyrite. The assemblage is quartz-hornblende-plagioclase-biotite-epidote-pyrite with minor clay alteration and calcite. The hornblende in these rocks consists of two types, columnar grains and sheaf-like aggregates of acicular grains. The dominant foliation is 099° dipping 82°SW, although two other foliations also dipping southwest are important. The second outcrop is southwest of the first outcrop; it is chloritic and well foliated, so that it is almost schistose. The third

outcrop lies adjacent to a southwest trending branch road. It contains gneissic zones with clots of biotite and vuggy quartz in a dark green greenstone.

The quartz diorite in this area is typical of the biotite hornblende quartz diorite in the basement rocks. The foliation was measured at only one location. It strikes 120° and dips 80°SW which is typical of the foliation in the greenstone and gneiss.

(iii) Structure

The foliation in the greenstone has two orientations. The dominant one strikes approximately 127° and dips 74°SW; a secondary foliation strikes 110° and dips at 90° (Table 2-2).

Faults in the greenstone trend 025° and dip 80°SE, 031° and dip 70°NW (approximately) and 164° and dip 40°NE. The first of these fault orientations is the most significant. Fault striations in the southeast Meager Creek area are generally parallel to the dip direction; however, some striations associated with the northwest dipping faults plunge 007° at 53°, whereas those associated with northeast dipping faults plunge 083° at 46°.

Four fault orientations were noted in hornfels. The dominant fault zone is in outcrop on Branch 1 where it strikes 037° and dips 83°SE; a similar orientation (029°/82°SE) is found on the Meager Main. These outcrops have secondary faults striking 024° and 008°, dipping 82°NW and 75°NW respectively.

Five attitudes were obtained on fault planes in the gneissic outcrop near the Lillooet River bridge. This fault zone trends 007° and dips 85°NW. The orientation is similar to

five lineaments (000°, 004°, 002°, 178°, 000°) determined from aerial photography on the northwest flank of Overseer Mountain, south of Meager Creek. There are also faults with this orientation in the hornfels. One fault was measured in the quartz diorite and it strikes 164° and dips 40°NE.

Four sets of joints are widespread in the southeast Meager Creek area. The most important of these sets extends over the lower slopes of the mountain and it is found predominantly in greenstone, but it is also found in hornfels and gneiss. The strike is approximately 017° and the dip 68°NW. A second set is somewhat more sporadic and it is found in greenstone, gneiss, hornfels and marble outcrops. The strike is approximately 031° and the is dip 80°SE, which is approximately parallel to the Meager Creek valley. This attitude strikes approximately parallel to a presumed fault which is required to account for the distribution of marble outcrops. Apparent movement is right lateral, a distance of approximately 115 m. A similar fault orientation was postulated to explain a resistivity anomaly in the Lillooet River valley near camp and this fault projects through the area of the presumed fault that offsets the marble.[3] A third set trends 127° and dips 73°SW, similar to the dominant foliation. A fourth set strikes 160° and dips 59°NE. It is evident that many of these joint sets may be related to anisotropies or directions of weakness that have resulted from fault movements.

(d) Fall Creek

(i) Introduction

A fly camp was established on Fall Creek and traverses were undertaken in order to determine if the cirque is the remains of an explosion crater associated with the extrusion of rocks

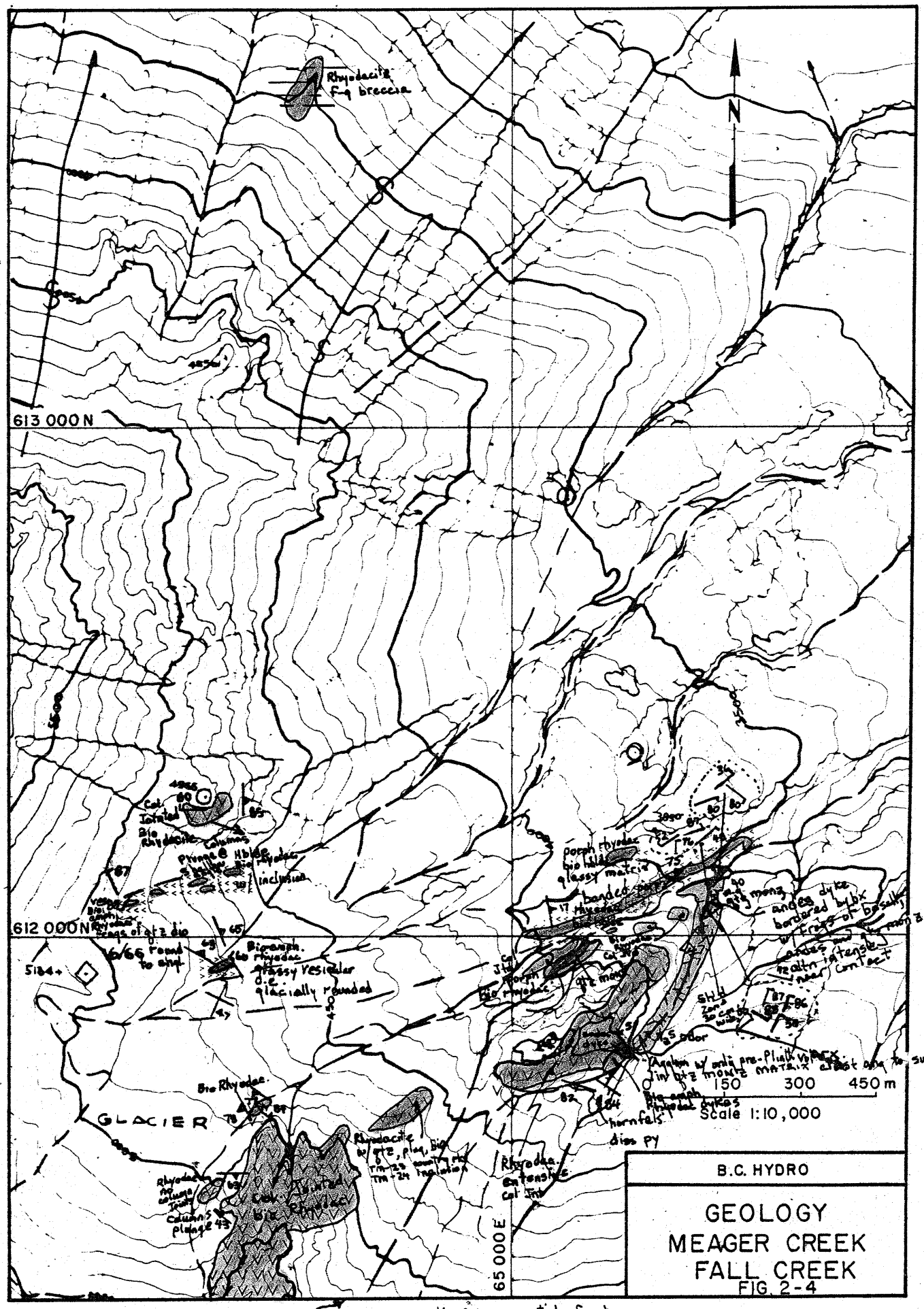
of the Bridge River Assemblage (Fig. 1-1 and Table 2-1). It was expected that such an event would have resulted in an extensive series of radial and peripheral fractures in addition to a generally intense shattering of the rock. Investigations were conducted between 10 July and 16 July.

While mapping in this region (1205 m elevation on Monzonite Creek) a perceptible odor of hydrogen sulphide was noted at 9:05 on 14 July 1981.

(ii) Bedrock

The basement rocks in the area consist of a Miocene biotite quartz monzonite stock that has intruded metasedimentary rocks (hornfels) of the Upper Triassic (?) Cadwallader (?) Group (Fig. 2-4 and Table 2-1). The hornfels is exposed on Monzonite Creek. The hornfels is typically dark grey with discontinuous, light grey, siliceous streaks. Veinlets of epidote 0.5 mm wide and layers with abundant disseminanted pyrite 2 mm across are evident. The beds strike approximately 120° and dip 83°SW. The rock is lepidoblastic with biotite and elongate quartz grains aligned along the foliation and the bedding is also transposed parallel to the foliation. The assemblage consists of quartz-biotite-plagioclase-chlorite-pyrite with clay alteration and traces of epidote, sericite, limonite and apatite.

The quartz monzonite is divided into fine-grained, medium-grained and coarse-grained varieties. The quartz monzonite was examined near the junction of Fall Creek and Monzonite Creek. The rock is medium-grained and consists of quartz, potash feldspar and plagioclase with lesser quantities of opaques, biotite, hornblende and epidote. The sample that was examined in thin section forms the matrix of a brecciated and



numerous continuous near vertical Fractures parallel to margins of cirque

shattered zone 20 m to 30 m wide. The clasts are angular to subrounded and consist of broken quartz monzonite fragments to 2 m across. The zone is cut by dykes and sills of dark green-grey biotite rhyodacite porphyry. The dykes are 1.5 m to 4 m wide and the sills extend laterally 2.5 m to 4.0 m.

A feeder dyke, 20 m wide, consists of dark grey porphyritic andesite with local areas altered to dark green. The contacts strike 142° to 157° and dip 52°SW to 59°SW on one side and 050°, dipping at 86°NW on the other. The dyke is bordered by a breccia zone 0.3 m wide and this zone contains angular fragments ranging from 1 mm to 26 cm, but commonly less than 10 cm. The fragments consist of massive basalt, dark grey, porphyritic andesite (similar to the dyke), intensely altered quartz monzonite and intensely altered red brown, porphyritic rhyodacite. The quartz monzonite is intensely altered to clay minerals along the contact with the breccia zone.

Rhyodacite is the most common rock type in the Fall Creek area. The rhyodacites belong to two groups, the Pleistocene Plinth Assemblage and the Recent Bridge River Assemblage. Five samples from the Plinth Assemblage, which is exposed around the north, west and south sides of the Fall Creek map area, were examined in thin section. These samples consist of a grey to almost black, porphyritic to glomeroporphyritic rock with phenocrysts of plagioclase (An_{28}, An_{34}) quartz, biotite and opaques, commonly with hornblende and lesser augite or enstatite and rarely with apatite and ziron. Vesicles range from nil to 3 percent. The groundmass, which is sometimes very glassy, ranges from 32 percent to 70 percent of the rock; it contains variable quantities of plagioclase microlites and crystallites. From the mineral assemblage the rocks would be classed as andesites; however, chemical analyses conducted for P.B. Read indicate that the matrix is very siliceous and

alkali-rich.[4] Therefore, the rocks are rhyodacites. The phenocrysts are evidently in disequilibrium with the groundmass. Plagioclase phenocrysts are zoned and commonly pitted and embayed; in some samples the plagioclase is intensely altered to clay minerals. Quartz phenocrysts are commonly rounded and embayed. Some samples have biotite grains that are altered dark brown along the margins; other samples also have biotite grains with ragged outlines. Hornblende grains are commonly rust-stained, some grains are intensely altered to chlorite and have corroded margins. Clusters of ragged biotite are embayed, and surrounded by smaller plagioclase, quartz and pyroxene grains; in some samples hornblende takes the place of pyroxene. In other samples there are clusters of hornblende surrounded by plagioclase, quartz and opaques. In still other samples, hornblende forms a reaction rim around enstatite. In one sample there is intensely altered zones with biotite, quartz, clay and opaques. In summary, reactions between the phenocrysts and the magma (lava) had not gone to completion before the magma (lava) solidified and the reactions effectively stopped in a state of chemical disequilibrium.

Flow layering is evident in flows from the Plinth Assemblage and from the Bridge River Assemblage (Table 2-3). The flow layering is generally down slope in the Plinth Assemblage. The layering is more erratic in the Bridge River Assemblage. The variability in the Bridge River Assemblage is perhaps due to the effects of the adjacent glacier.

(iii) Structure

Beds in the hornfels strike approximately 120° and dip 83°SW. A fault in the hornfels trends 135° and dips 73°SW (Table 2-2).

TABLE 2-3

FLOW LAYERING

Elevation (m)	Unit	Latitude	Departure	Strike	Dip
1080	Bridge River	611960	65140	170°	17°NE
				048°	75°NW
				091°	30°NE
1525	Plinth	611470	64420	087°	67°SE
				098°	70°SW
				089°	63°SE
1480	Plinth	611660	64500	140°	88°SW
				152°	78°SW
				143°	78°SW
				156°	73°SW
				117°	79°SW
				122°	77°SW
1430	Bridge River	611945	64438	156°	65°NE
				120°	63°NE
				126°	75°NE
1440	Plinth	612210	64400	178°	85°NE
1705	Plinth	611800	63730	158°	60°SW

There are several faults and sheared zones in the quartz monzonite at the junction of Fall Creek and Monzonite Creek. The largest fault consists of a sheared zone 30 cm wide striking 032° and dipping 47°SE. A series of parallel sheared zones 0.5 cm to 1.5 cm wide strike 013° and dip 87°NW. A shear 0.5 cm wide strikes 050°, dips 55°NW and it is quartz-filled; the orientation is similar to another fault that strikes 022° and dips 61°NW. A further fault plane with apparent left lateral movement of 6 m, strikes 074° and dips 49°SE.

Columnar jointing is common in the rocks of the Plinth Assemblage between Fall Creek and Monzonite Creek, along the east side of the glacier at 5300 feet (1615 m) elevation and north of the Recent lava flow at 4725 feet (1440 m) elevation. Along Monzonite Creek the columnar jointing is particularly spectacular. In this area a large, steep hillside consists of successive layers 3 to 10 m thick with coarse and fine columns. The columns are commonly bent, particularly near their tops. Layers of short columns tend to merge with longer columns. North of the Recent lava flow the columns are not as well developed as elsewhere in much of this unit. Along the east side of the glacier the columns are on their sides or they plunge at less than 45°, suggesting a steeply dipping cooling surface. They probably comprise a large dyke. These columnar jointed rocks are all very similar and consist of hornblende biotite rhyodacite.

The main joint sets in outcrops in the Fall Creek area dip into the hillside. This orientation is opposite to that expected from a sudden force applied from directly below. Such a force would be required in order to form an explosion crater. The joint sets could result from removal of support by the extrusion of lava thereby forming a collapse crater. A

few dips do trend inward toward the centre of the "cirque"; however, these dip steeply and are mainly due to scatter in the data. A few joint sets strike into the hillside, similar to radial fractures, but the trend is consistent around the "cirque" and they do not appear to be radial.

(e) Affliction Creek

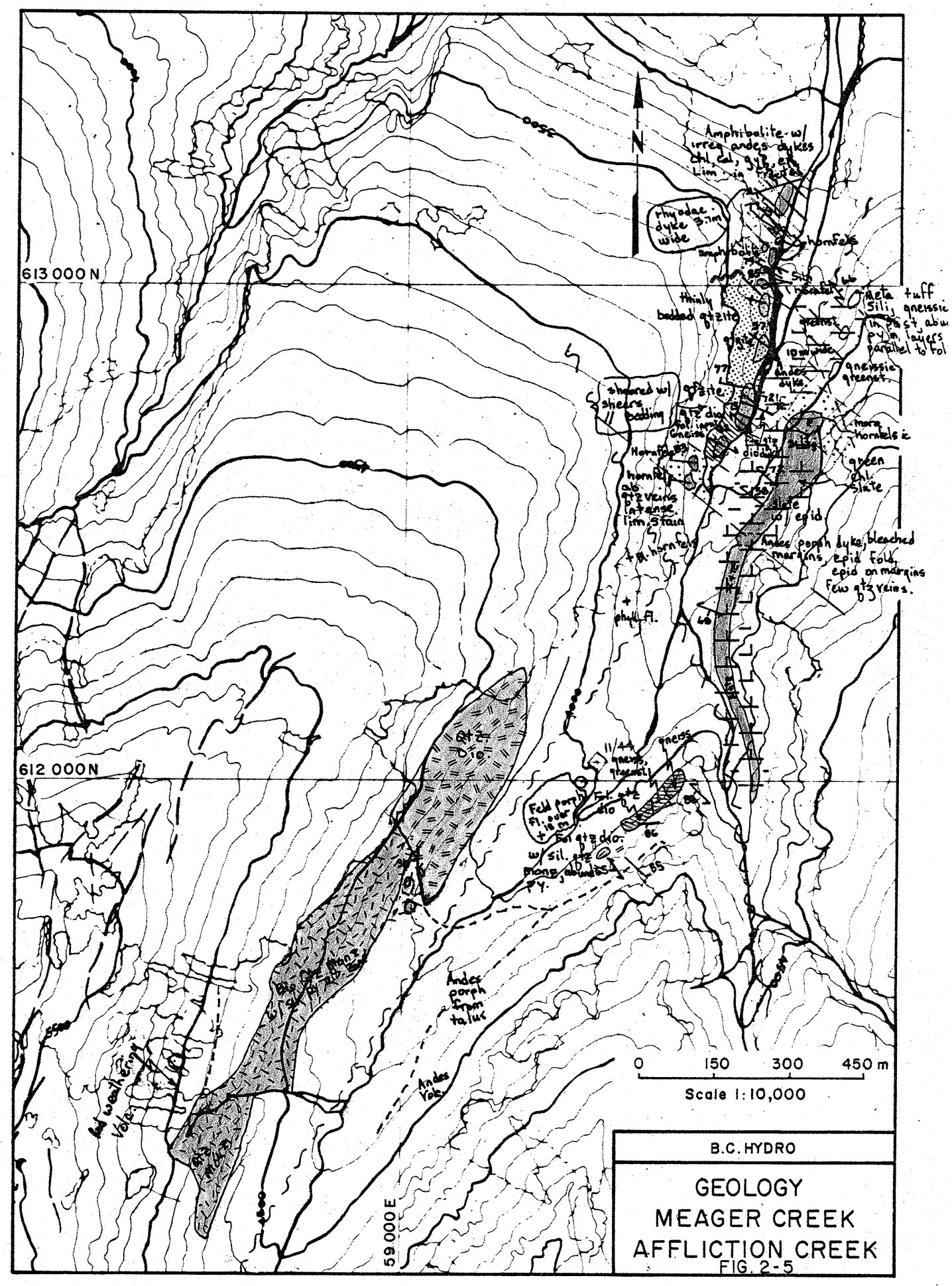
(i) Introduction

Three traverses were conducted along Affiction Creek (23 August, 16 September, 17 September) in order to supplement stratigraphic and structural information in the north reservoir (Fig. 1-1). Information on the geologic structure and stratigraphy were also collected in the adjacent valleys of Mosaic Creek and Job Creek by NSBG.

(ii) Bedrock

Basement rocks are exposed along the valley bottom on Affliction Creek, whereas andesite flows, breccia and ash of the Pylon Assemblage and olivine basalt of the Mosaic Assemblage are exposed on the ridges (Fig. 2-5 and Table 2-1). Mapping was confined to the lower slopes and the valley bottom. Metasedimentary rocks comprise a major part of the basement rocks. These rocks consist of black hornfels, quartzite, slate, phyllite and greenstone.

The black hornfels is commonly rust-stained and some outrcrops contain abundant, irregular quartz veining. Some hornfels is so siliceous that it is light grey to white. Some of the siliceous hornfels is thinly bedded and contains quartz pods,



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MEAGER CREEK
AFFLICTION CREEK

FIG. 2-5

8 cm wide, aligned parallel to the bedding. Bedding within the hornfels and the associated quartzite strikes approximately 115° and dips 75°NE.

The hornfels is commonly well bedded with white and black alternating quartz and biotite-rich lenses that range from 1 cm to more than 8 cm wide. Bedding is parallel to the foliation, which results in poorly developed slaty cleavage. The bedding tends to be wavy. The assemblage is quartz-biotite-muscovite with lesser clay alteration and opaques. The assemblage is characteristic of the greenschist facies, but it may have resulted from retrograde metamorphism, possibly from the hornblende hornfels facies. The quartz has grain boundaries in textural disequilibrium; both biotite and muscovite grains are ragged. The muscovite: biotite ratio varies between layers. Clay alteration is very fine-grained, but it is locally abundant. The grain size is generally significantly less than 1.0 mm. The hornfels is bordering on a slate.

Quartzite is common in the sedimentary sequence. It consists of thin bedded and more massive parts; some of it is intensely sheared parallel to the bedding (098°/77°NE).

Amphibolite was found in the northwest part of the Affliction Creek valley. The amphibolite is black, medium-grained and it has ragged hornblende porphyroblasts 3.9 mm across. The foliation is moderately developed and strikes 128°, dipping 74°NE, approximately the same as bedding in the adjacent hornfels. The assemblage consists of plagioclase-hornblende-quartz-biotite with opaques and minor chlorite. The hornblende porphyroblasts and biotite are randomly oriented, but fine-grained plagioclase, quartz and hornblende are moderately aligned. The hornblende porphyroblasts are

poikiloblastic; they contain numerous inclusions of plagioclase, quartz, opaques and small, ragged hornblende. The large hornblende porphyroblasts and the biotite are evidently post-tectonic. There are radiating chlorite grains in discontinuous veinlets 0.05 mm wide that cut the rock. Recrystallization has resulted in quartz triple junctions approaching 120°. The boundary between the amphibolite and the hornfels is gradational, possibly as a result of late stage metamorphism or as a result of the difficulty in distinguishing between the border phase of the amphibolite and the adjacent hornfels.

An increase in felsic minerals in some hornfelsic rock has resulted in gneisses with contacts that are gradational over 1 m and that strike 100°, dipping 87°NE, parallel to the foliation.

Phyllite is common in float near the contact between the quartz diorite stock and the metasedimentary rocks. Black hornfels float is common 100 m north of this contact.

A fine-grained quartz diorite "dyke" is exposed over 40 m. More than 30 m of this "dyke" is gneissic with the foliation and mafic inclusions aligned parallel to the hanging wall contact that strikes approximately 122° and dips 76°NE. The quartz diorite stock is exposed near the toe of the glacier. The rock is poorly foliated; the only foliation that was measured strikes 003° and dips 30°NW.

The quartz monzonite at Affliction Creek is medium-grained and contains moderate biotite. A soft, light grey, siliceous, pyritic and clayey zone lies in the quartz monzonite. This clay evidently was derived from the alteration of feldspars. This clay zone contains pods of soft, blue-grey clay. These

zones are several feet wide. The contact phase of the quartz monzonite against the quartz diorite consists of a grey dacite porphyry. Dyke rocks of feldspar porphyry were found in talus and these are apparently another fine-grained phase of the quartz monzonite; the feldspar porphyry were found over 15 m.

Greenstone is common on the east side of Affliction Creek. The greenstone grades into gneiss where felsic layers are common and into slate or hornfels where the rock is black due to abundant fine-grained hornblende and biotite. The foliation ranges from weak to a strong slaty cleavage or gneissic foliation. The foliation strikes approximately 122° and dips 78°SW in the southern part of Affliction Creek and it strikes 135° and dips 71°NE in the north.

(iii) Structure

A significant fault trending approximately 030° is believed to follow the Affliction Creek valley (Table 2-2). Left lateral displacement is possibly 250 m; the dip-slip component is unknown. There is some difficulty in correlating across Affliction Creek; the foliation is more developed on the east side of the creek. Therefore, it is not certain that the slightly foliated hornfels on the west side of the creek correlates with the slate on the east side. A number of faults in the amphibolite outcrop at the north end of the Affliction Creek valley have an average attitude that also strikes approximately 034° and dips 75°SE. These fractures are filled with chlorite, calcite, gypsum and sometimes epidote.

A second, less important fault trend strikes approximately 157° and dips 50°NE. Some small tributary creeks are subparallel to this trend. These fracture surfaces have chlorite with some limonite staining.

Numerous joint sets were noted in the Affliction Creek area. The dominant set strikes approximately 059° and dips 87°NW. A second set strikes 162° and dips 70°NE. This orientation is subparallel to a major tributary of Affliction Creek. Other important joint sets strike 014° and 136°, dipping 41°NW and 72°NE respectively.

3.0 FOLIATIONS

Foliations were measured at Affliction Creek, southeast Meager Creek, M6-79D to M10-80D and South Fork (Table 2-2). The most widespread foliation was found at each of these locations and it strikes 147° and dips 79°SW, but it is not the most important foliation at any of these sites. Faults at Affliction Creek and Fall Creek parallel this orientation. This foliation is not the most important feature controlling the disposition of volcanic centres because faults parallel to this trend are not widespread. The dip of the dominant foliation varied from region to region, but it still commonly strikes approximately 150°.

4.0 FAULTS

A conjugate set of faults is exposed at Affliction Creek and at Fall Creek (Table 2-2). One set of these faults is particularly prevalent over the area (Affliction Creek, Fall Creek, Southeast and South Fork). This set strikes approximately 030° and dips 80°SE or NW. The strike is parallel to the Affliction Creek valley. Numerous faults on the southeast side have similar trends, but they are somewhat more north-south

than this orientation; some of these latter faults are parallel to pronounced lineaments in the southeast. The second set of this conjugate pair strikes 142° and dips 83°SW, subparallel to an important foliation direction. The trend of this second set of faults is also subparallel to the alignment of volcanic centres associated with the Plinth Assemblage and to proposed faults near No Good Creek. Striations, where they have been measured on this second set of faults, are horizontal or they plunge 243° at 50°. Visible alteration along these faults is uncommon.

5.0 JOINTS

The orientation of joint sets varies appreciably from region to region and even within a single region (Table 2-2).

The dominant set at each location trends north-northeast to northeast and dips at a moderate to high angle northwest or southeast. Visible alteration associated with these joints is uncommon.

6.0 CONCLUSIONS

Foliations are only consistent over small areas and they are particularly inconsistent in the quartz diorite. More than one foliation is common in each area; however, the strike is almost exclusively northwest and the dip is commonly to the southwest, but the dip angle is variable.

The cirque of Cathedral Glacier on Plinth Peak is not an explosion crater. There is some evidence that it could be in part due to collapse, but the evidence is not definitive.

Most faults strike north-northwest to north-northeast and dip steeply. Such prominent features as the alignment of Plinth volcanic centres and

the orientation of Affliction Creek are parallel to this trend. Alteration is uncommon and usually consists of limonite, epidote and/or chlorite.

The orientation of joints is variable. The most common trend is north-northeast to northeast with dips at a moderate to high angle.

7.0 RECOMMENDATIONS

1. Deep-seated structures such as faults appear to be north trending; therefore drill holes oriented near east-west are likely to intersect the largest number of these faults.

2. B.C. Hydro has prepared a program for filing structural data according to the format illustrated in Appendix E. It is recommended that future data be collected in this format. It may also be of value to store earlier NSBG data in this data file. A program to construct Schmidt nets has been obtained and it is being modified to be compatible with B.C. Hydro's computer facilities.

8.0 REFERENCES

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2. Read, P.B. 1978. Geology Meager Creek Geothermal Area British Columbia. Geological Survey Canada. Open File Map 603.

3. Nevin Sadlier-Brown Goodbrand. 1978. Progress Report for 1977 Meager Creek Geothermal Project. Report Prepared for B.C. Hydro.

4. Read, P.B. 1982. Personal Communication.

APPENDIX A

ROCK SAMPLE LOCATIONS

ROCK SAMPLE LOCATIONS

Sample No.	Date	Location	Rock Name	Unit*[1]	Chemistry Major	Chemistry Trace	T.S.
81-TM-1							
81-TM-2							
81-TM-3	25 Jun	599556N 65248E	Quartz Diorite	Mqd			
81-TM-4	25 Jun	599486N 65248E	Quartz Diorite	Mqd			
81-TM-5	26 Jun	599547N 66627E	Quartz Diorite	Mqd			
81-TM-6	26 Jun	599547N 66627E	Mafic Inclusion (Amphibolite)	Mqd			
81-TM-7	26 Jun	598487N 66651E	Quartz Diorite	Mqd			
81-TM-8							
81-TM-9							
81-TM-10	07 Jul	602240N 67930E	Quartz Diorite	Mqd			
81-TM-11	07 Jul	602210N 67940E	Gneiss	UTRCsb			
81-TM-12	07 Jul	602560N 68120E	Quartz Diorite	LKqd			X
81-TM-13	08 Jul	598252N 66500E	Mafic Inclusion	Mqd			
81-TM-14	08 Jul	598267N 66630E	Quartz Diorite	Mqd			
81-TM-15	08 Jul	598250N 67010E	Gneiss	Mqd			X
81-TM-16	08 Jul	598250N 67010E	Quartz Diorite	Mqd			
81-TM-17	11 Jul	612000N 65070E	Rhyodacite	R4f			X
81-TM-18	11 Jul	611950N 65080E	Rhyodacite	P9f			X
81-TM-19	11 Jul	612110N 65400E	Quartz Monzonite	MqM			
81-TM-20	11 Jul	612050N 65390E	Andesite	P6i			X
81-TM-21	11 Jul	612050N 65390E	Andesite Breccia	P6i			X
81-TM-22	11 Jul	612050N 65390E	Andesite Breccia	P6i			

Sample No.	Date	Location	Rock Name	Unit*[1]	Chemistry Major	Chemistry Trace	T.S.
81-TM-23	12 Jul	611665N 64825E	Rhyodacite	P9f			
81-TM-24	12 Jul	611665N 64825E	Dacite (inclusions)	P9f			
81-TM-25	12 Jul	611425N 64470E	Rhyodacite	P9f			X
81-TM-26	12 Jul	611500N 64400E	Rhyodacite	P9f			
81-TM-27	12 Jul	611500N 64400E	Rhyodacite	P9f			X
81-TM-28	12 Jul	611660N 64500E	Rhyodacite	P9f			
81-TM-29	12 Jul	611680N 64520E	Rhyodacite	P9f			
81-TM-30	13 Jul	611945N 64438E	Rhyodacite	R4f			X
81-TM-31	13 Jul	611800N 63730E	Rhyodacite	R4f			
81-TM-32	13 Jul	612240N 64400E	Rhyodacite	P9f			
81-TM-33	13 Jul	612127N 64450E	Rhyodacite	P9f			
81-TM-34	13 Jul	612127N 64450E	Rhyodacite Inclusion	P9f			
81-TM-35	14 Jul	611785N 65240E	Rhyodacite	P7f			X
81-TM-36	14 Jul	611785N 65240E	Breccia Matrix (Monzonite)	Mqm			X
81-TM-37	14 Jul	611800N 65250E	Quartz Monzonite	Mqm			
81-TM-38	16 Jul	613710N 64607E	Rhyodacite Breccia	P9X			X
81-TM-39							
81-TM-40	23 Aug	613200N 59775E	Amphibolite	UTRCsb			X
81-TM-41	23 Aug	613200N 59775E	Andesite				
81-TM-42	23 Aug	613020N 59700E	Micaceous Hornfels	URTCsb			X
81-TM-43	23 Aug	612880N 59725E	Quartzite	UTRCv			
81-TM-44	23 Aug	612595N 59580E	Hornfels	UTRCsb			
81-TM-45	25 Aug	602485N 64270E	Quartz Diorite	Mqd			✶
81-TM-46	25 Aug	602435N 64295E	Quartz Diorite	Mqd			X
81-TM-47	25 Aug	602515N 64295E	Quartz Diorite	Mqd			X

Sample No.	Date	Location	Rock Name	Unit*[1]	Chemistry Major	Chemistry Trace	T.S.
81-TM-48	26 Aug	602330N 64350E	Greenstone	UTRCsb			
81-TM-49	26 Aug	602405N 64330E	Gneiss	UTRCsb			
81-TM-50	26 Aug	602605N 64270E	Quartz Diorite (Basal Breccia)	Mqd			
81-TM-51	27 Aug	602070N 64670E	Gneiss	UTRCsb			
81-TM-52	27 Aug	602175N 64630E	Quartz Diorite	Mqd			
81-TM-53	27 Aug	602440N 65050E	Quartz Diorite	Mqd			
81-TM-54	27 Aug	602200N 65110E	Gneiss	UTRCsb			
81-TM-55	27 Aug	601970N 65110E	Quartz Diorite	Mqd			X
81-TM-56	28 Aug	607560N 71530E	Gneiss	UTRCv			X
81-TM-57	28 Aug	607060N 71125E	Hornfels	UTRCv			X
81-TM-58	28 Aug	607520N 71020E	Greenstone	UTRCv			
81-TM-59	28 Aug	608125N 70705E	Greenstone	UTRCv			X
81-TM-60	28 Aug	607520N 70800E	Greenstone	UTRCv			X
81-TM-61	28 Aug	607450N 70640E	Greenstone	UTRCv			
81-TM-62	28 Aug	607650N 70110E	Greenstone	UTRCv			
81-TM-63	28 Aug	607515N 69990E	Greenstone	UTRCv			X
81-TM-64	28 Aug	607515N 69990E	Marble, Diorite, Skarn	UTRCc			
81-TM-65							
81-TM-66							
81-TM-67							
81-TM-68							
81-TM-69							
81-TM-70	15 Sep	607290N 71260E	Greenstone	UTRCv			
81-TM-71	15 Sep	607270N 71320E	Diorite	UTRCv			
81-TM-72	15 Sep	607390N 70215E	Greenstone	UTRCv			
81-TM-73	15 Sep	607500N 70470E	Greenstone	UTRCv			
81-TM-74	15 Sep	607675N 70635E	Diorite	UTRCv			

Sample No.	Date	Location	Rock Name	Unit*1	Chemistry Major	Chemistry Trace	T.S.
81-TM-75	15 Sep	606450N 69705E	Quartz Diorite	Mqd			
81-TM-76	16 Sep	611700N 58835E	Quartz Monzonite	Mqm			
81-TM-77	16 Sep	611700N 58835E	Dacite Porphyry	Mqm			
81-TM-78	16 Sep	611700N 58835E	Dacite Porphyry	Mqm			
81-TM-79	16 Sep	611800N 59045E	Quartz Diorite	Mqd			
81-TM-80	16 Sep	611800N 59045E	Quartz Diorite	Mqd			
81-TM-81	16 Sep	611935N 59105E	Quartz Monzonite	Mqm			
81-TM-82	17 Sep	611660N 59125E	Andesite	P3f			X
81-TM-83	17 Sep	611855N 59400E	Andesite	P3X, P3f			
81-TM-84	17 Sep	611855N 59400E	Quartz Diorite	Mqd			
81-TM-85	17 Sep	611920N 59470E	Quartz Monzonite	Mqm			
81-TM-86	17 Sep	611920N 59470E	Quartz Monzonite	Mqd			
81-TM-87	17 Sep	611920N 59470E	Gneiss	UTRCsb			
81-TM-88	17 Sep	612000N 59555E	Gneiss	UTRCsb			
81-TM-89	17 Sep	612490N 59675E	Andesite	UTRCv			
81-TM-90	17 Sep	612910N 59850E	Gneiss	UTRCsb			
81-TM-91	17 Sep	612910N 59875E	Greenstone	UTRCsb			
81-TM-92	17 Sep	612980N 59900E	Gneiss	UTRCsb			
81-TM-93	18 Sep	607855N 69935E	Greenstone	UTRCv			
81-TM-94	18 Sep	607485N 69865E	Diorite	Md			
81-TM-95	18 Sep	607515N 69990E	Metatuff	UTRCv			
81-RK-1							
81-RK-2							
81-RK-3	11 Jul	612110N 65390E	Quartz Monzonite	Mqm			
81-RK-4	13 Jul	612065N 64250E	Rhyodacite	P9f			
81-RK-5	14 Jul	611785N 65240E	Rhyodacite	P9f			

Sample No.	Date	Location	Rock Name	Unit*1	Chemistry Major	Chemistry Trace	T.S.
81-RK-6	14 Jul	611785N 65240E	Breccia (Mafrix)				
81-RK-7	14 Jul	611735N 65180E	Hornfels	UTRCp			X
81-RK-8	16 Jul	614860N 64700E	Rhyodacite Frag.	QC1			
81-RK-9	16 Jul	614860N 64700E	Slide Debris (Mafrix)	QC1			
81-RK-10	16 Jul	614460N 64320E	Rhyodacite	P9f			
81-RK-11	16 Jul	614370N 64080E	Pumice	R1			
81-RK-12	23 Aug	613200N 59774E	Rhyodacite				
81-RK-13	23 Aug	613200N 59775E	Amphibolite	UTRCsb			
81-RK-14	23 Aug	613200N 59775E	Rhyodacite				
81-RK-15	23 Aug	612880N 59725E	Andesite				X
81-RK-16	23 Aug	612880N 59725E	Gneiss	UTRCsb			

Note: *1 For explanation of symbols, see Ref. 2.

APPENDIX B

THIN SECTION DESCRIPTIONS

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-12 LOCATION: East of Meager Hot Springs (El. 770 m)

ROCK NAME (FIELD): Biotite Hornblende Quartz Diorite (Spidery Creek Pluton)

MEGASCOPIC DESCRIPTION:

Black and white, mottled, medium-grained equigranular rock consisting of 50 percent plagioclase, 15 percent quartz, 20 percent hornblende and 15 percent biotite. Hornblende grains are clustered into pods 2 to 9 mm long; individual grains are 1.1 mm long; plagioclase grain sizes are similar.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Phaneritic, medium-grained, equigranular.

Mineral Descriptions:

Plagioclase: 67 percent - anhedral, grains 0.3 to 3.0 mm, most grains have well developed albite or Carlsbad-albite twins, other twins are broken and grains deformed; most are fresh, but many are altered to sericite along cleavages and a few are altered at the cores; some have inclusions of hornblende and biotite; An_{29}.

Hornblende: 8 percent - anhedral, two ages of hornblende, $\gamma \wedge z = 15°$; pleochroism on Y is green to yellow; twinning on (100); cores of some hornblende and some matrix grains contain blebs of hornblende and other inclusions parallel to the cleavage; larger grains, as much as 0.9 mm, are partly interstitial or are overgrowths not in optical continuity; smaller grains, 0.4 mm across, have inclusions of plagioclase, quartz and opaques; maximum birefringence is first order blue (0.022) in the cores; minor iron oxide stain.

Biotite: 10 percent - ragged grain boundaries, flakes 0.2 to 1.7 mm long; some are bent.

Opaques: 1 percent - subhedral to anhedral, commonly 0.1 mm, as inclusions in hornblende.

Quartz: 14 percent - undulatory extinction, anhedral, irregular grain boundaries, interstitial, as much as 0.5 mm across.

Apatite: Trace - small euhedral to anhedral grains.

Paragenesis: Plagioclase and small hornblende and early quartz (inclusions), biotite, quartz, large hornblende.

ROCK NAME (THIN SECTION): Biotite Hornblende Quartz Diorite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-15

LOCATION: South Fork - Meager Creek (El. 1030 m)

ROCK NAME (FIELD): Diabase (Dyke)

MEGASCOPIC DESCRIPTION:

Black with a few mottled, black and white, irregular streaks approximately 0.5 mm or less, mainly aphanitic, but some grains of amphibole, plagioclase and biotite can be identified.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Holocrystalline, fine-grained, lepidoblastic, equigranular, approach to 120° triple junctions in quartz, minerals are unaltered.

Mineral Descriptions:

Plagioclase: 61 percent - few grains zoned; some with albite or pericline twins, few are twinned; anhedral; An_{32}; with rare small inclusions of hornblende and quartz; usually 0.2 mm.

Hornblende: 25 percent - $\gamma \wedge z = 14°$, 0.1 to 0.3 mm long, commonly the former; anhedral; pleochroism is dark green, light green, yellow; minor iron oxide stain on cleavages.

Quartz: 1 percent - anhedral, less than 0.1 mm.

Biotite: 13 percent - irregular plates of variable size, 0.02 to 0.3 mm.

Apatite: Trace - euhedral to subhedral; small grains, few to 0.1 mm.

Sphene: Trace - small, subhedral; wedge-shaped grains to 0.03 mm.

Muscovite: Trace - a few, irregular grains associated with a few plagioclase grains.

ROCK NAME (THIN SECTION): Diorite Gneiss (inclusion)
(Hornblende Hornfels Facies)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-17 LOCATION: Fall Creek - Camp (El. 1080 m)

ROCK NAME (FIELD): Welded Rhyodacite Tuff

MEGASCOPIC DESCRIPTION:

Pronounced layering of alternating green-grey and dark grey bands. Sample from dark grey layer. Vesicular, with vesicles aligned parallel to layers and to alignment of plagioclase clasts. Groundmass is glassy.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Hypohyaline, glomeroporphyritic with clusters of plagioclase phenocrysts, hyalopilitic.

Mineral Descriptions (Thick Section):

Plagioclase phenocrysts: 13 percent - clusters commonly 3.0 mm and consisting of large grains at 1.0 mm, a few to 5.0 mm, subhedral to euhedral, zoned, worm-like corrosion pits, An_{36}. Smaller phenocrysts are devoid of pits and approximately 0.3 mm long, most are zoned.

Plagioclase microlites: 1 percent - lath-shaped, 0.2 mm long.

Augite: 4 percent - subhedral to euhedral, extinction angle 56°, birefringence of 0.032, as phenocrysts to 0.3 mm.

Hornblende: 1 percent - subhedral to euhedral, red brown with dark brown to light brown pleochroism, phenocrysts approximately 0.3 mm across.

Quartz: 2 percent - anhedral, planar extinction, phenocrysts approximately 0.3 to 0.4 mm long.

Biotite: 1 percent - phenocrysts approximately 0.4 mm long, tabular.

Glass: 51 percent - clear with numerous crystallites (plagioclase ?) which outline the flow direction.

Clusters of grains with core of ragged biotite; embayed, included and surrounded by plagioclase, quartz, spherulites of an unknown zeolite(?), pyroxene and abundant opaques (pyrite ?), 1.2 mm; or thopyroxene is partly replaced.

Andesite clasts 2.5 mm in diameter, subcircular outline, contain subhedral phenocrysts of zoned glomeroporphyritic plagioclase to 0.9 mm and pyroxene to 0.4 mm in a groundmass of plagioclase crystallites and fine opaques.

Opaque: 3 percent - approximately equant, 0.02 mm across.

Zircon: Trace - small, elongate, subhedral.

Vesicles: 22 percent - irregular.

ROCK NAME (THIN SECTION): Augite Andesite Vitrophyre

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-18 LOCATION: Fall Creek - Opposite Camp (El. 1080 m)

ROCK NAME (FIELD): Biotite Hornblende Rhyodacite Porphyry

MEGASCOPIC DESCRIPTION:

Columnar jointed rhyodacite with abundant biotite, quartz, plagioclase and a few hornblende grains as phenocrysts in a grey, glassy matrix. Phenocrysts and a few small vesicles are randomly oriented. Phenocrysts of plagioclase are approximately 3 mm long; vesicles are less than 1 mm long.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Hypohyaline, glomeroporphyritic, with clusters of plagioclase phenocrysts, hyalopilitic.

Mineral Descriptions:

Enstatite: 1 percent - subhedral microphenocrysts, 0.2 mm and rarely 1.2 mm long.

Plagioclase phenocrysts: 28 percent - euhedral to subhedral grains to 1.5 mm, clusters to 4 mm, with worm-like pits near the margins, intensely zoned, few Baveno twins, many grains with overgrowths.

Plagioclase microlites: 2 percent - small lath-shaped.

Hornblende: 4 percent - euhedral to subhedral, phenocrysts to 0.8 mm, usually much less, some with inclusions of irregular opaques, commonly altered to dark brown at the margins.

Biotite: 1 percent - as individual phenocrysts and in clusters to 0.9 mm; some altered dark brown, particularly on margins.

Quartz: 3 percent - anhedral to subhedral grains, rounded and embayed, as phenocrysts to 3.8 mm, usually 1.4 mm.

Groundmass: 57 percent - light brown glass with numerous acicular and irregular crystallites.

Opaques: 1 percent - anhedral to subhedral to 0.2 mm.

Clusters of grains with a ragged biotite core and a rim of quartz, hornblende and opaques; inclusions of opaques and quartz in the biotite; 1.5 mm across.

Vesicles: 3 percent - irregular, 0.4 mm.

ROCK NAME (THIN SECTION): Hornblende Andesite Vitrophyre

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-20

LOCATION: Fall Creek - Monzonite Creek (El. 1070 m)

ROCK NAME (FIELD): Andesite Porphyry

MEGASCOPIC DESCRIPTION:

Dyke, 21 m wide with an irregular contact, and trending 050°/86° NW, 062°/61° SE and locally dipping vertically. Bordered by a breccia zone more than 13 cm wide. The dyke cuts quartz monzonite; it is dark grey to dark green with poorly aligned phenocrysts of plagioclase to 4.5 mm long and hornblende to 1.0 mm long.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Generally aphanitic, glomeroporphyritic to seriate porphyritic with phenocrysts of plagioclase and microphenocrysts of hornblende and augite; trachytic texture. Discontinuous quartz veinlets less than 0.05 mm wide.

Mineral Descriptions:

Plagioclase phenocrysts: 17 percent - anhedral to subhedral, largest phenocrysts are 2.6 mm; larger phenocrysts are pitted parallel to the cleavage directions, others have serrated margins; smaller phenocrysts are equant; cores of phenocrysts have moderate clay alteration and minor epidote; smaller phenocrysts aligned.

Plagioclase microlites: 7 percent - small, lath-shaped, approximately 0.08 mm long, microlites aligned.

Hornblende: 3 percent - euhedral to anhedral, ranges to 0.3 mm maximum, some with ragged margins and embayments; $\gamma \wedge z = 15°$; some phenocrysts fractured and the fragments disoriented.

Augite: 2 percent - $\gamma \wedge z = 51°$; dark brown alteration halos on some grains, others with reaction rims of hornblende, commonly twinned on (100), euhedral to subhedral, range to as much as 0.2 mm.

Biotite: Trace - few grains to 1.5 mm; mostly altered to chlorite, but fresh where they are in clusters having a core of red brown biotite surrounded by plagioclase, hornblende and opaques.

Opaque: 2 percent - subhedral to anhedral, very small to 0.2 mm maximum; some grains extensively embayed by the groundmass.

Apatite: Trace - euhedral grains to 0.3 mm maximum.

Unknown: Trace - in veinlet 0.01 mm wide; high birefringence; abundant iron oxide stain; possibly jarosite.

Groundmass: 66 percent - dark brown, mostly cryptocrystalline with crystallites of plagioclase.

Undetermined alteration: 3 percent - in groundmass, the alteration consists of tabular or prismatic grains 0.2 mm long.

Clasts of hornblende andesite with approximately 40 percent plagioclase and 19 percent hornblende phenocrysts in a cryptocrystalline brown matrix containing a few plagioclase microlites; clast is 6.8 mm across and subrounded.

ROCK NAME (THIN SECTION): Hornblende Augite Andesite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-21

LOCATION: Breccia Zone - Fall Creek (on Monzonite Creek) (El. 1070 m)

ROCK NAME (FIELD): Andesite Breccia

MEGASCOPIC DESCRIPTION:

White and grey mottled in a black matrix. Phenocrysts of plagioclase to 7.0 mm, biotite to 2.0 mm and hornblende to 4.0 mm. Grains are subhedral to anhedral and randomly oriented. Possibly vent area, brecciated, iron oxide stained zone 0.3 m wide with sand to boulder-sized fragments consisting of massive basalt, andesite porphyry, altered quartz monzonite and altered reddish rhyodacite porphyry in an andesite porphyry matrix (part of dyke 21 m wide - see 81-TM-20). Intense alteration at the contact with the quartz monzonite.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Fragmental with angular clasts of the rock types listed above.

Mineral Descriptions:

Quartzite clast: mostly irregular quartz grains, recrystallized, but triple junctions indicate disequilibrium, commonly 0.2 mm, few grains to 1.0 mm, numerous plagioclase grains with moderate clay alteration, minor sericite, clast approximately 7.5 mm across. Some smaller clasts are similar.

Numerous plagioclase clasts to a maximum of 4.0 mm, most are zoned and broken with moderate clay alteration parallel to (010), rims are fresh; smaller plagioclase grains, approximately 0.6 mm, have less alteration and form phenocrysts in the fine matrix.

Quartz diorite clasts, 5.5 mm long, mostly plagioclase to 1.1 mm with moderate clay alteration, quartz to 0.8 mm; some clasts with hornblende that is intensely altered to talc.

Most clasts have been intensely fractured and brecciated.

Matrix is dark brown, slightly devitrified glass, with small microlites aligned parallel to the boundaries of the clasts, few vesicles.

Rhyodacite (?) clasts are elongate, 0.7 mm long with microlites of plagioclase 0.05 to 0.2 mm long are oriented parallel to the axis of elongation of the grain.

Biotite clasts intergrown with minor fresh plagioclase altered to talc along the grain boundaries.

Few vesicles and contact relationships indicate intrusive nature of this rock.

ROCK NAME (THIN SECTION): Andesite Breccia

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-25

LOCATION: Fall Creek - up slope on south side of glacier (El. 1630 m)

ROCK NAME (FIELD): Biotite Rhyodacite Porphyry

MEGASCOPIC DESCRIPTION:

Medium grey with moderate irregular vesicles to 2.0 mm long, usually smaller; phenocrysts of plagioclase with lesser quartz, biotite and hornblende. Alignment of grains is random.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Glomeroporphyritic with fragmental phenocrysts in a matrix consisting principally of plagioclase crystallites; hypocrystalline, hyalopilitic.

Mineral Descriptions:

Plagioclase phenocrysts: 14 percent - subhedral to anhedral, angular to subrounded; to 4.2 mm, commonly 1.2 mm; some fused to other plagioclase phenocrysts; commonly zoned; An_{34}; few poikilitically enclosing biotite and hornblende.

Plagioclase microlites: 2 percent - small, lath-like, varying lengths.

Quartz: 3 percent - anhedral, undulatory to planar extinction; rounded to angular; mostly fragments of grains, size ranges to 3.6 mm, commonly 0.7 mm; relatively smooth grain boundaries.

Biotite: 3 percent - subhedral to anhedral, tabular to equant, 0.3 mm long or smaller, some with dark brown border alteration.

Hornblende: 4 percent - euhedral to subhedral, 0.5 mm long or less; few clusters of hornblende with plagioclase, quartz and opaques; clusters are 1.2 mm across; few grains are twinned on (100).

Apatite: Trace - subhedral, 0.07 mm long.

Opaque: 3 percent - angular, commonly less than 0.01 mm long, few grains to 0.02 mm across.

Augite: Trace - elongate, 0.1 mm long, $\gamma \wedge z = 50°$, positive elongation, birefringence is 0.023; subhedral.

Groundmass: 70 percent - fine acicular to equant crystallites.

ROCK NAME (THIN SECTION): Hornblende Biotite Andesite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-27

LOCATION: Fall Creek - on south side of glacier (El. 1525 m)

ROCK NAME (FIELD): Biotite Rhyodacite Porphyry

MEGASCOPIC DESCRIPTION:

Dark grey, almost black, with numerous plagioclase and quartz phenocrysts to 4.0 mm, fewer hornblende and biotite phenocrysts to 1.0 mm. Phenocrysts of plagioclase are subangular, quartz phenocrysts are rounded. Light grey layers 1 to 4 mm thick are common.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Microlites randomly oriented. Cumuloporphyritic in part, with phenocrysts of plagioclase and biotite; seriate porphyritic, phenocrysts of plagioclase over a wide size range. Light layers have more opaques, aphanitic matrix.

Mineral Descriptions:

Plagioclase phenocrysts: 23 percent - intensely pitted particularly around margins; most are well zoned, lesser zoned grains An_{39}; clusters to 3.2 mm, with individual subhedral grains to 2.6 mm.

Plagioclase microlites: 7 percent - lath-like; small, varying lengths.

Quartz: 2 percent - anhedral grains, approximately 1.7 to 3.2 mm across, rounded, deeply embayed.

Hornblende: 4 percent - euhedral to subhedral, 0.1 mm to as much as 0.4 mm long; $\gamma \wedge z = 15°$; few grains intensely altered.

Biotite: 3 percent - subhedral, tabular books to 0.5 mm, commonly 0.4 mm long; few grains with black alteration products along margin.

Opaque: 1 percent - interspersed throughout groundmass; very small to as much as 0.1 mm; some iron oxide staining around altered mafics, particularly in lighter colored layers.

Groundmass: 59 percent - light brown with abundant microlites of plagioclase in a matrix of cystallites including opaques.

Enstatite: Trace - subhedral to anhedral, usually less than 0.05 mm, but may be as long as 0.1 mm; few grains bounded by hornblende reaction rims, birefringence is 0.01.

Apatite: Trace - euhedral, 0.1 mm long.

Vesicles: 1 percent - irregular, 0.6 mm across.

Zeolite: Trace - unknown variety fills vesicle, low birefringence.

ROCK NAME (THIN SECTION): Hornblende Biotite Andesite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-30

LOCATION: Fall Creek - north side of Cathedral Glacier (El 1430 m)

ROCK NAME (FIELD): Biotite Hornblende Rhyodacite

MEGASCOPIC DESCRIPTION:

Light grey with numerous large phenocrysts of plagioclase and lesser quantities of smaller phenocrysts of quartz, biotite and hornblende, irregular vesicles are common; matrix is glassy. Inclusions of rhyodacite with a brown matrix as well as coarse-grained quartz monzonite and biotite quartz diorite to 95 cm across. Well developed flow layering trends 120°/63° NE.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Porphyritic, matrix hyalopilitic, flow around phenocrysts, vesicular, hypohyaline.

Mineral Descriptions:

Plagioclase phenocrysts: 13 percent - euhedral to subhedral, as much as 4.5 mm across, commonly 2.0 mm, zoned, commonly pitted, embayed if pitted.

Plagioclase microlites: 2 percent - less than 0.3 mm, random orientation, also numerous broken fragments of phenocrysts.

Quartz: 2 percent - anhedral, 1.1 mm to 3.4 mm long, rounded and embayed.

Irregular clusters: 1 percent - to 1.1 mm and consisting of plagioclase grains around a hornblende, biotite and/or enstatite core, abundant opaques; hornblende and biotite resulted from the alteration of enstatite; plagioclase is later and formed as small grains around the biotite.

Biotite: 2 percent - anhedral to subhedral, as much as 1.1 mm long.

Oxyhornblende: 2 percent - red brown, anhedral to euhedral, as much as 0.9 mm long, some grains are unaltered hornblende.

Enstatite: 2 percent - subhedral to euhedral, commonly small grains, but a few grains are as large as 0.8 mm long.

Opaque: 3 percent - anhedral to subhedral, to 0.12 mm, some with abundant iron oxide stain.

Groundmass: 46 percent - small crystallites in a glassy matrix.

Vesicles: 27 percent - irregular and as large as 0.4 mm across.

Apatite: Trace - euhedral to subhedral grains, approximately 0.03 to 0.05 mm long.

Sphene: Trace - anhedral, very small grains associated with a few opaques.

Andesite inclusion, 0.8 mm across, similar to host but it has a darker matrix.

Quartz monzonite inclusion; consisting of irregular, fractured quartz and plagioclase with clay alteration, 3.8 mm across.

Irregular inclusion, 1.6 mm in diameter, consisting of a cluster of enstatite phenocrysts 0.7 mm long in a matrix of plagioclase crystallites.

ROCK NAME (THIN SECTION): Hornblende Biotite Andesite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-35

LOCATION: Fall Creek - Monzonite Creek (El. 1215 m)

ROCK NAME (FIELD): Biotite Hornblende Rhyodacite Porphyry

MEGASCOPIC DESCRIPTION:

Columnar jointed rhyodacite porphyry with phenocrysts of plagioclase, quartz, biotite and hornblende in a dense, light grey aphanitic matrix. Slight rusty color around some clusters of plagioclase.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Seriate porphyritic, glomeroporphyritic in part with clusters of plagioclase phenocrysts, trachytic texture is poorly developed, microcrystalline to cryptocrystalline matrix.

Mineral Descriptions:

Plagioclase phenocrysts: 16 percent - mostly subhedral, rounded, zoned; clusters to a maximum of 7.8 mm with individual grains commonly 2.1 mm long; pericline, albite and Carlsbad-albite twins; An_{28} on grain 0.4 mm long; a few individual grains with intense clay alteration; a few grains intensely pitted.

Plagioclase microlites: 6 percent - lath-shaped grains, 0.1 mm long.

Biotite: 1 percent - anhedral to subhedral, corroded margins, commonly 0.8 mm, few grains with opaques enclosed poikilitically by plagioclase.

Hornblende: 3 percent - anhedral, many are moderately rust-stained, twinned on (100), some intensely altered to a fine green chlorite (?), some with corroded margins, commonly 0.8 mm long, but some are as large as 4.6 mm.

Quartz: 2 percent - few clusters to 6.0 mm, most are individual grains approximately 2.0 mm across, rounded, anhedral, embayed.

Enstatite: 1 percent - anhedral, few grains approximately 0.2 mm long associated with altered hornblende and clusters of plagioclase.

Opaques: 1 percent - subhedral to anhedral, to 0.3 mm, commonly smaller.

Apatite: Trace - euhedral to subhedral, 0.1 to 0.3 mm long, within a large hornblende phenocryst.

Groundmass: 68 percent - microcrystalline to cryptocrystalline with fine opaques, some iron oxide stain.

Vesicles: 2 percent - irregular, approximately 1.1 mm across.

ROCK NAME: (THIN SECTION): Hornblende Biotite Andesite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-36

LOCATION: Fall Creek - Monzonite Creek (El. 1215 m)

ROCK NAME (FIELD): Agglomerate (matrix)

MEGASCOPIC DESCRIPTION:

White with abundant light yellow brown, iron oxide stain, abundant quartz and cream-colored plagioclase, probably derived from quartz monzonite.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Intensely shattered, medium-grained, granular, brecciated areas with small angular fragments of parent rock or component minerals.

Mineral Descriptions:

Plagioclase: 17 percent - anhedral, averages 1.1 mm across, moderate clay alteration, embayed by potash feldspar, some albitization (?), many grains are zoned.

Potash Feldspar: 33 percent - anhedral, with moderate clay alteration, 1.1 mm long, poikilitically encloses some plagioclase.

Quartz: 48 percent - disequilibrium, irregular grain boundaries, anhedral, commonly 2.2 mm long.

Opaques: 2 percent - anhedral, 0.4 mm long, interstitial, partly altered to iron oxide.

Hornblende: Trace - anhedral, 0.4 mm long, partly altered to chlorite and opaques.

Biotite: 1 percent - anhedral, irregular, ragged grains, 0.2 mm long, one altered and broken grain is 1.7 mm long.

Epidote: Trace - minute anhedral grains.

ROCK NAME (THIN SECTION): Brecciated Quartz Monzonite (matrix)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-38

LOCATION: Fall Creek - near base of recent rhyodacite flow (El. 1010 m)

ROCK NAME (FIELD): Rhyodacite Tuff

MEGASCOPIC DESCRIPTION:

Light grey with medium-grey, angular, irregular fragments approximately 3 mm across and comprising 50 percent of sample. Phenocrysts of plagioclase, quartz and biotite in the matrix (1-2 mm across).

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Aphanitic matrix, porphyritic, rarely glomeroporphyritic or cumuloporphyritic with clusters of plagioclase, quartz and biotite phenocrysts; trachytic texture; small quantity of partly devitrified glass.

Mineral Descriptions:

Plagioclase phenocrysts: 5 percent - anhedral, usually in clusters to 2.2 mm, with most grains 1.1 mm long; some are pitted, others are moderately altered to epidote and clay mineral(s), particularly along the margins of some phenocrysts and at the cores of others; poikilitically enclose some biotite grains.

Plagioclase microlites: 48 percent - lath-shaped, 0.1 to 0.2 mm long, poorly aligned.

Quartz: 6 percent - anhedral, rounded; embayed by matrix; undulatory extinction; bordered by brown alteration zone; commonly 1.1 mm across.

Biotite: 3 percent - red brown, bordered by a black alteration zone with abundant opaques; anhedral, commonly 0.8 mm.

Augite: 4 percent - anhedral to subhedral laths to 0.1 mm.

Groundmass: 32 percent - microcrystalline, consists mostly of devitrified glass with small grains of augite and opaques.

Opaques: 1 percent - anhedral, approximately 0.1 mm across, much finer throughout groundmass.

Apatite: Trace - subhedral, less than 0.05 mm across.

Zircon: Trace - subhedral, 0.1 mm, associated with opaques.

Angular fragments approximately 4 mm long and aligned parallel to flow. Same texture and composition as matrix, but fragments have more dark brown, interstitial, devitrified glass. Sample approximately 50 percent fragments.

Intensely altered zones with biotite, quartz, clay and opaques. Derived from phenocrysts 0.35 mm long. Some of these zones have large, serrated biotite grains with clay and opaques at the margins.

ROCK NAME (THIN SECTION): Augite Andesite Flow Breccia

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-40

LOCATION: Affliction Creek (El. 940 m)

ROCK NAME (FIELD): Amphibolite

MEGASCOPIC DESCRIPTION:

Black, medium-grained with hornblende grains approximately 4.5 mm across. Moderately foliated with foliation trending 128°/74° NE, approximately the same as bedding in the nearby hornfels.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Porphyroblasts of hornblende randomly oriented, groundmass grains moderately well aligned and consisting of fine-grained quartz, plagioclase; some ragged hornblende and opaques. Quartz triple junctions approaching 120°; but still significantly different from that angle. Grains are xenoblastic. Fine grains are lepidoblastic.

Mineral Descriptions:

Hornblende: 33 percent - randomly oriented larger grains and oriented smaller grains; both are ragged and poikiloblastic, many grains, 3.9 mm across, contain randomly oriented inclusions of plagioclase, quartz and opaques; other small ragged grains scattered throughout. Larger grains are later.

Plagioclase: 41 percent - anhedral, approximately 0.1 mm long.

Quartz: 12 percent - anhedral, approximately 0.04 mm across, irregular grain boundaries.

Opaques: 6 percent - anhedral, rarely more than 0.02 mm.

Biotite: 8 percent - anhedral, scattered in matrix approximately 0.3 mm long, randomly oriented.

Apatite: Trace - small subhedral grains less than 0.1 mm long.

Chlorite: Trace - anomalous blue birefringence, radiating grains in discontinuous veinlets 0.05 mm wide.

ROCK NAME (THIN SECTION): Amphibolite (Amphibolite Facies?)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-42

LOCATION: Affliction Creek (El. 995 m)

ROCK NAME (FIELD): Hornfels

MEGASCOPIC DESCRIPTION:

Well bedded hornfels, black with white and black discontinuous mica and quartz lenses parallel to bedding, lenses range from less than 1 cm to more than 8 cm wide, the margins along the lenses are bleached. Bedding trends 129°/84° NE, essentially parallel to the adjacent foliations, moderate pyrite.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Poorly developed slaty cleavage, xenoblastic, lepidoblastic. Waviness of beds indicates deformation.

Mineral Descriptions:

Quartz: 64 percent - varies from very fine less than 0.01 mm to more than 0.3 mm in other layers, anhedral, irregular grain boundaries, recrystallized in part, but triple junctions in disequilibirium.

Biotite: 21 percent - anhedral, ragged grains; commonly less than 0.07 mm long; commonly aligned.

Muscovite: 9 percent - anhedral, ragged grains, commonly less than 0.07 mm long; in some layers the muscovite:biotite ratio is high, whereas in others it is low, commonly aligned.

Opaques: 4 percent - (pyrite) anhedral to subhedral equant, disseminated, commonly 0.05 mm on a side, some partly altered to iron oxide.

Apatite: Trace - anhedral to subhedral grains approximately 0.02 mm long.

Clay alteration: 2 percent - locally abundant, very fine, nondescript alteration.

ROCK NAME (THIN SECTION): Quartz Biotite Muscovite Hornfels (Hornblende Hornfels Facies)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-46

LOCATION: Meager Creek - above M-6 (El. 930 m)

ROCK NAME (FIELD): Rhyolite Dyke

MEGASCOPIC DESCRIPTION:

White, dense, massive, aphanitic rock. Bordered by altered quartz diorite in fault contact trending 162°/48° SW. The white rock is intensely sheared resulting in a gulley trending 221°. Finer grained layer on outer surface of rock sample.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Holocrystalline, aphanitic, granular. Mineralogy is the same in the finer grained layer.

Mineral Descriptions:

Laumontite (Leonhardite) (?): 17 percent - in elliptical cavities 1.9 mm long, as radiating needles and minute irregular grains associated with moderate calcite. Also present as moderate alteration throughout the thin section.

Calcite: 13 percent - anhedral, approximately 0.1 mm across.

Quartz: 1 percent - in a few discontinuous veinlets approximately 0.01 mm wide.

Clay alteration: 2 percent - very fine, nondescript clay alteration in the matrix.

Plagioclase and/or Potash Feldspar: 67 percent - anhedral grains with moderate to intense clay alteration, approximately 0.1 mm to 0.3 mm.

Opaques: Trace - minute anhedral grains

Unknown: Trace - very high birefringence, twinning parallel long direction and cleavage, 0.22 mm long, probably aragonite (?).

ROCK NAME (THIN SECTION): Altered Diorite (?)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-47

LOCATION: Meager Creek - above M-6 (Outcrop #6 - El. 1050 m)

ROCK NAME (FIELD): Altered Quartz Diorite

MEGASCOPIC DESCRIPTION:

Black and white mottled, medium-grained with quartz, plagioclase, biotite and hornblende (?). There are a few discontinuous quartz-epidote stringers approximately 0.5 mm wide.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Mostly phaneritic; aphanitic and microcrystalline in part; brecciated and rehealed with quartz, clay minerals, chlorite, biotite and opaques.

Mineral Descriptions:

Plagioclase: 40 percent - anhedral, approximately 1.0 mm across; irregular boundaries, corroded pits filled with quartz are common, clay alteration moderate, may be some albitization; An^{43}.

Quartz: 36 percent - anhedral, 0.3 mm to 0.01 mm, in veinlets and scattered through the plagioclase, in recrystallized zones.

Biotite: 4 percent - irregular laths, many of the more altered grains are iron oxide stained and have inclusions of opaques in recrystallized zones.

Chlorite: 6 percent - anhedral, 0.14 mm long, in recrystallized zones.

Epidote: 5 percent - anhedral, from less than 0.01 mm to 0.8 mm, poikilitically enclosed by quartz and plagioclase.

Opaques: 2 percent - anhedral, 0.4 mm long, irregular boundaries.

Clay alteration: 1 percent - fine alteration over plagioclase grains.

Sericite: 6 percent - ragged, small grains approximately 0.02 mm long.

Apatite: Trace - small, subhedral grains associated with quartzose zones.

ROCK NAME (THIN SECTION): Brecciated Altered Quartz Diorite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-55

LOCATION: Meager Creek - Southeast of M-6 (El. 870 m)

ROCK NAME (FIELD): Quartz Diorite

MEGASCOPIC DESCRIPTION:

Black and white, mottled medium-grained with quartz, plagioclase, biotite and hornblende. Slight gneissic foliation with separation into felsic and mafic zones.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Phaneritic, medium-grained, granular. Lighter zones are bleached, fractured zones, rehealed with quartz, but also including amphibole, biotite, sericite and epidote; margins are also bleached and contain fewer and finer-grained mafics.

Mineral Descriptions:

Plagioclase: 41 percent - anhedral, 0.3 to 0.5 mm; many contain elliptical inclusions of quartz, moderate clay alteration; irregular grain boundaries; An_{42}.

Quartz: 35 percent - slightly irregular grain boundaries, with triple junctions of various angles, anhedral; commonly 0.4 mm; small spherical quartz blebs associated with regions of abundant hornblende and/or lighter colored zones in hand specimen.

Biotite: 10 percent - subhedral laths, 0.07 mm to 0.6 mm long.

Hornblende: 7 percent - dark green, blue green to light brown pleochroism; to 1.6 mm long, commonly 0.4 mm long, anhedral to subhedral, $\gamma \wedge z = 24°$.

Chlorite: 3 percent - subhedral laths, 0.07 mm to 1.0 mm long, mostly from alteration of early biotite (?).

Sericite: 1 percent - elongate needles, 0.07 mm long from alteration of plagioclase.

Epidote: 1 percent - anhedral, small grains 0.03 mm, associated with opaques and related to moderate alteration of a few plagioclase grains.

Opaques: 2 percent - anhedral to subhedral, 0.07 mm, roughly equant.

Apatite: Trace - subhedral, 0.04 mm long.

Clay alteration: 1 percent - moderate, fine-grained alteration of plagioclase grains.

ROCK NAME (THIN SECTION): Biotite Hornblende Quartz Diorite

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-56

LOCATION: Meager Creek - S.E. Side
Lillooet River Bridge
(El. 420 m)

ROCK NAME (FIELD): Gneiss

MEGASCOPIC DESCRIPTION:

Dark green, mafic greenstone with felsic streaks, gneissic foliation, fine-grained, blebs of rust-stained, maroon-streaked, micaceous quartzite to 1.5 cm wide, abundant pyrite, minor chalcopyrite.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Phaneritic, granular, fine-grained, gneissic foliation, xenoblastic; some coarser pods are 0.6 mm across and some coarser layers are 0.7 to 3.1 mm across.

Mineral Descriptions:

Quartz: 37 percent - anhedral; many with inclusions of epidote; partly encloses hornblende; some grains as much as 0.4 mm across, commonly much finer grained. Quartz veinlets and pods to 4.3 mm across and individual grains to 1.0 mm, although most are 0.2 to 0.5 mm; disequilibrium grain boundaries that are locally rust-stained; strain induced bands in the quartz grains are parallel to the foliation.

Biotite: 16 percent - anhedral; poikilitically encloses acicular and columnar grains of hornblende; plates are 0.2 mm across.

Opaques: 1 percent - anhedral; 0.3 to 1.6 mm long; poikilitically encloses quartz and hornblende.

Hornblende: 24 percent - faint green pleochroism, sheaf-like aggregates of acicular grains, subhedral, approximately 0.9 mm long; also common as columnar grains; minor local iron oxide staining.

Epidote: 2 percent - anhedral, approximately 0.02 mm long.

Calcite: Trace - anhedral grains associated with epidote, quartz and hornblende, as large as 0.06 mm, but commonly 0.01 mm.

Unknown: Trace - acicular, moderate relief, low birefringence, bent grains, approximately parallel extinction (0° to 5°), cuts opaque mineral, relief varies slightly on rotation.

Plagioclase: 18 percent - few small grains, some to as much as 0.4 mm, moderate clay and minor sericite alteration.

Clay alteration: 2 percent - abundant in a streak, parallel to the foliation and 0.7 mm wide.

Apatite: Trace - anhedral to subhedral grains approximately 0.02 mm long.

Note: Felsic zones are probably due to cataclysis.

ROCK NAME (THIN SECTION): Quartz Hornblende Biotite Gneiss (Amphibolite Facies)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-57

LOCATION: Meager Creek - Southeast Side, West of Lillooet River Bridge (El. 525 m)

ROCK NAME (FIELD): Hornfels

MEGASCOPIC DESCRIPTION:

Black, almost massive, aphanitic rock with small tension gashes filled with calcite, minor pyrite.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Aphanitic, microgranular, foliated (moderately lepidoblastic), xenoblastic, felsic zones in streaks parallel to foliation which is not well developed because of the fine grain size.

Mineral Descriptions:

Similar mineralogy to 81-TM-56, but finer grained.

Quartz: 6 percent - anhedral grains in the groundmass (0.02 mm) and in veinlets (0.2 mm) as grains 0.04 mm across, irregular grain boundaries.

Hornblende: 87 percent - acicular mats (these may be actinolite) with grains 0.02 mm long and as irregular subequant porphyroblasts 0.2 mm long, mainly in clusters 0.8 mm across.

Plagioclase: 3 percent - anhedral isolated grains 0.4 mm long, some are cut by quartz veinlets and most contain acicular hornblende.

Chlorite: Trace - anomalous birefringence, in veinlets 0.11 mm wide.

Opaques: 4 percent - as large grains 0.1 mm across and more commonly as small grains (less than 0.01 mm) commonly in zones parallel to foliation and in veinlets.

Biotite: Trace - small grains 0.02 mm across.

ROCK NAME (THIN SECTION): Hornblende Quartz Hornfels (Hornblende Hornfels Facies)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-59

LOCATION: Meager Creek - Southeast side, above 81-TM-57 (El. 545 m)

ROCK NAME (FIELD): Greenstone

MEGASCOPIC DESCRIPTION:

Dark green, aphanitic rock with discontinuous quartz - plagioclase veinlets 2.0 mm wide, moderate pyrite. The outcrop is intensely sheared.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Aphanitic, microgranular, xenoblastic, granoblastic, few discontinuous quartz-plagioclase veinlets 2.0 mm across.

Mineral Descriptions:

Plagioclase: 22 percent - relict grains, anhedral; 0.9 mm across; poikilitically encloses hornblende needles; moderate clay alteration.

Quartz: 1 percent - anhedral; 0.12 mm across, disequilibrium grain boundaries.

Hornblende: 65 percent - acicular grains (may be actinolite), mainly 0.04 mm long; with some irregular, subequant porphyroplasts 0.3 to 2.0 mm long (commonly the former), mainly in clusters 2.2 mm across; the clusters are surrounded by the radiating, acicular grains.

Opaque: 1 percent - anhedral grains 0.2 mm long; some grains in a zone 1.1 mm across; has grey altered boundaries associated with epidote.

Biotite: 4 percent - anhedral plates, 0.2 mm across.

Clay alteration: 5 percent - very fine grains, in layers.

Epidote: 1 percent - small, equant grains, approximately 0.02 mm across.

Chlorite: Trace - irregular, small grains 0.01 mm across, associated epidote and clay alteration.

Sericite: 1 percent - small grains, 0.02 mm across, associated with clay, epidote and chlorite in zones.

Appears that fine-grained plutonic rock (diorite, gabbro or hornblendite) has been altered to an aphanitic metamorphic rock.

ROCK NAME (THIN SECTION): Greenstone
(Hornblende Hornfels Facies)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-60

LOCATION: Meager Creek - Southeast side - main road (El. 654 m)

ROCK NAME (FIELD): Hornfels

MEGASCOPIC DESCRIPTION:

Dark brown hornfels with some parts more quartzose, approaching a micaceous quartzite with maroon streaks. Some parts are white and black mottled, resembling a fine phase of a diorite, with streaks extending into the hornfels; weak gneissic foliation. Rust-stained on a fracture through the "gneissic foliation".

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Partly aphanitic, partly phaneritic, xenoblastic, weak gneissocity with streaks of aligned, coarser, quartzose layers in an aphanitic matrix and with moderate alignment of biotite and hornblende.

Mineral Descriptions:

Plagioclase: 46 percent - anhedral, spread throughout matrix, irregular boundaries; many grains have a light dusting of clay alteration; 0.05 to 0.15 mm across.

Quartz: 20 percent - small grains in the matrix, approximately 0.02 mm; anhedral, irregular to rounded grain boundaries, partly recrystallized, triple junctions at various angles; in discontinuous veins and pods (0.23 to 0.50 mm wide); the grains are as much as 0.3 mm across.

Biotite: 9 percent - plates in groundmass and along margins of quartz pods; range from 0.05 mm to 0.10 mm.

Hornblende: 5 percent - anhedral, scattered throughout, approximately 0.1 mm long.

Opaque: 3 percent - anhedral, approximately 0.22 mm long.

Chlorite: 2 percent - as plates and as irrregular pods approximately 0.04 mm long; in specific, discontinuous layers; result from alteration of biotite; range from 0.04 to 0.20 mm long.

Epidote: 15 percent - anhedral; approximately 0.02 mm across; scattered throughout matrix, but more commonly in layers.

Note: Zones along a fracture (from outside inward): chlorite, then biotite, then quartz.

ROCK NAME (THIN SECTION): Quartz-biotite-hornblende Hornfels (Hornblende Hornfels Facies - some subsequent retrograde metamorphism.)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-63

LOCATION: Meager Creek - Southeast side - main road (El. 960 m)

ROCK NAME (FIELD): Greenstone

MEGASCOPIC DESCRIPTION:

Dark green, mafic rock with irregular felsic zones 5 mm long by 1 mm wide; minor pyrite.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Aphanitic, microgranular, xenoblastic, appears to be two foliation directions, approximately perpendicular to each other and poorly developed.

Mineral Descriptions:

Hornblende: 33 percent - anhedral to subhedral columnar and acicular grains; enclosed or partly enclosed by quartz; 0.1 to 0.6 mm long; minor local iron oxide staining; many grains have opaque inclusions.

Quartz: 25 percent - anhedral, disequilibrium triple junctions, irregular grain boundaries, 0.04 to 0.20 mm across; commonly in blebs and veinlets 0.6 mm wide.

Plagioclase: 39 percent - anhedral, sutured grain boundaries; with moderate sericite and clay alteration, a few hornblende inclusions; range from 0.2 to 0.6 mm across; some grains are pitted.

Biotite: Trace - irregular grains, approximately equant; approximately 0.05 mm across.

Epidote: Trace - Rounded, irregular grains; 0.05 mm across.

Opaque: 1 percent - anhedral grains, irregular; 0.02 to 4.2 mm across, commonly 0.02 mm.

Clay alteration 1 percent - fine clay alteration of plagioclase.

Chlorite (?): 1 percent - anhedral grains to 0.04 mm long, associated with hornblende.

Zircon: Trace - small euhedral grains.

Note: The fine, acicular hornblende is along the margins of quartz veins, 0.8 mm wide that have irregular boundaries. Rock is derived from a fine-grained plutonic rock (like 81-TM-59, but more felsic).

ROCK NAME (THIN SECTION): Greenstone
(Hornblende Hornfels Facies)

ROCK DESCRIPTION

SAMPLE NO.: 81-TM-82

LOCATION: Affliction Creek - East Side (El. 1270 m)

ROCK NAME (FIELD): Rhyodacite

MEGASCOPIC DESCRIPTION:

From talus. Medium grey, glassy matrix with plagioclase as lath-shaped phenocrysts to 4.0 mm long, pyroxenes (possible clusters) to 3.0 mm and quartz to 1.0 mm. Irregular vesicles are scarce and approximately 1.0 mm across.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Hypohyaline matrix, seriate porphyritic with phenocrysts of plagioclase, quartz and pyroxene; vesicular. Moderately aligned microlites of plagioclase.

Mineral Descriptions:

Plagioclase phenocrysts: 22 percent - zoned, commonly 0.9 mm across, rarely to 5.1 mm, euhedral to subhedral.

Plagioclase microlites: 24 percent - commonly subhedral laths 0.2 mm long.

Augite: Trace - anhedral, commonly 0.20 mm across, rarely to 0.9 mm, some larger grains poikilitically enclose opaques 0.09 mm across. A few grains are totally altered to hornblende, opaques and clay mineral; contains zoned plagioclase which poikilitically encloses several apatite grains.

Groundmass: 49 percent - numerous crystallites, mostly devitrified to a cryptocrystalline grain size, plus opaques.

Quartz: Trace - anhedral, to 1.0 mm across, rounded, smooth grain boundaries.

Vesicles: 1 percent - commonly irregular and 1.2 mm across.

Epidote: Trace - lining vesicles 0.01 to 0.02 mm long in layers 0.02 mm thick.

Opaques: 1 percent - euhedral to subhedral equant grains 0.02 to 0.43 mm on a side.

Clay alteration (possibly serpentine): Trace - alteration of pyroxene phenocrysts.

Alteration of plagioclase (0.75 mm long) to stilpnomelane (?), opaques, clay, quartz. Grain has hexagonal, euhedral outline.

Enstatite: 3 percent - euhedral to subhedral, 0.45 mm across, commonly with opaques.

ROCK NAME (THIN SECTION): Enstatite Andesite

ROCK DESCRIPTION

SAMPLE NO.: 81-RK-7

LOCATION: Fall Creek - Monzonite Creek (El. 1225 m)

ROCK NAME (FIELD): Hornfels

MEGASCOPIC DESCRIPTION:

Dark grey with light grey, short, discontinuous, siliceous streaks a few mm long. Veinlets of epidote 0.5 mm wide. Disseminated pyrite, 2 mm across, concentrated in some horizons.

MICROSCOPIC DESCRIPTION:

Textures and Structures:

Aphanitic, granular, xenoblastic, lepidoblastic with biotite and elongate quartz grains aligned parallel to transposed (?) bedding.

Mineral Descriptions:

Quartz: 67 percent - anhedral; grain size varies from 0.01 to 0.09 mm long; subrounded to elongate parallel to foliation; disequilibrium grain boundaries, partly recrystallized.

Plagioclase: 9 percent - anhedral elongate to equant grains; 0.03 to 0.1 mm long, with moderate clay alteration.

Biotite: 16 percent - anhedral, plates are 0.01 to 0.09 mm long; some grains are partly altered to chlorite.

Sericite: Trace - anhedral, plates less than 0.03 mm long.

Opaques: 2 percent - anhedral elongate parallel to foliation; 0.01 to 1.2 mm long, usually less than 0.2 mm; one grain bordered by hematite.

Clay alteration: 2 percent - light dusting localized in particular horizons.

Epidote: 1 percent - associated with clay and sericite alteration around a large opaque grain, with clusters of chlorite grains and in veins parallel to the foliation; anhedral.

Chlorite: 3 percent - anhedral and bordering many biotite grains; much of the chlorite is probably from the alteration of hornblende.

Limonite: Trace - iron oxide stain 0.01 mm wide along some fractures.

Apatite: Trace - subhedral grains 0.01 mm long.

ROCK NAME (THIN SECTION): Hornfels
(Albite Epidote Hornfels Facies - some retrograde metamorphism, probably originally Hornblende Hornfels Facies.)

APPENDIX C

CHANGES TO COORDINATES

CHANGES TO CO-ORDINATES

Piteau Data Output:					Corrected Co-ordinates:		
			North	East	Change to	North	East
South Fork	-	25 Jun 1981	599456	65248		599556	65248
South Fork	-	25 Jun 1981	599486	65248		Unchanged	
South Fork	-	25 Jun 1981	599486	65248		Unchanged	
South Fork	-	25 Jun 1981	599556	65248		Unchanged	
South Fork	-	25 Jun 1981	599556	65248		Unchanged	
South Fork	-	26 Jun 1981	598567	66376		Unchanged	
South Fork	-	26 Jun 1981	598559	66425		Unchanged	
South Fork	-	26 Jun 1981	598547	66627		Unchanged	
South Fork	-	26 Jun 1981	598547	66627		Unchanged	
South Fork	-	26 Jun 1981	598512	66651		Unchanged	
South Fork	-	26 Jun 1981	598512	66651		Unchanged	
South Fork	-	26 Jun 1981	598487	66651		Unchanged	
South Fork	-	26 Jun 1981	598450	66682		Unchanged	
South Fork	-	26 Jun 1981	598567	66376		Unchanged	
South Fork	-	26 Jun 1981	598559	66425		Unchanged	
South Fork	-	26 Jun 1981	598559	66425		Unchanged	
South Fork	-	26 Jun 1981	598550	66633		Unchanged	
South Fork	-	26 Jun 1981	598487	66651		Unchanged	
South Fork	-	26 Jun 1981	598487	66651		Unchanged	
South Fork	-	26 Jun 1981	598450	66682		Unchanged	
South Fork	-	08 Jul 1981	598252	66500		Unchanged	
South Fork	-	08 Jul 1981	598267	66630		Unchanged	
South Fork	-	08 Jul 1981	598231	66691		Unchanged	
South Fork	-	08 Jul 1981	598222	66728		Unchanged	
South Fork	-	08 Jul 1981	598250	67010		Unchanged	
South Fork	-	08 Jul 1981	598252	66500		Unchanged	
South Fork	-	08 Jul 1981	598265	66645		Unchanged	
South Fork	-	08 Jul 1981	598265	66645		Unchanged	
South Fork	-	08 Jul 1981	598231	66691		Unchanged	
South Fork	-	08 Jul 1981	598250	67010		Unchanged	
Fall Creek	-	11 Jul 1981	610140	65430		612110	65400
Fall Creek	-	11 Jul 1981	610140	65430		612110	65400
Fall Creek	-	11 Jul 1981	610110	65390		612110	65390
Fall Creek	-	11 Jul 1981	610110	65390		612110	65390
Fall Creek	-	11 Jul 1981	610055	65390		612055	65390
Fall Creek	-	11 Jul 1981	610055	65390		612055	65390
Fall Creek	-	11 Jul 1981	610052	65388		612052	65388
Fall Creek	-	11 Jul 1981	610052	65388		612052	65388

			North	East	Change to	North	East
Fall Creek	-	12 Jul 1981	611625	64685		611665	64825
Fall Creek	-	12 Jul 1981	611625	64685		611665	64825
Fall Creek	-	12 Jul 1981	611440	64560		611440	64460
Fall Creek	-	12 Jul 1981	611500	64400		Unchanged	
Fall Creek	-	12 Jul 1981	611500	64400		Unchanged	
Fall Creek	-	12 Jul 1981	611660	64500		Unchanged	
Fall Creek	-	12 Jul 1981	611680	64520		Unchanged	
Fall Creek	-	12 Jul 1981	611665	64500		Unchanged	
Fall Creek	-	12 Jul 1981	611500	64400		Unchanged	
Fall Creek	-	12 Jul 1981	611660	64500		Unchanged	
Fall Creek	-	13 Jul 1981	611945	64438		Unchanged	
Fall Creek	-	13 Jul 1981	611945	64438		Unchanged	
Fall Creek	-	13 Jul 1981	611800	63730		Unchanged	
Fall Creek	-	13 Jul 1981	611800	63730		Unchanged	
Fall Creek	-	13 Jul 1981	612065	64250		Unchanged	
Fall Creek	-	13 Jul 1981	612240	64400		Unchanged	
Fall Creek	-	13 Jul 1981	611945	64438		Unchanged	
Fall Creek	-	13 Jul 1981	611802	63731		611802	64731
Fall Creek	-	13 Jul 1981	612065	64250		Unchanged	
Fall Creek	-	13 Jul 1981	612065	64250		Unchanged	
Fall Creek	-	13 Jul 1981	612260	64357		Unchanged	
Fall Creek	-	14 Jul 1981	611800	65250		Unchanged	
Fall Creek	-	14 Jul 1981	611800	65250		Unchanged	
Fall Creek	-	14 Jul 1981	611785	65240		Unchanged	
Fall Creek	-	14 Jul 1981	611775	65235		611735	65180
Fall Creek	-	14 Jul 1981	611775	75235		611735	65180
Fall Creek	-	16 Jul 1981	613710	64607		Unchanged	
Affliction Creek	-	23 Aug 1981	613200	59974		Unchanged	
Affliction Creek	-	23 Aug 1981	613200	59775		Unchanged	
Affliction Creek	-	23 Aug 1981	613200	59775		Unchanged	
Affliction Creek	-	23 Aug 1981	613030	59725		Unchanged	
Affliction Creek	-	23 Aug 1981	613030	59725		Unchanged	
Affliction Creek	-	23 Aug 1981	613035	59725		Unchanged	
Affliction Creek	-	23 Aug 1981	612880	59725		Unchanged	
Affliction Creek	-	23 Aug 1981	613200	59775		Unchanged	
Affliction Creek	-	23 Aug 1981	613200	59775		Unchanged	
Affliction Creek	-	23 Aug 1981	613200	59775		Unchanged	
Affliction Creek	-	23 Aug 1981	613200	59774		Unchanged	
Affliction Creek	-	23 Aug 1981	613030	59726		Unchanged	
Affliction Creek	-	23 Aug 1981	613030	59725		Unchanged	
Affliction Creek	-	23 Aug 1981	613035	59725		Unchanged	
Affliction Creek	-	23 Aug 1981	613015	59705		Unchanged	
Affliction Creek	-	23 Aug 1981	612985	59730		Unchanged	
Affliction Creek	-	23 Aug 1981	612965	59730		Unchanged	
Affliction Creek	-	23 Aug 1981	612880	59725		Unchanged	

		North	East	Change to	North	East
M-6 & M-10 (Above M-4 and M-6, above M6, above and east of M6, east of M6)						
M-6 & M-10	- 25 Aug 1981	602070	63670		602070	63600
M-6 & M-10	- 25 Aug 1981	602200	63760		602520	63915
M-6 & M-10	- 25 Aug 1981	602100	63825		602130	63970
M-6 & M-10	- 25 Aug 1981	602435	63295		602435	64295
M-6 & M-10	- 25 Aug 1981	602485	63270		602485	64270
M-6 & M-10	- 25 Aug 1981	602515	63295		602515	64295
M-6 & M-10	- 25 Aug 1981	602515	63295		602515	64295
M-6 & M-10	- 26 Aug 1981	602305	63370		602305	64370
M-6 & M-10	- 26 Aug 1981	602330	63350		602330	64350
M-6 & M-10	- 26 Aug 1981	602380	63340		602380	64340
M-6 & M-10	- 26 Aug 1981	602405	63330		602405	64330
M-6 & M-10	- 26 Aug 1981	602405	63330		602405	64330
M-6 & M-10	- 26 Aug 1981	602435	63295		602435	64295
M-6 & M-10	- 26 Aug 1981	602500	63290		602500	64290
M-6 & M-10	- 26 Aug 1981	602500	63290		602500	64290
M-6 & M-10	- 26 Aug 1981	602305	63370		602305	64370
M-6 & M-10	- 26 Aug 1981	602330	63350		602330	64350
M-6 & M-10	- 26 Aug 1981	602380	63340		602380	64340
M-6 & M-10	- 26 Aug 1981	602435	63295		602435	64295
M-6 & M-10	- 26 Aug 1981	602435	63295		602435	64295
M-6 & M-10	- 27 Aug 1981	602070	64290		602070	64670
M-6 & M-10	- 27 Aug 1981	602175	64360		602175	64630
M-6 & M-10	- 27 Aug 1981	602440	64070		602440	65050
M-6 & M-10	- 27 Aug 1981	602250	64110		602200	65110
M-6 & M-10	- 27 Aug 1981	602180	64130		602180	65130
M-6 & M-10	- 27 Aug 1981	-	-		602150	65130
M-6 & M-10	- 27 Aug 1981	602000	64110		601970	65110
M-6 & M-10	- 27 Aug 1981	601900	64070		601900	65050
M-6 & M-10	- 27 Aug 1981	602070	64290		602070	64670
M-6 & M-10	- 27 Aug 1981	602070	64290		602070	64670
M-6 & M-10	- 27 Aug 1981	602175	64360		602175	64630
M-6 & M-10	- 27 Aug 1981	602440	64070		602440	65050
M-6 & M-10	- 27 Aug 1981	602180	64130		602150	65130
M-6 & M-10	- 27 Aug 1981	602180	64130		602150	65130
M-6 & M-10	- 27 Aug 1981	602000	64110		601970	65110
M-6 & M-10	- 27 Aug 1981	602000	64100		601970	65100
Southeast	- 28 Aug 1981	607560	71530		Unchanged	
Southeast	- 28 Aug 1981	607060	71125		Unchanged	
Southeast	- 28 Aug 1981	607040	70780		Unchanged	
Southeast	- 28 Aug 1981	607520	71020		Unchanged	
Southeast	- 28 Aug 1981	609125	70705		608125	70705
Southeast	- 28 Aug 1981	609125	70705		608125	70705
Southeast	- 28 Aug 1981	607670	70885		607520	70800
Southeast	- 28 Aug 1981	607395	70665		607450	70640

			North	East	Change to	North	East
Southeast	-	28 Aug 1981	607395	70665		607450	70640
Southeast	-	28 Aug 1981	607870	70550		607870	70540
Southeast	-	28 Aug 1981	607785	70530		607660	70450
Southeast	-	28 Aug 1981	607500	70315		607500	70300
Southeast	-	28 Aug 1981	607500	70315		607500	70300
Southeast	-	28 Aug 1981	607515	69970		607515	69990
Southeast	-	28 Aug 1981	607560	71530		Unchanged	
Southeast	-	28 Aug 1981	607060	71125		Unchanged	
Southeast	-	28 Aug 1981	607040	70780		Unchanged	
Southeast	-	28 Aug 1981	607560	71020		607520	71020
Southeast	-	28 Aug 1981	609125	70705		608125	70705
Southeast	-	28 Aug 1981	607670	70885		607520	70800
Southeast	-	28 Aug 1981	607395	70665		607450	70640
Southeast	-	28 Aug 1981	607395	70665		607450	70640
Southeast	-	28 Aug 1981	607480	70670		607600	70650
Southeast	-	28 Aug 1981	607500	70315		607500	70300
Southeast	-	15 Sep 1981	607325	70235		607400	70230
Southeast	-	15 Sep 1981	607325	70235		607400	70230
Southeast	-	15 Sep 1981	607290	71260		Unchanged	
Southeast	-	15 Sep 1981	607295	71285		607270	71320
Southeast	-	15 Sep 1981	607310	70255		607500	70470
Southeast	-	15 Sep 1981	607315	70300		607675	70635
Southeast	-	15 Sep 1981	606450	69705		Unchanged	
Affliction Creek	-	16 Sep 1981	611700	58835		Unchanged	
Affliction Creek	-	16 Sep 1981	611800	59045		Unchanged	
Affliction Creek	-	16 Sep 1981	611700	58835		Unchanged	
Affliction Creek	-	16 Sep 1981	611800	59045	?	607675	70635
Affliction Creek	-	16 Sep 1981	611910	59200		611910	59150
Affliction Creek	-	17 Sep 1981	611855	59400		Unchanged	
Affliction Creek	-	17 Sep 1981	611920	59470		Unchanged	
Affliction Creek	-	17 Sep 1981	612335	59635		Unchanged	
Affliction Creek	-	17 Sep 1981	612550	59725		Unchanged	
Affliction Creek	-	17 Sep 1981	612600	59755		Unchanged	
Affliction Creek	-	17 Sep 1981	612600	59750		Unchanged	
Affliction Creek	-	17 Sep 1981	612980	59900		Unchanged	
Southeast	-	18 Sep 1981	607515	69970		Unchanged	
Southeast	-	18 Sep 1981	607515	69970		Unchanged	
Southeast	-	18 Sep 1981	607855	69935		Unchanged	
Southeast	-	18 Sep 1981	607790	69955		Unchanged	
Southeast	-	18 Sep 1981	607710	69970		Unchanged	
Southeast	-	18 Sep 1981	607630	69975		Unchanged	
Southeast	-	18 Sep 1981	607555	69955		Unchanged	
Southeast	-	18 Sep 1981	607485	69865		Unchanged	

APPENDIX D

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
South Fork	Veins - Faults	Averaged (Visually)		-	1	031	79NW	-	-
South Fork	Vein	598 250	67 010	QZD	1/1	030	79NW	1	50
South Fork	Fault	599 486	65 249	QZD	1/1	032	80NW	1	50
South Fork	Foliation	Averaged (Visually)		-	1	066	76SE	-	-
South Fork	Foliation	598 250	67 010	QZD	1/1	049	61SE	2	100
South Fork	Foliation	598 252	66 500	QZD	1/1	078	59SE	1	100
South Fork	Foliation	599 556	65 248	QZD	/2	136	76SW	5	100
South Fork	Contact	598 550	66 633	AMH-QZD	1/1	062	66SE	2	100
South Fork	Joint	Averaged (Visually)		-	1	059	75SE	-	-
South Fork	Joint	598 487	66 651	QZD	1/1	063	70SE	5	19
South Fork	Joint	599 486	65 248	QZD	3/1	067	87SE	9	14
South Fork	Joint	598 450	66 682	QZD	4/1	066	88SE	5	10
South Fork	Joint	599 456	65 248	QZD	1/1	061	80SE	12	16
South Fork	Joint	598 550	66 633	QZD	3/1	048	74SE	4	9
South Fork	Joint	598 267	66 630	QZD	2/1	056	69SE	4	14
South Fork	Joint	598 550	66 633	AMH	1/1	060	62SE	1	100
South Fork	Joint	Averaged (Visually)		-	2	128	67SW	-	-
South Fork	Joint	599 456	65 248	QZD	2/2	122	67SW	6	8
South Fork	Joint	598 512	66 651	QZD	4/2	134	71SW	4	9
South Fork	Joint	599 456	65 248	QZD	3/3	007	72SE	7	9
South Fork	Joint	599 456	65 248	QZD	4/4	058	33NW	7	9
South Fork	Joint	Averaged (Visually)		-	5	027	26SE	-	-
South Fork	Joint	598 559	66 425	QZD	1/5	027	27SE	4	15
South Fork	Joint	599 486	65 248	QZD	1/5	027	26SE	19	30
South Fork	Joint	599 486	65 248	QZD	2/6	155	40NE	11	17
South Fork	Joint	598 450	66 682	AMH	1/7	149	56SW	2	50
South Fork	Joint	598 559	66 425	QZD	2/8	109	75SW	4	15
South Fork	Joint	Averaged (Visually)		-	9	166	33SW	-	-
South Fork	Joint	598 550	66 633	QZD	5/9	165	33SW	4	9

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
South Fork	Joint	598 559	66 425	QZD	3/9	167	33SW	3	11
South Fork	Joint	598 559	66 425	QZD	4/10	098	24NE	3	11
South Fork	Joint	Averaged (Visually)		-	11	000	78E	-	-
South Fork	Joint	598 550	66 633	QZD	1/11	003	73SE	6	14
South Fork	Joint	598 252	66 500	QZD	3/11	171	83NE	5	16
South Fork	Joint	598 547	66 627	QZD	1/11	176	82NE	13	42
South Fork	Joint	598 512	66 651	QZD	1/11	003	80SE	10	23
South Fork	Joint	Averaged (Visually)		-	12	086	77SE	-	-
South Fork	Joint	598 550	66 633	QZD	2/12	088	77SE	6	14
South Fork	Joint	598 547	66 627	QZD	2/12	084	77SE	4	13
South Fork	Joint	Averaged (Visually)		-	13	054	42SE	-	-
South Fork	Joint	598 512	66 651	QZD	2/13	052	38SE	4	9
South Fork	Joint	598 450	66 682	QZD	3/13	066	49SE	6	12
South Fork	Joint	598 267	66 630	QZD	3/13	063	43SE	4	14
South Fork	Joint	Averaged (Visually)		-	14	160	72SW	-	-
South Fork	Joint	598 512	66 651	QZD	3/14	159	77SW	4	9
South Fork	Joint	598 550	66 633	QZD	4/14	159	69SW	4	9
South Fork	Joint	Averaged (Visually)		-	15	143	77NE	-	-
South Fork	Joint	598 267	66 630	QZD	1/15	146	86NE	5	17
South Fork	Joint	598 487	66 651	QZD	2/15	132	74NE	6	22
South Fork	Joint	598 450	66 682	QZD	1/15	140	70NE	16	31
South Fork	Joint	598 487	66 651	QZD	3/16	114	70NE	5	19
South Fork	Joint	598 450	66 682	QZD	2/17	020	61NW	5	10
South Fork	Joint	598 252	66 500	QZD	1/18	134	85SW	6	19
South Fork	Joint	598 252	66 500	QZD	2/19	087	79NW	6	19
South Fork	Joint	598 267	66 630	QZD	4/20	000	03E	4	14
South Fork	Joint	Averaged (Visually)		-	21	156	85NE	-	-
South Fork	Joint	598 265	66 645	QZD	1/21	158	84NE	1	25
South Fork	Joint	598 231	66 691	QZD	1/21	159	85NE	12	41
South Fork	Joint	598 250	67 010	QZD	1/21	154	85NE	19	34
South Fork	Joint	598 250	67 010	QZD	3/22	028	83SE	5	9
South Fork	Joint	Averaged (Visually)		-	23	039	72NW	-	-

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
South Fork	Joint	598 450	66 682	AMH	2/23	038	70NW	1	25
South Fork	Joint	598 250	67 010	QZD	2/23	039	73NW	6	11
South Fork	Joint	598 450	66 682	AMH	1/24	149	56SW	2	50

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
M6-M10	Foliation	Averaged (Visually)		-	1	082	27NW	-	-
M6-M10	Foliation	602 520	63 915	QZD	1/1	080	24NW	4	44
M6-M10	Foliation	602 180	65 130	QZD	2/1	085	35NW	2	13
M6-M10	Foliation	602 130	63 970	QZD	1/1	063	32NW	1	33
M6-M10	Foliation	601 900	65 050	QZD	1/1	085	22NW	2	40
M6-M10	Foliation	601 970	65 100	GNS	1/1	095	35NE	2	33
M6-M10	Foliation	602 440	65 050	DIOQZD	1/1	084	32NW	2	13
M6-M10	Foliation	Averaged (Visually)		-	2	109	75SW	-	-
M6-M10	Foliation	602 070	63 600	QZD	1/2	110	75SW	7	47
M6-M10	Foliation	601 970	65 100	GNS	2/2	108	83SW	1	17
M6-M10	Foliation	Averaged (Visually)		-	3	170	32SW	-	-
M6-M10	Foliation	602 500	64 290	QZD	1/3	168	33SW	6	60
M6-M10	Foliation	601 900	65 050	QZD	2/3	173	24SW	1	20
M6-M10	Foliation	Averaged (Visually)		-	4	123	45SW	-	-
M6-M10	Foliation	602 380	64 340	GRN	1/4	116	42SW	10	53
M6-M10	Foliation	602 070	64 670	GNS	1/4	125	57SW	4	16
M6-M10	Foliation	602 330	64 350	GRN	1/4	126	44SW	5	56
M6-M10	Foliation	602 405	64 330	GRN	1/4	124	41SW	10	91
M6-M10	Foliation	602 435	64 295	QZD	1/4	133	48SW	1	100
M6-M10	Foliation	602 130	63 970	QZD	1/4	112	43SW	1	33
M6-M10	Foliation	602 435	64 295	HNF	1/4	104	42SW	1	100
M6-M10	Foliation	602 515	64 295	QZD	1/4	126	51SW	2	66
M6-M10	Foliation	602 150	65 130	QZD	1/4	138	60SW	4	27
M6-M10	Foliation	Averaged (Visually)		-	5	147	46SW	-	-
M6-M10	Foliation	602 330	64 350	GRN	2/5	153	44SW	2	22
M6-M10	Foliation	602 435	64 295	GRN	1/5	144	43SW	26	60
M6-M10	Foliation	602 380	64 340	GRN	2/5	146	43SW	7	37
M6-M10	Foliation	602 435	64 295	RYT	1/5	144	50SW	1	100
M6-M10	Foliation	601 900	65 050	QZD	2/5	138	44WS	1	20
M6-M10	Foliation	Averaged (Visually)		-	6	146	71SW	-	-
M6-M10	Foliation	602 070	63 600	QZD	2/6	141	69SW	4	27
M6-M10	Foliation	602 440	65 050	DIO-QZD	2/6	142	70SW	2	13

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
M6-M10	Foliation	602 070	64 670	GNS	2/6	153	75SW	2	8
M6-M10	Foliation	602 070	64 670	GNS	3/7	148	26SW	2	8
M6-M10	Foliation	602 070	64 670	GNS	4/8	169	78SW	2	8
M6-M10	Foliation	601 970	65 110	GNS	1/9	130	37NE	2	17

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Southeast	Bedding	Averaged (Visually)		-	1	141	62SW	-	-
Southeast	Bedding	607 515	69 970	MAR	1/1	140	64SW	32	76
Southeast	Bedding	607 485	69 865	MAR	1/1	155	54SW	1	100
Southeast	Bedding	Averaged (Visually)		-	2	123	78SW	-	-
Southeast	Bedding	607 630	69 975	MAR	1/2	126	76SW	1	100
Southeast	Bedding	607 710	69 970	MAR	1/2	118	80SW	1	100
Southeast	Bedding	Averaged (Visually)		-	3	146	80SW	-	-
Southeast	Bedding	607 515	69 970	MAR	1/3	143	80SW	1	100
Southeast	Bedding	607 555	69 955	MAR	1/3	148	80SW	1	100
Southeast	Bedding	607 515	69 970	MAR	2/4	170	54NE	9	21
Southeast	Foliation	Averaged (Visually)		-	1	151	83SW	-	-
Southeast	Foliation	607 560	71 530	GNS	2/1	144	85SW	2	20
Southeast	Foliation	607 040	70 780	HNF	1/1	157	77SW	2	66
Southeast	Foliation	607 060	71 125	HNF	1/1	154	86SW	1	100
Southeast	Foliation	Averaged (Visually)		-	2	125	73SW	-	-
Southeast	Foliation	607 710	69 970	GRN	1/2	125	65SW	2	100
Southeast	Foliation	606 450	69 705	QZD	1/2	120	80SW	1	100
Southeast	Foliation	607 870	70 540	GRN	1/2	130	83SW	1	100
Southeast	Foliation	607 450	70 640	GRN	1/2	128	76SW	1	100
Southeast	Foliation	607 500	70 315	GRN	1/2	125	70SW	3	100
Southeast	Foliation	607 560	71 530	GNS	3/2	129	82SW	2	20
Southeast	Foliation	Averaged (Visually)		-	3	101	82SW	-	-
Southeast	Foliation	607 600	70 650	GRN	1/3	110	90	1	100
Southeast	Foliation	607 560	71 530	GNS	1/3	099	82SW	4	40
Southeast	Fault	Averaged (Visually)		-	1	007	80NW	-	-
Southeast	Fault	607 060	71 125	HNF	1/1	008	75NW	1	50
Southeast	Fault	607 560	71 530	GNS	1/1	007	85NW	5	38
Southeast	Fault	Averaged (Visually)		-	2	033	82SE	-	-
Southeast	Fault	607 040	70 780	HNF	1/2	037	83SE	4	44
Southeast	Fault	607 060	71 125	HNF	1/2	029	82SE	1	50

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Southeast	Fault	607 400	70 230	GRN	1/2	026	72SE	1	50
Southeast	Fault	607 500	70 300	GRN	1/2	025	84SE	1	100
Southeast	Fault	Averaged (Visually)		-	3	023	78NW	-	-
Southeast	Fault	607 040	70 780	HNF	2/3	024	82NW	2	22
Southeast	Fault	607 395	70 230	GRN	1/3	020	59NW	1	50
Southeast	Fault	607 710	69 970	GRN	1/3	043	80NW	1	100
Southeast	Fault	Averaged (Visually)		-	4	161	79SW	-	-
Southeast	Fault	607 515	69 970	MAR	1/4	158	75SW	1	50
Southeast	Fault	607 485	69 865	D10	1/4	154	81SW	1	100
Southeast	Fault	607 400	70 230	GRN	1/5	164	40NE	3	75
Southeast	Joint	Averaged (Visually)		-	1	060	64NW	-	-
Southeast	Joint	607 485	69 865	D10	1/1	066	65NW	1	100
Southeast	Joint	608 125	70 705	GRN	4/1	058	63NW	7	8
Southeast	Joint	Averaged (Visually)		-	2	017	68NW	-	-
Southeast	Joint	607 450	70 640	GRN	1/2	017	66NW	36	31
Southeast	Joint	607 040	70 780	HNF	1/2	028	66NW	16	16
Southeast	Joint	607 560	71 530	GNS	1/2	005	69NW	30	31
Southeast	Joint	607 500	70 300	GRN	1/2	006	72NW	31	37
Southeast	Joint	607 400	70 230	GRN	1/2	017	60NW	32	29
Southeast	Joint	608 125	70 705	GRN	3/2	026	85NW	5	5
Southeast	Joint	608 125	70 705	GRN	5/2	021	53NW	5	5
Southeast	Joint	607 600	70 650	GRN	1/2	022	59NW	10	53
Southeast	Joint	607 500	70 470	GRN	1/2	004	67NW	1	33
Southeast	Joint	607 060	71 125	HNF	1/2	025	47NW	1	100
Southeast	Joint	607 520	71 020	HNF	1/2	028	65NW	1	100
Southeast	Joint	607 870	70 540	GRN	1/2	011	62NW	1	50
Southeast	Joint	607 660	70 450	GRN	1/2	008	46NW	1	25
Southeast	Joint	607 520	71 020	GRN	1/2	027	50NW	1	25
Southeast	Joint	607 270	71 320	GRN	1/2	009	48NW	1	100
Southeast	Joint	607 520	70 800	GRN	2/2	005	57NW	3	23
Southeast	Joint	Averaged (Visually)		-	3	031	80SE	-	-

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Southeast	Joint	607 515	69 970	MAR	2/3	033	80SE	8	14
Southeast	Joint	607 560	71 530	GNS	3/3	016	85SE	19	21
Southeast	Joint	607 520	70 800	GRN	1/3	020	80SE	4	31
Southeast	Joint	607 040	70 780	HNF	2/3	034	82SE	28	27
Southeast	Joint	608 125	70 705	GRN	1/3	033	77SE	25	27
Southeast	Joint	607 710	69 970	MAR	1/3	027	75SE	1	100
Southeast	Joint	607 660	70 450	GRN	2/3	028	90	1	25
Southeast	Joint	607 675	70 635	GRN	1/3	024	83SE	1	100
Southeast	Joint	607 450	70 640	GRN	3/3	017	85SE	26	22
Southeast	Joint	Averaged (Visually)		-	4	160	59NE	-	-
Southeast	Joint	607 500	70 470	GRN	2/4	172	60NE	1	33
Southeast	Joint	607 600	70 650	GRN	3/4	166	50NE	2	11
Southeast	Joint	607 515	69 970	MAR	5/4	156	72NE	1	2
Southeast	Joint	607 660	70 450	GRN	1/4	173	47NE	1	25
Southeast	Joint	607 520	71 020	GRN	2/4	154	71NE	1	25
Southeast	Joint	Averaged (Visually)		-	5	127	73SW	-	-
Southeast	Joint	607 500	70 315	GRN	2/5	129	68SW	9	11
Southeast	Joint	607 040	70 780	HNF	6/5	124	77SW	5	5
Southeast	Joint	607 450	70 640	GRN	2/5	117	76SW	28	24
Southeast	Joint	607 560	71 530	GNS	3/5	136	74SW	10	10
Southeast	Joint	607 600	70 650	GRN	2/5	130	70SW	5	26
Southeast	Joint	607 790	69 955	GRN	1/5	120	81SW	1	100
Southeast	Joint	Averaged (Visually)		-	6	130	44NE	-	-
Southeast	Joint	607 520	70 800	GRN	3/6	138	49NE	3	23
Southeast	Joint	608 125	70 705	GRN	2/6	125	41NE	6	7
Southeast	Joint	607 400	70 230	GRN	2/7	096	81NE	37	33
Southeast	Joint	607 560	71 530	GNS	2/8	085	54SE	7	7
Southeast	Joint	607 515	69 970	MAR	1/9	103	22NE	15	27
Southeast	Joint	607 515	69 970	MAR	3/10	036	19NW	8	14
Southeast	Joint	607 040	70 780	HNF	3/11	162	69SW	22	22

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Fall Creek	Fault	611 735	65 180	HNF	1	135	73SW	1	100
Fall Creek	Vein (Fault)	612 052	65 388	QMT	1	143	78SW	1	100
Fall Creek	Fault	612 052	65 388	QMT	1	134	81SW	1	17
Fall Creek	Fault	611 800	63 730	RYD	2	051	90	3	100
Fall Creek	Bed	611 735	65 180	HNF	1	118	81SW	2	100
Fall Creek	Flowbands	611 800	63 730	RYD	2	158	60SW	1	100
Fall Creek	Flowbands	611 945	64 438	RYD	3	156	65NE	1	100
Fall Creek	Joints	Averaged (Visually)		-	1	064	42NW	-	-
Fall Creek	Joints	611 735	65 180	HNF	1/1	058	43NW	39	25
Fall Creek	Joints	611 800	65 250	QMT	2/1	070	35NW	27	18
Fall Creek	Joints	612 110	65 400	QMT	3/1	057	43NW	31	19
Fall Creek	Joints	611 680	64 520	RYD	2/1	073	37NW	1	25
Fall Creek	Joints	Averaged (Visually)		-	2	119	85SW	-	-
Fall Creek	Joints	612 240	64 400	RYD	1/2	111	84SW	1	25
Fall Creek	Joints	611 680	64 520	RYD	1/2	119	76SW	1	25
Fall Creek	Joints	611 735	65 180	HNF	2/2	118	86SW	27	18
Fall Creek	Joints	611 665	64 825	RYD	2/3	020	80SE	19	25
Fall Creek	Joints	Averaged (Visually)		-	3	014	84SE	-	-
Fall Creek	Joints	612 052	65 388	QMT	3/3	013	78SE	6	7
Fall Creek	Joints	611 945	64 438	RYD	1/3	025	85SE	9	9
Fall Creek	Joints	611 735	65 180	HNF	3/3	023	87SE	24	16
Fall Creek	Joints	Averaged (Visually)		-	4	120	43NE	-	-
Fall Creek	Joints	613 710	64 607	RYD	1/4	123	44NE	29	25
Fall Creek	Joints	612 240	64 400	RYD	2/4	120	42NE	1	25
Fall Creek	Joints	611 735	65 180	HNF	4/4	115	28NE	14	9
Fall Creek	Joints	612 055	65 390	AND	1/4	104	37NE	23	24
Fall Creek	Joints	613 710	64 607	RYD	2/5	121	51SW	12	10
Fall Creek	Joints	Averaged (Visually)		-	6	008	78NW	-	-
Fall Creek	Joints	611 500	64 400	RYD	2/6	012	83NW	13	14
Fall Creek	Joints	612 240	64 400	RYD	3/6	011	87NW	1	25

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Fall Creek	Joints	611 945	64 438	RYD	3/6	013	77NW	7	7
Fall Creek	Joints	611 500	64 400	RYD	2/6	009	78SE	16	17
Fall Creek	Joints	613 710	64 607	RYD	3/6	006	78NW	13	11
Fall Creek	Joints	Averaged	(Visually)	-	7	145	82SW	-	-
Fall Creek	Joints	612 065	64 250	RYD	3/7	147	81SW	5	11
Fall Creek	Joints	611 800	65 250	QMT	1/7	148	83SW	49	33
Fall Creek	Joints	611 660	64 500	RYD	1/7	141	82SW	38	19
Fall Creek	Joints	Averaged	(Visually)	-	8	041	66SE	-	-
Fall Creek	Joints	612 055	65 390	AND	2/8	048	64SE	14	21
Fall Creek	Joints	2611 800	65 250	QMT	3/8	038	68SE	8	5
Fall Creek	Joints	Averaged	(Visually)	-	9	128	72SW	-	-
Fall Creek	Joints	612 110	65 400	QMT	2/9	126	74SW	24	15
Fall Creek	Joints	611 945	64 438	RYD	2/9	128	74SW	9	9
Fall Creek	Joints	611 800	65 250	QMT	4/9	127	66SW	17	12
Fall Creek	Joints	Averaged	(Visually)	-	10	093	56SW	-	-
Fall Creek	Joints	612 260	64 357	RYD	1/10	090	52SW	14	27
Fall Creek	Joints	611 500	64 400	RYD	1/10	096	62SW	38	41
Fall Creek	Joints	Averaged	(Visually)	-	11	087	80SE	-	-
Fall Creek	Joints	612 110	65 390	QMT	3/11	084	88SE	5	8
Fall Creek	Joints	612 065	64 250	RYD	4/11	086	89SE	4	9
Fall Creek	Joints	612 260	64 357	RYD	2/11	094	75SW	8	15
Fall Creek	Joints	612 260	64 357	RYD	3/12	074	32NW	11	21
Fall Creek	Joints	612 260	64 357	RYD	4/13	095	77NE	7	13
Fall Creek	Joints	Averaged	(Visually)	-	14	067	85SE	-	-
Fall Creek	Joints	611 800	63 730	RYD	2/14	065	90	65	35
Fall Creek	Joints	612 260	64 357	RYD	5/14	078	77SE	6	52
Fall Creek	Joints	612 065	64 250	RYD	1/15	163	88NE	8	17
Fall Creek	Joints	Averaged	(Visually)	-	16	022	86NW	-	-
Fall Creek	Joints	612 065	64 250	RYD	2/16	027	85NW	5	11
Fall Creek	Joints	611 660	64 500	RYD	3/16	017	88NW	18	9
Fall Creek	Joints	611 800	63 730	RYD	1/17	172	51SW	62	33
Fall Creek	Joints	611 800	63 730	RYD	3/18	170	77NE	9	5

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Fall Creek	Joints	612 065	64 250	RYD	5/19	018	55SE	4	9
Fall Creek	Joints	Averaged (Visually)		-	20	126	82NE	-	-
Fall Creek	Joints	611 660	64 500	RYD	2/20	127	75NE	28	14
Fall Creek	Joints	611 945	64 438	RYD	4/20	127	74NE	8	8
Fall Creek	Joints	612 052	65 388	QMT	1/20	125	87NE	42	51
Fall Creek	Joints	612 110	65 390	QMT	2/21	033	52NW	13	21
Fall Creek	Joints	Averaged (Visually)		-	22	034	42SE	-	-
Fall Creek	Joints	612 052	65 388	QMT	2/22	034	38SE	9	11
Fall Creek	Joints	612 110	65 390	QMT	1/22	038	46SE	22	35
Fall Creek	Joints	611 665	64 825	RYD	1/23	066	3SE	22	29

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Affliction Creek	Bedding	613 330	59 725	HNF		129	84NE		
Affliction Creek	Bedding	612 995	59 725	QZT		122	71NE		
Affliction Creek	Bedding	612 970	59 725	QZT		107	90		
Affliction Creek	Bedding	612 795	59 700	QZT		098	77NE		
Affliction Creek	Bedding	612 780	59 700	QZT		127	72NE		
Affliction Creek	Bedding	612 785	59 700	QZT		112	72NE		
Affliction Creek	Bedding	612 755	59 700	GNS		114	72NE		
Affliction Creek	Bedding	612 680	59 645	GNS		120	72NE		
Affliction Creek	Bedding	612 605	59 590	HNF		098	90		
Affliction Creek	Foliation	Averaged (Visually)		-	1	130	71NE	8	62
Affliction Creek	Foliation	613 030	59 725	AMH & HNF	1	122	72NE	2	50
Affliction Creek	Foliation	612 880	59 725	QZT	1	113	58NE	1	50
Affliction Creek	Foliation	612 600	59 755	SLT	1	139	77NE	2	100
Affliction Creek	Foliation	612 550	59 725	SLT	1	135	71NE	3	100
Affliction Creek	Foliation	612 550	59 725	QZD or D10	2	134	86SW	1	8
Affliction Creek	Faults	613 200	59 775	AMH	1/1	029	79SE	6	60
Affliction Creek	Faults	613 200	59 775	AMH	2/2	157	47NE	2	20
Affliction Creek	Faults	Averaged (Visually)		-	3	074	75SE	4	50
Affliction Creek	Faults	613 030	59 725	AMH	1/3	080	15SE	1	33
Affliction Creek	Faults	613 200	59 775	AMH	1/3	070	77SE	1	100
Affliction Creek	Veins	613 200	59 775	AMH	4	161	23SE	2	66
Affliction Creek	Faults and Veins	Averaged (Visually)		AMH	5	150	88SW	3	20
Affliction Creek	Joints	611 800	59 045	QZD	1/1	122	76NE	16	14
Affliction Creek	Joints	611 800	59 045	QZD	2/2	043	37NW	15	13
Affliction Creek	Joints	611 800	59 045	QZD	3/3	167	25SW	11	9
Affliction Creek	Joints	611 800	59 045	QZD	4/4	173	53SW	9	8
Affliction Creek	Joints	Averaged (Visually)		-	5	059	78SE	-	-
Affliction Creek	Joints	613 200	59 775	AMH	4/5	056	76SE	5	6
Affliction Creek	Joints	611 700	58 835	QMT	1/5	061	80SW	23	19

SUMMARY OF FRACTURE DATA FROM MEAGER CREEK

Area	Anisotropy	Latitude	Departure	Rock Type	Importance Group No.	Strike	Dip	Weight No.	Weight (%)
Affliction Creek	Joints	611 700	58 835	QMT	2/6	095	80SW	13	11
Affliction Creek	Joints	Averaged (Visually)		-	7	162	70NE	-	-
Affliction Creek	Joints	613 200	59 775	RYD	1/7	171	72NE	38	35
Affliction Creek	Joints	613 200	59 775	AMH	2/7	152	64NE	13	17
Affliction Creek	Joints	611 700	58 835	QMT	3/7	159	69NE	14	12
Affliction Creek	Joints	Averaged (Visually)		-	8	014	41NW	-	-
Affliction Creek	Joints	611 700	58 835	QMT	4/8	012	40NW	14	11
Affliction Creek	Joints	612 880	59 725	AND	1/8	020	43NW	1	100
Affliction Creek	Joints	Averaged (Visually)		-	10	054	82NW	-	-
Affliction Creek	Joints	612 880	59 725	QZT	2/10	052	85NW	11	12
Affliction Creek	Joints	611 855	59 400	QZD	1/10	058	79NW	1	50
Affliction Creek	Joints	611 920	59 470	GNS	1/10	068	69NW	1	100
Affliction Creek	Joints	612 880	59 725	QZT	1/11	146	43SW	21	24
Affliction Creek	Joints	613 200	59 775	RDZ	2/12	124	30SW	25	23
Affliction Creek	Joints	613 200	59 775	AMH	1/13	090	23N	18	23
Affliction Creek	Joints	613 200	59 775	AMH	3/14	-	0	12	16

APPENDIX E

FORMAT CODE AND FRACTURE DATA

FORMAT CODE

1. Location 2. Date: Year Month Day

3. Photo Number : (P#) TM 01 03 Rock Sample:
sampler Roll # Photo # 81-RK-5

4. STATION (m) N(northing) E(easting) Universal Transverse
LOCATION 6096000 - 490888* Mercator Grid

* First number ~~if~~ is omitted for convenience

5. Elevation (m)

6. FRACTURES :

TYPE :
- SHR - Shear
- FOL - Foliation
- JNT - Joint
- FLT - Fault
- VEN - Vein
- CNT - Contact
- BED - Bedding
- DYK - Dyke
- 999 - Face

REG :
- REG - Regular
- MOD - Medium
- IRR - Irregular

ROUGHNESS (RUF) :

- RUF - Rough
- MOD - Medium
- SMO - Smooth

7. ALTERATION, ROCK :
(Note : Disregard notes over 4 letters; put under Remarks)

From Field Sheets:	From Piteau Investigation (where different):
AND - Andesite	
QM - Quartz Monzonite	QMZ - Quartz Monzonite
DI - Diorite	
AM - Amphibolite	AMH - Amphibolite
AP - Apatite	
ASP - Arsenopyrite	
BI - Biotite	
CA - Calcite	
CN - Chalcedony	
CHL - Chlorite	
HG - Cinnabar	
EP - Epidote	
FSP - Feldspar	
GT - Garnet	
GF - Graphite	
GYP - Gypsum	
NA - Halite	
LM - Limonite	

From Field Sheets:

GN - Gneiss
MAG - Magnetite
QZ - Quartz
GGE - Gouge
RY - Rhyolite
DA - Dacite
HNFS - Hornfels
SIL - Silicious
RYDA - Rhyodacite
QZDI - Quartz Diorite
QZTE - Quartzite
MAR - Marble
GRN - Greenstone
SLT - Slate

From Piteau Investigation (where different):

GNS - Gneiss
HFS - Hornfels
RYD - Rhyodacite
QZD - Quartz Diorite
MBL - Marble

ALTERATION INTENSITY :

HI - High
MOD - Medium
LOW - Low

List of Miscellaneous Abbreviations :

P# -Photo Number
ELEV - Elevation
STR - Strike
TYP - Fracture Type
LNG - Length
WID - Width
SPACE - Spacing Between Fractures
- Number
REG - Regularity

LOCATION: MEAGER SOUTH FORK

DATE: 81-6-25

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0103	599556	65248	830	QZDI	138	76SW	FOL	2+	0.1	2-9	5	IRR	-	RUF	-	-	
					000	31E	JNT	2+	0.1	60.0	3	"	-	"	-	-	
					158	34NE	JNT	2	0.1	4-15	15	"	-	"	-	-	
					138	14SW	JNT	2+	0.1	80.0	2	"	-	"	-	-	
					047	86NW	JNT	7+	999	-	1	"	-	MOD	-	-	
					177	76SW	JNT	2	999	8	3	"	-	RUF	-	-	
					015	45NW	JNT	1	0.1	5	2	"	-	"	-	-	
					054	83SE	JNT	1+	-	1	2	"	-	"	-	-	
					058	76SE	JNT	2+	999	7	2	"	-	"	-	-	
					002	31SE	JNT	2+	0.1	3	5	"	-	MOD	-	-	
	599486	65248		QZDI	063	88SE	JNT	8+	0.1	2	3	REG	-	"	-	-	
					159	21NE	JNT	2+	0.1	4	3	IRR	-	"	-	-	
					164	38NE	JNT	2+	0.1	2	7	REG	-	"	-	-	
					137	89SW	JNT	2	0.2	100	2	IRR	-	RUF	-	-	
					058	61SE	JNT	1	0.1	-	1	"	-	"	-	-	
					152	40NE	JNT	3	0.2	10	4	"	-	"	-	-	
					152	63NE	JNT	0.7	0.1	15	2	"	-	"	-	-	
					028	27SE	JNT	2+	999	30	3	REG	-	MOD	-	-	
					004	74NW	JNT	2+	999	30	2	"	-	"	-	-	
					132	89SW	JNT	2+	999	20	2	"	-	"	-	-	
					178	52NE	JNT	1+	999	1	2	"	-	RUF	-	-	
					147	64SW	JNT	1	999	-	1	IRR	-	"	-	-	
					034	33SE	FLT	2+	999	-	1	REG	-	SMO	EP	MOD	Striae 016/4°
					014	28SE	JNT	2+	999	-	1	"	-	RUF	-	-	
					033	82NW	JNT	1+	999	-	1	"	-	MOD	-	-	
					137	83NE	JNT	0.3+	999	-	1	"	-	"	-	-	
					016	31SE	JNT	4+	999	-	3	"	-	"	-	-	minor mafic incl. ab. amph.
					032	80NW	FLT	1+	999	-	3	"	-	"	EP	MOD	
					117	68NE	JNT	0.3+	999	-	1	"	-	"	-	-	
					024	30SE	JNT	2+	999	-	1	"	-	SMO	-	-	

LOCATION: MEAGER SOUTH FORK

DATE: 81-6-25

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0103	599486	65248	830	QZDI	157	85SW	JNT	0.3+	0.5	-	1	IRR	-	RUF	-	-	
					066	89NW	JNT	3+	999	3-8	5	REG	-	SMO	-	-	
					031	21SE	JNT	2+	999	4	11	"	-	MOD	-	-	
					168	62SW	JNT	3+	999	100	2	IRR	-	"	-	-	
					022	82SE	JNT	0.3	999	-	1	IRR	-	"	-	-	
					021	81SE	JNT	1+	999	-	1	REG	-	"	-	-	
					137	75SW	JNT	0.3+	999	5	2	IRR	-	"	-	-	
					056	86SE	JNT	1+	999	-	1	REG	-	SMO	-	-	
	599556	65248	830	QZDI	054	75SE	JNT	1+	0.5	10-100	4	"	-	MOD	-	-	
					087	33NW	JNT	1+	0.1	50	2	"	-	"	-	-	
					023	60NW	JNT	5+	0.0	40-50	3	"	-	"	-	-	
					170	45SE	JNT	5+	0.0	-	1	"	-	"	-	-	
					128	24NW	JNT	1	0.3	50	2	"	-	"	-	-	
					074	84SE	JNT	3	0.0	40	3	"	-	"	EP	LOW	GGE
					049	80NW	JNT	1	0.0	20	2	"	-	"	EP	LOW	GGE
					030	80NW	VEN	2	0.0	-	1	IRR	20	RUF	QZEP	MOD	2 cm thick
					138	88NE	JNT	3+	1	50-500	3	"	10	"	-	-	
					156	41NE	JNT	1+	0.3	150	2	REG	-	MOD	-	-	
					149	90	JNT	0.5	0.1	50	2	"	-	"	-	-	
					165	53NE	JNT	1	0.2	80	2	"	-	"	-	-	
					041	43NW	JNT	2	0.4	50	2	"	-	"	-	-	
					027	82SE	JNT	5	0.3	20	2	"	-	"	-	-	
					126	61SW	JNT	3+	0.2	30	6	"	-	"	QZEP	MOD	INFILLING 0.1-2 cm
					20	90	JNT	3	999	30	2	"	-	"	EP	LOW	ENCRUST
					59	85SE	JNT	5+	2.0	150	4	"	-	"	EP	LOW	
					141	67SW	JNT	7	0.0	20	2	"	-	"	EP	MOD	EP<2 cm
					008	71SE	JNT	5	2.0	30	7	"	-	"	EP	LOW	
					105	87SW	JNT	5+	0.0	180	4	"	-	"	EP	MOD	

LOCATION: MEAGER SOUTH FORK

DATE: 81-6-26

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	599556	65248	830	QZDI	162	76SW	JNT	5	0.2	20	2	REG	-	MOD	-	-	
					115	63SW	JNT	4+	0.1	30	4	"	-	SMO	-	-	
					056	30NW	JNT	2	0.0	20	3	"	-	"	-	-	
					034	60SE	JNT	4	0.2	20	4	"	-	"	-	-	
					060	33NW	JNT	1+	0.1	60	2	"	-	"	-	-	
					150	64NE	JNT	7+	1.0	200	3	"	-	"	-	-	
					062	85SE	JNT	7+	0.0	20	2	"	-	"	-	-	
					063	41NW	JNT	2	0.5	100	2	"	-	"	EP	LOW	1 mm ENCRUST
TM0106	598567	66376	975	QZDI	043	64SE	JNT	1+	999	-	1	"	-	MOD	-	-	
					084	46NW	JNT	1+	999	-	1	"	-	"	-	-	
					037	70SE	FLT	1+	0.0	1	3	"	-	"	CHL	LOW	Poorly devel. lineation plunging SW/24
					166	88NE	JNT	1	999	-	1	IRR	-	"	-	-	
					096	55SW	DYK	2+	1	-	1	-	-	-	-	-	FELSIC DYKE
	598559	66425	990	QZDI	112	84SW	JNT	3+	999	-	1	REG	-	MOD	-	-	
					103	75SW	JNT	5+	999	50	2	"	-	"	-	-	
					026	44SE	JNT	1	999	-	1	"	-	SMO	-	-	
					017	28SE	JNT	2+	0.1	-	1	IRR	-	MOD	-	-	
					097	81SW	JNT	1+	999	-	1	REG	-	"	-	-	
					162	60SW	JNT	1	999	-	1	IRR	-	"	-	-	
					038	24SE	JNT	2+	0.0	1	2	REG	-	SMO	-	-	
					017	35SE	JNT	0.3+	0.0	-	1	"	-	"	-	-	
					157	80NE	JNT	0.3+	0.0	6	2	IRR	-	RUF	-	-	
					074	84NW	JNT	0.1+	999	-	1	REG	-	SMO	-	-	
	598547	66627	1070	QZDI	001	82NW	JNT	1+	0.0	5	4	IRR	-	MOD	-	-	
					038	11SE	JNT	0.3+	0.0	6	2	"	-	"	-	-	
					101	70NE	JNT	0.3+	999	-	1	"	-	"	-	-	
					027	47NW	JNT	1+	0.0	50	2	REG	-	"	-	-	
					177	75NE	JNT	1	0.3	20	3	IRR	-	RUF	-	-	
					026	48NW	JNT	0.3+	999	-	1	"	-	"	-	-	

LOCATION: MEAGER SOUTH FORK

DATE: 81-6-26

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	598547	66627	1070	QZDI	178	78NE	JNT	1	999	-	1	IRR	-	RUF	-	-	
					095	89SW	JNT	1	999	-	1	"	-	"	-	-	
					087	82SE	JNT	1	999	-	1	"	-	"	-	-	
					177	87NE	JNT	2+	0.0	100	3	"	-	"	-	-	
					023	86SE	JNT	1+	999	-	1	REG	-	MOD	-	-	
					037	64SE	JNT	2+	0.3	-	1	"	-	-	-	-	
					154	74NE	JNT	2+	0.5	-	1	"	-	MOD	-	-	
					097	88SW	FOL	-	-	-	-	-	-	-	-	-	
					085	79SE	JNT	1+	0.5	20	3	IRR	-	RUF	-	-	
					027	88NW	JNT	0.5+	0.1	14	2	REG	-	"	-	-	
					004	72NW	JNT	0.5+	0.1	14	2	"	-	"	-	-	
					176	39SW	JNT	0.8+	0.3	100	2	"	-	SMO	-	-	
TM0107	598512	66651	1100	QZDI	092	75NE	JNT	4+	999	-	1	IRR	-	MOD	-	-	
					037	84NW	JNT	3+	0.3	80	3	"	-	RUF	-	-	
					177	67SW	JNT	1	1.0	-	1	"	-	"	-	-	
					098	88NE	JNT	3+	999	-	1	"	-	"	-	-	
					168	87SW	JNT	2	0.5	-	1	"	-	"	-	-	
					017	59NW	JNT	3+	3	100	2	"	-	"	-	-	
					013	36SE	JNT	0.3	0.0	0.3	3	"	-	"	-	-	
					008	66SE	JNT	0.3	0.1	0.1	2	"	-	"	-	-	
					133	69SW	JNT	0.3+	0.1	10	3	"	-	"	-	-	
					135	76SW	JNT	1.0+	999	-	1	REG	-	SMO	-	-	
					111	78SW	JNT	1.0+	999	-	1	"	-	"	-	-	
					052	76SE	JNT	0.3+	0.0	-	1	"	-	RUF	-	-	
					045	77SE	JNT	0.3+	0.0	-	1	"	-	"	-	-	
					008	56SE	JNT	0.3+	0.0	-	1	"	-	SMO	-	-	
					018	66NW	JNT	1.0+	0.0	-	1	"	-	RUF	-	-	
					159	75SW	JNT	1.0+	0.0	50	2	"	-	SMO	-	-	
					002	88SE	JNT	1.0+	0.3	50	3	"	-	MOD	-	-	
					042	34NW	JNT	1.0+	0.0	1.0	3	"	-	"	-	-	
					078	50SE	JNT	1.0+	0.0	0.3	2	"	-	"	-	-	
					004	77SE	JNT	2.0+	0.1	0.3	4	"	-	"	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0107	598512	66651	1100	QZDI	158	86SW	JNT	2.0+	0.0	0.3	2	REG	-	SMO	-	-	
					052	42SE	JNT	1.0+	0.1	0.3	3	IRR	-	RUF	-	-	
					048	39SE	JNT	1.0+	0.0	-	1	"	-	"	-	-	
	598487	66651	1120	QZDI	067	77SE	FOL	-	-	-	-	-	-	-	-	-	
					060	80SE	FOL	-	-	-	-	-	-	-	-	-	
					165	79NE	JNT	1	0.3	-	1	IRR	-	MOD	-	-	
					068	45SE	JNT	0.7+	0.1	-	1	"	-	"	-	-	
					131	28SW	JNT	0.7+	0.0	30	2	"	-	"	-	-	
					008	83NW	JNT	1.0+	0.0	30	2	"	-	"	-	-	
					063	65SE	JNT	1.0+	999	-	1	"	-	"	-	-	
	598450	66682	1145	QZDI	063	88SE	JNT	3.0+	999	-	4	"	-	"	-	-	
					015	66NW	JNT	0.3+	0.0	30	3	"	-	"	-	-	
					136	44NE	JNT	0.8	0.0	20	3	"	-	"	-	-	
					145	84NE	JNT	0.8+	999	30	3	REG	-	"	-	-	
					154	71NE	JNT	1.0+	0.1	2	6	IRR	-	"	-	-	
					066	90	JNT	0.5+	999	-	1	"	-	"	-	-	
					017	67SE	JNT	0.8+	999	50	2	"	-	"	-	-	
					138	67NE	JNT	0.8+	0.0	0.2	3	"	-	"	-	-	
					042	86SE	JNT	0.2+	0.0	8.0	2	"	-	"	-	-	
					010	17NW	JNT	0.3+	999	-	1	"	-	"	-	-	
					025	61NW	JNT	1.0	0.1	15	2	"	-	"	-	-	
					045	34NW	JNT	1.0+	0.1	30	2	"	-	"	-	-	
	598567	66376	975	AM	037	86NW	FOL	1	0.0	.1-1	7	"	-	"	-	-	CONTACT QZDI
				AM	148	51NE	JNT	1+	0.0	50	2	REG	-	"	-	-	
				AM	174	11SE	JNT	1.5	.2	-	1	"	-	"	-	-	
				AM	159	76NE	CNT	2+	10	-	1	IRR	-	"	-	-	CONTACT QZDI
				QZDI	164	85SW	JNT	1.5	1	-	1	REG	-	SMO	-	-	
				QZDI	132	57SW	JNT	.5	0.0	-	1	"	-	"	-	-	
				QZDI	110	26NE	CNT	.7	2	-	1	IRR	-	RUF	QZEP	MOD	INFILLING 2 cm
	598559	66425	990	QZDI	052	30NW	JNT	.5+	0.0	-	1	REG	-	SMO	QZEP	LOW	
				QZDI	097	51NE	JNT	1	0.5	-	1	"	-	MOD	-	-	
				QZDI	120	58SW	JNT	1	0.0	-	1	"	-	SMO	-	-	

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P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	598559	66425	990	QZDI	040	59SE	JNT	2+	0.2	-	1	REG	-	SMO	EP	LOW	ENCRUST 1 mm
				QZDI	113	80SW	JNT	1	0.0	-	1	"	-	"	-	-	
				QZDI	114	68NE	JNT	1	0.0	-	1	"	-	MOD	-	-	
				QZDI	102	82NE	JNT	4	999	-	1	"	-	SMO	EP	LOW	ENCRUST BANDING
				QZDI	100	26NE	JNT	4	0.2	150	3	"	-	"	EP	LOW	STRIKE SLIP
				QZDI	168	34SW	JNT	4	0.2	70	3	"	-	"	-	-	
				QZDI	015	61NW	JNT	1	0.1	-	1	"	-	"	-	-	
	598550	66633	1070	QZDI	002	73SE	JNT	2	0.0	100	2	"	-	"	-	-	
					165	60NE	JNT	2	0.0	-	1	"	-	"	-	-	
					160	74SW	JNT	4	0.0	40	2	"	-	MOD	-	-	
			1070	QZDI	159	65SW	JNT	1+	0.0	100	2	"	-	"	-	-	
				QZDI	088	71SE	JNT	2	999	30-50	3	IRR	10°	RUF	-	-	
				QZDI	145	74NE	JNT	3+	0.5	80	2	REG	-	MOD	-	-	
				QZDI	049	76SE	JNT	2+	1.2	30-50	4	"	-	"	-	-	
				QZDI	165	35SW	JNT	3.5	0.6	20-50	4	"	-	"	-	-	
				QZDI	089	85SE	JNT	3	0.1	100	3	"	-	RUF	EP	LOW	
				QZDI	002	45SE	JNT	3	1.5	130	2	"	-	MOD	-	-	
				QZDI	072	84SE	JNT	2+	0.6	20-50	4	"	-	"	EP	LOW	ENCRUST
				QZDI	148	64NE	JNT	2+	0.0	-	1	"	3°	SMO	-	-	
				QZDI	000	74E	JNT	2+	0.6	50	3	"	-	"	-	-	
				QZDI	122	49NE	JNT	2	0.2	-	1	"	-	"	-	-	
				AM	069	71SE	CNT	3+	0.5	80	5	"	4°	"	-	-	INCLUSION
				QZDI	052	66SE	CNT	2+	0.6	10-25	4	"	-	"	-	-	11-lel CONTACT
				QZDI	026	76NW	JNT	1.5+	1.0	-	1	"	-	MOD	-	-	
				QZDI	061	74SE	JNT	3+	.5	30	2	"	-	"	-	-	
				QZDI	005	77SE	JNT	2+	0.1	-	1	"	-	SMO	-	-	
				AM	060	62SE	JNT	2.5+	1.5	-	1	"	-	"	-	-	INCLUSION
				QZDI	139	73NE	JNT	2+	999	-	1	IRR	-	RUF	-	-	
				QZDI	082	64SE	JNT	1	.1	-	1	REG	-	MOD	-	-	
				QZDI	011	58NW	JNT	2	0.0	40	2	"	-	"	-	-	
	598487	66651	1120	QZDI	114	74NE	JNT	3	0.0	40	2	"	-	"	-	-	
					132	73NE	JNT	2.5+	0.0	30	6	"	-	"	EP	LOW	

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P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	598487	66651	1120	QZDI	062	73SE	JNT	2+	0.2	20	4	REG	-	SMO	-	-	
					114	71NE	JNT	1.5+	0.0	20	3	"	-	"	-	-	
					038	81NW	JNT	1.7+	0.0	30	3	"	-	"	-	-	
					024	52NW	JNT	.7+	0.0	40	2	"	-	"	-	-	
	598450	66682	1145	AM	039	71NW	JNT	2	0.0	-	1	"	-	"	-	-	AMPHIBOLE SAMPLE TAKEN c/w QTZ. DIORITE
				AM	075	80NW	JNT	2	0.0	-	1	"	-	MOD	-	-	
				AM	144	57SW	JNT	2	0.3	-	3	"	-	SMO	-	-	
				QZDI	144	72NE	JNT	2+	0.1	20	10	"	-	"	-	-	
					050	49SE	JNT	3+	0.5	15	6	"	-	"	-	-	
					158	83NE	JNT	1	.4	-	1	"	-	"	-	-	
				AM	154	58SW	JNT	1+	0.0	30	4	"	-	"	-	-	
				QZDI	079	60NW	JNT	.5	0.0	50	2	"	-	"	-	-	

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DATE: 81-7-8

P#	STATION N (m)	STATION E (m)	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	ALTERATION INT	REMARKS
TM0111	598252	66500	1030	QZDI	026	82NW	JNT	1	999	-	1	REG	-	MOD	-	-	81-TM-13
					128	90	JNT	3+	1	100	2	REG	-	MOD	-	-	
					033	57SE	JNT	4+	1	80	2	REG	-	MOD	-	-	
					152	56NE	JNT	3	1	-	1	REG	-	MOD	-	-	
					088	72NW	JNT	1	0.0	1	6	MOD	-	MOD	-	-	
					152	80NE	JNT	1	0.0	-	1	MOD	-	MOD	-	-	
					049	42SE	JNT	1	0.0	1	2	MOD	-	MOD	-	-	
					148	88SW	JNT	1	0.0	-	1	MOD	-	MOD	-	-	
					158	73NE	JNT	1	999	-	1	MOD	-	MOD	-	-	
	598267	66630	1080	QZDI	144	87SW	JNT	4+	999	-	1	MOD	-	RUF	-	-	81-TM-14
					058	73NW	JNT	1+	999	-	1	IRR	-	MOD	-	-	
					042	77NW	JNT	1+	999	-	1	IRR	-	MOD	-	-	
					065	88SE	JNT	0.2+	0.0	-	1	IRR	-	MOD	-	-	
					028	89NW	JNT	1+	1	-	1	IRR	-	MOD	-	-	
					012	03SE	JNT	1	1	30	4	IRR	-	MOD	-	-	EPID.-CHL 1 cm WIDE ON MARGINS
					034	70NW	JNT	1	1	-	1	MOD	-	MOD	-	-	
					049	61NW	JNT	1	1	-	1	IRR	-	RUF	-	-	
					056	67NW	JNT	1	1	-	1	IRR	-	RUF	-	-	
					018	58NW	JNT	2	0.5	6	2	IRR	-	RUF	-	-	
					053	41SE	JNT	2+	0.5	30	2	REG	-	SMO	-	-	
					046	59NW	JNT	0.3	1	-	1	IRR	-	RUF	-	-	
					155	88NE	JNT	1+	0.0	2	2	MOD	-	MOD	-	-	
					057	70SE	JNT	0.1+	0.0	-	1	MOD	-	RUF	-	-	
					069	49SE	JNT	0.2+	0.0	2	2	MOD	-	MOD	-	-	SOME EPID.-CHL ON MARGIN PARALLEL FOLN.
					144	85NE	JNT	0.3	0.0	30	2	MOD	-	MOD	-	-	
					052	69SE	JNT	1+	999	1	3	MOD	-	MOD	-	-	
					022	37NW	JNT	1+	0.0	30	2	MOD	-	MOD	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0112	598231	66691	1110	QZDI	052	63NW	JNT	4+	999	-	1	REG	-	MOD	-	-	
					125	64SW	JNT	2+	999	-	1	IRR	-	RUF	-	-	
					035	39SE	JNT	2+	1	-	1	IRR	-	RUF	-	-	
	598222	66728	1130		048	74SE	JNT	2+	999	-	1	MOD	-	RUF	-	-	
					045	73SE	JNT	2+	999	-	1	MOD	-	RUF	-	-	
					058	74SE	JNT	3+	999	-	1	MOD	-	RUF	-	-	
					124	76NE	JNT	1+	999	30	2	IRR	-	RUF	-	-	
			1130	QZDI	145	82NE	JNT	1+	0.1	10	2	MOD	-	MOD	-	-	
TM0113	598250	67010	1290	QZDI	135	87NE	JNT	3+	0.1	-	1	MOD	-	MOD	-	-	81-TM-15
TM0114					153	90	JNT	2+	0.1	1	7	MOD	-	MOD	-	-	81-TM-16
					000	0	JNT	0.1+	0.0	-	1	REG	-	SMO	-	-	
					013	48SE	JNT	1+	0.0	25	4	MOD	-	MOD	-	-	
					003	71NW	JNT	1	0.0	30	2	MOD	-	MOD	-	-	
					116	88SW	JNT	1	0.0	35	2	IRR	-	RUF	-	-	
					103	34NE	JNT	0.6	0.0	-	1	IRR	-	RUF	-	-	
					026	83SE	JNT	0.3	0.0	-	1	IRR	-	RUF	-	-	
					140	73SW	JNT	4+	1	5	2	REG	-	SMO	-	-	
					096	86SW	JNT	1+	0.0	-	1	MOD	-	SMO	-	-	
					055	54SE	FOL	-	-	-	-	-	-	-	-	-	
					017	31SE	JNT	4+	0.3	200	2	IRR	4	MOD	-	-	
					027	84SE	JNT	3	0.2	30	3	REG	-	MOD	-	-	
	598252	66500	1030	QZDI	056	45SE	JNT	3+	.3	-	1	REG	-	MOD	-	-	PARALLEL FOLIATION
					078	82SE	JNT	3+	0.0	200	2	REG	-	MOD	-	-	
					135	88SW	JNT	2.5+	0.0	20	4	REG	-	MOD	-	-	
					078	59SE	FOL	2+	0.0	-	1	REG	-	MOD	-	-	
					171	82NE	JNT	2	999	50	5	REG	-	MOD	-	-	
					060	83NW	JNT	2.5+	1.0	30	3	REG	-	MOD	-	-	
	598265	66645	1090	QZDI	159	85NE	JNT	0.5+	999	30	2	REG	-	MOD	-	-	
					035	74NW	JNT	0:6+	.2	15	3	REG	-	MOD	-	-	
					153	87SW	JNT	0.5+	.3	20	2	REG	-	MOD	-	-	
					105	21SW	JNT	0.4+	.1	30	2	REG	-	MOD	-	-	
					100	89SW	JNT	2+	.4	40	2	REG	-	MOD	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	598265	66645	1090	QZDI	053	61NW	JNT	2+	999	-	1	REG	-	MOD	-	-	
RK0106	598231	66691	1110	QZDI	053	53SE	JNT	2.5+	0.3	40	2	REG	-	MOD	-	-	
					073	73SE	JNT	3+	999	15	2	REG	-	MOD	-	-	
					016	74NW	JNT	1.5	999	-	1	REG	-	MOD	-	-	
					137	88SW	JNT	3.5+	0.4	20	2	REG	-	MOD	-	-	
					152	87SW	JNT	0.8+	0.2	50	4	REG	-	MOD	-	-	
					002	67NW	JNT	2+	999	-	1	REG	-	MOD	-	-	
					161	88NE	JNT	2.5+	999	90	2	REG	-	MOD	-	-	
					127	86NE	JNT	4+	0.8	30	2	REG	-	MOD	-	-	
			1110	QZDI	142	86NE	JNT	2.5+	0.8	20	2	REG	-	MOD	-	-	
					045	85NW	JNT	1.0	999	16	2	REG	-	MOD	-	-	
					163	87NE	JNT	3+	0.3	13	6	REG	-	MOD	-	-	
	598250	67010	1290	QZDI	144	88SW	JNT	9	999	20	6	REG	10°	MOD	-	-	
					043	19NW	JNT	1.4	1.0	-	1	REG	-	MOD	-	-	
					046	34SE	JNT	2.0	0.0	-	1	REG	-	MOD	-	-	
					021	78NW	JNT	1+	2.5	-	1	REG	-	MOD	-	-	
					039	77NW	JNT	1+	999	25	4	IRR	-	MOD	-	-	
					156	84NE	JNT	9	10	200	6	REG	-	MOD	-	-	
					042	62NW	JNT	8	999	-	1	REG	4°	MOD	-	-	
					165	59NE	JNT	2+	1.0	1.2	2	REG	-	MOD	-	-	
					103	60SW	VEN	5+	2.0	40	2	REG	-	MOD	QZ	MOD	2 cm QZ VEIN
					044	65NW	JNT	4+	999	-	1	REG	-	MOD	-	-	
				AM	140	90	JNT	5+	0.0	10	7	REG	-	MOD	-	-	c/w QZDI
				AM	044	72SE	FOL	1	999	35	2	IRR	-	RUF	-	-	
				QZDI	141	52SW	JNT	1	0.2	-	1	REG	-	MOD	-	-	c/w AM
				QZDI	045	64SE	JNT	2	0.0	-	1	IRR	5°	MOD	-	-	c/w AM
					175	40SW	JNT	2.5	2.0	10	2	IRR	3°	MOD	-	-	
					124	76NE	JNT	5.0	999	-	1	IRR	-	MOD	-	-	
					033	90	JNT	2.0	0.2	-	1	IRR	15°	MOD	-	-	QZ VEIN 10 cm WIDE

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P#	STATION N (m)	STATION E (m)	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	ALTERATION INT	REMARKS
TM0123	612110	65400	1035	QM	116	77SW	JNT	10+	0.1	2-10	6	REG	-	SMO	-	-	INTERSECTION MAIN CR w/ QZ MONZ CR 81-TM-19
					022	40SE	JNT	1.0+	0.1	-	1	MOD	-	SMO	-	-	
					067	84NW	JNT	1+	0.1	0.6	2	MOD	-	SMO	-	-	
					027	32SE	JNT	6+	0.1	0.3	9	MOD	-	SMO	-	-	
					068	88SE	JNT	0.3+	999	0.3	2	IRR	-	MOD	-	-	
					134	79SW	JNT	10+	0.2	0.3	2	REG	-	SMO	-	-	
					139	79SW	JNT	1	999	-	1	MOD	-	SMO	-	-	
					073	69SE	JNT	1	0.2	-	1	IRR	-	RUF	-	-	
					106	81SW	JNT	2+	0.1	0.2	2	MOD	-	RUF	-	-	
					074	55SE	JNT	1	0.2	0.2	2	IRR	-	RUF	-	-	
					048	26NW	JNT	3+	999	1-10	11	MOD	-	SMO	-	-	
					073	74SE	JNT	0.2+	999	-	1	MOD	-	SMO	-	-	
					126	75SW	JNT	10+	0.1	1	9	REG	-	SMO	-	-	
					132	80SW	JNT	7+	0.1	3.0	7	REG	-	SMO	-	-	
					021	84NW	JNT	2.5+	999	-	1	REG	-	SMO	-	-	
					026	42SE	JNT	3.0+	0.3	13	5	MOD	-	MOD	-	-	
					126	72SW	JNT	0.5	0.1	20	2	MOD	-	SMO	-	-	
					100	45NE	JNT	3.0	0.4	-	1	MOD	-	SMO	-	-	
					047	49SE	JNT	0.5	0.1	-	1	MOD	-	MOD	-	-	
					035	44SE	JNT	1.0	0.0	25	3	MOD	-	SMO	-	-	
					021	49SE	JNT	4.0+	0.1	20	4	MOD	-	SMO	-	-	
					021	56NW	JNT	2.0+	999	-	1	MOD	-	SMO	-	-	
					124	77SW	JNT	3.0+	0.3	13	3	MOD	-	SMO	-	-	
					012	50SE	JNT	1.0+	0.3	10	4	MOD	-	SMO	-	-	
					146	76SW	JNT	1.0+	0.1	9	7	MOD	-	SMO	-	-	
					090	81S	JNT	2.5+	0.1	10	4	MOD	-	SMO	-	-	
					052	39NW	JNT	0.6+	0.2	7	3	MOD	-	SMO	-	-	
					112	84NE	JNT	5+	0.0	15	9	IRR	-	SMO	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0123	612110	65400	1035	QM	058	75SE	JNT	0.3	0.1	-	1	MOD	-	MOD	-	-	INTERSECTION MAIN CK AND QZ MON CK
					105	56SW	JNT	0.3	999	-	1	MOD	-	MOD	-	-	
					025	34SE	JNT	3+	0.5	50	10	MOD	-	SMO	-	-	
					056	46NW	JNT	3+	0.1	10	11	MOD	-	SMO	-	-	
					034	45SE	JNT	8+	0.3	30	8	MOD	-	SMO	-	-	
					039	65SE	JNT	5+	0.6	25	3	MOD	-	MOD	-	-	
			1035	QM	152	73NE	JNT	2+	999	20	2	MOD	-	SMO	-	-	
					058	76NW	JNT	0.2+	0.2	4	2	MOD	-	MOD	-	-	
					056	85SE	JNT	0.2+	0.1	9	3	IRR	-	MOD	-	-	
					068	55NW	JNT	0.4	0.2	10	3	REG	-	MOD	-	-	
					177	65NE	JNT	5+	999	80	2	IRR	-	MOD	-	-	
					074	80NW	JNT	1.3	0.2	60	2	REG	-	MOD	-	-	
					022	62NW	JNT	3+	0.2	50	2	REG	-	MOD	-	-	
					178	90	JNT	3	999	90	3	MOD	-	MOD	-	-	
					053	43NW	JNT	3+	0.5	-	1	MOD	-	MOD	-	-	
					070	83SE	JNT	1	0.3	-	1	MOD	-	MOD	-	-	
					063	74NW	JNT	0.4	1.0	-	1	MOD	-	SMO	-	-	
					073	88SE	JNT	0.4	1.0	-	1	REG	-	SMO	-	-	
					064	50NW	JNT	2.0+	0.1	4	2	REG	2	MOD	-	-	
					020	70SE	JNT	2.0	999	-	1	IRR	-	MOD	-	-	
RK0108	612110	65390	1035	QM	033	51SE	JNT	9	0.3	90	7	REG	3°	MOD	-	-	SAMPLE 81-RK-3
					088	87NW	JNT	3	0.3	-	1	REG	-	MOD	-	-	
					107	52NE	JNT	2.5	0.4	40	6	REG	-	MOD	-	-	INTERSECTION MAIN CK AND QZ MONZ CK
					004	85SE	JNT	2+	999	-	1	REG	-	RUF	-	-	
					176	62NE	JNT	3+	999	-	1	REG	-	MOD	-	-	
					087	85SE	JNT	1+	0.2	-	1	REG	-	MOD	-	-	
					082	85SE	JNT	2.5+	0.4	35	2	REG	-	SMO	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
RK0108	612110	65390	1035	QM	082	85SE	JNT	2.5+	0.4	35	2	REG	-	SMO	-	-	
					049	49NW	JNT	3+	0.2	30	4	REG	-	SMO	-	-	
					038	87SE	JNT	3.5+	0.3	-	1	REG	-	MOD	-	-	
					018	77SE	JNT	2+	999	-	1	REG	-	MOD	-	-	
					029	50SE	JNT	5+	999	15	4	REG	-	MOD	-	-	
					041	50SE	JNT	1+	0.1	-	1	REG	-	MOD	-	-	
					005	85SE	JNT	2+	999	-	1	REG	-	MOD	-	-	
					061	48NW	JNT	2+	0.2	-	1	REG	-	MOD	-	-	
					033	56NW	JNT	7+	0.4	50	9	REG	-	SMO	-	-	
					170	77NE	JNT	6+	999	100	5	REG	-	MOD	-	-	
					047	47SE	JNT	7+	999	70	10	REG	-	MOD	-	-	
					009	56SE	JNT	2.5+	999	-	1	REG	-	MOD	-	-	
					075	37NW	JNT	0.3	999	20	2	MOD	-	MOD	-	-	
					150	61SW	JNT	3+	999	-	1	REG	-	SMO	-	-	
TM0124	612110	65390	1080	AND	024	84NW	JNT	2	1.0	-	1	IRR	-	RUF	-	-	**VENT**
					172	88NE	JNT	1.0	0.3	10	2	IRR	-	RUF	-	-	81-TM-20
					167	79SW	JNT	2+	0.1	60	2	REG	-	MOD	-	-	81-TM-21
					069	87NW	JNT	0.3	999	-	1	IRR	-	RUF	-	-	81-TM-22
					022	69NW	JNT	0.5	0.0	20	2	IRR	-	RUF	-	-	
					105	38NE	JNT	6+	0.1	2-20	17	REG	-	SMO	-	-	STRIATIONS DOWN DIP
					166	56SW	JNT	2	0.0	2	2	IRR	-	SMO	-	-	
					009	85NW	JNT	1	0.1	20	2	MOD	-	MOD	-	-	
					033	69SE	JNT	0.3	999	2-100	5	MOD	-	SMO	-	-	
					024	87NW	JNT	1.0	0.7	30	2	IRR	-	RUF	-	-	
					111	35NE	JNT	4+	0.1	15	6	REG	-	SMO	-	-	
					002	77NW	JNT	1.0	0.0	4-60	3	IRR	-	MOD	-	-	
					048	63SE	JNT	1.0	0.0	1.0	14	IRR	-	RUF	-	-	
					092	53NE	JNT	1.0	0.0	1-6	5	MOD	-	MOD	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0124	612055	65390	1080	AND	028	86NW	JNT	0.6	0.0	-	1	IRR	-	SMO	-	-	
					169	44SW	JNT	1.0+	0.1	5.0	2	IRR	-	MOD	-	-	
	612052	65388	1090	QM	012	79SE	JNT	5.0	0.0	1-4	4	MOD	-	MOD	-	-	
					132	81NE	JNT	1.0+	0.0	2.0	2	MOD	-	SMO	-	-	UP FROM VENT
					024	54SE	JNT	4.0+	0.1	-	1	MOD	-	-	-	-	
					167	52SW	JNT	1.0	0.1	-	1	MOD	-	RUF	-	-	
					118	90	JNT	1.0+	0.0	-	1	IRR	-	SMO	-	-	
					134	82SW	SHR	1.0+	0.0	-	1	MOD	-	SMO	CHL	MOD	
					143	68SW	VEN	1.0+	0.5	-	1	MOD	-	-	SIL	MOD	
					126	84NE	JNT	1.0+	0.0	2.0	3	MOD	-	SMO	CHL	MOD	<.1 cm
					127	79NE	JNT	1.0	0.0	-	1	MOD	-	SMO	-	-	
					055	63NW	JNT	0.3	0.0	-	1	REG	-	SMO	-	-	
					033	47NW	JNT	0.3	0.0	-	1	REG	-	SMO	-	-	
					050	55NW	FLT	2.0+	0.0	-	1	REG	-	SMO	SIL	HI	0.5 cm WIDE
					022	61NW	FLT	2.0+	0.0	4.0	2	REG	-	SMO	-	-	
					032	47SE	FLT	2.0+	0.1	2.0	15	REG	-	SMO	LM	HI	SHR ZONE ≅30 cm WIDE GRADING INTO EN ECHELON FRACTURES
					136	89SW	JNT	2.0+	<0.1	-	1	IRR	-	MOD	-	-	
					124	79NE	JNT	2.0	0.1	-	1	MOD	-	MOD	-	-	
					028	36SE	JNT	3.0+	0.1	10	3	MOD	-	MOD	-	-	
					083	86SE	JNT	1.0	0.1	-	1	IRR	-	RUF	-	-	
					122	88NE	JNT	1.0	0.1	3.0	2	MOD	-	SMO	-	-	
					044	47NW	JNT	2.0	0.1	30	5	MOD	-	MOD	-	-	
					177	88SW	JNT	1.0	0.1	2.0	2	IRR	-	-	-	-	
					083	55NW	JNT	1.0+	0.0	-	1	REG	-	MOD	-	-	
					128	90	JNT	2.0+	0.1	2-25	10	MOD	-	SMO	-	-	
					038	56SE	JNT	1.0	0.1	15	2	IRR	-	RUF	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0124	612052	65388	1090	QM	074	49SE	FLT	3+	0.3	-	1	MOD	-	MOD	-	-	DISPLACEMENT 20 cm LEFT LATERAL
					126	82NE	JNT	2.0	0.0	60-2	10	MOD	-	SMO	-	-	
					013	82SE	JNT	1.0	0.0	20	2	IRR	-	MOD	-	-	
					037	75SE	JNT	1.0	0.1	10	3	IRR	-	RUF	-	-	
					054	26NW	JNT	1.0+	999	-	1	REG	-	SMO	-	-	
					034	68SE	JNT	1.0	0.1	3.0	2	IRR	-	RUF	-	-	
					013	87NW	SHR	0.3+	0.5-1.5	4	5	REG	-	-	-	-	PARALLEL SHEAR ZONES 0.5-1.5 cm
					129	82NE	JNT	2.0+	0.1	10	6	MOD	-	MOD	-	-	
					036	38SE	JNT	2.0+	0.1	3-20	6	MOD	-	SMO	-	-	
					117	71NE	JNT	0.3	0.0	-	1	MOD	-	MOD	-	-	
					122	88SW	JNT	0.3	0.0	30	3	IRR	-	MOD	-	-	
					056	53NW	JNT	1+	0.1	40	2	MOD	-	MOD	-	-	
					132	82SW	JNT	1.0	0.1	-	1	MOD	-	SMO	-	-	
					001	76NW	JNT	1.0	999	-	1	IRR	-	RUF	-	-	
					103	69NE	JNT	1.0	0.1	-	1	MOD	-	MOD	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
RK0111	611665	64825	1470	RYDA	060	05SE	JNT	10+	1	4-100	10	REG	-	SMO	-	-	2nd PEAK LEFTSIDE GLACIER ABOVE FALL CR. CAMP.
					143	54NE	JNT	1	3	-	1	IRR	-	RUF	-	-	81-TM-23
					076	54SE	JNT	0.3	0.1	-	1	IRR	-	RUF	-	-	81-TM-24
					127	76NE	JNT	3+	0.5	15	3	MOD	-	MOD	-	-	
					122	87NE	JNT	0.3+	0.2	-	1	MOD	-	MOD	-	-	
					127	76SW	JNT	1	0.0	10	2	MOD	-	MOD	-	-	
					027	88SE	JNT	1	1	-	1	IRR	-	RUF	-	-	
					018	82SE	JNT	1.5	0.0	8	2	IRR	-	RUF	-	-	
					150	72NE	JNT	1+	0.5	1-10	5	MOD	-	MOD	-	-	
					129	72NE	JNT	2+	999	-	1	MOD	-	MOD	-	-	
					010	03SE	JNT	2+	0.0	100	2	REG	-	SMO	-	-	
					178	84NE	JNT	1	0.0	30	2	IRR	-	RUF	-	-	
					054	12NW	JNT	1+	999	-	1	REG	-	SMO	-	-	
					019	80SE	JNT	3+	0.3	-	1	MOD	-	MOD	-	-	
					100	84SW	JNT	1	0.0	-	1	IRR	-	RUF	-	-	
					113	74SW	JNT	2+	4	-	1	IRR	-	RUF	-	-	
					142	58NE	JNT	2+	999	-	1	IRR	-	RUF	-	-	
					032	88NW	JNT	1	0.0	-	1	MOD	-	-	-	-	
					030	75NW	JNT	1	0.0	-	1	MOD	-	-	-	-	
					103	14SW	JNT	6+	0.1	-	1	MOD	-	MOD	-	-	
					029	76SE	JNT	1	0.1	30	2	MOD	-	MOD	-	-	
					178	84NE	JNT	1	0.1	-	1	IRR	-	RUF	-	-	
					103	82SW	JNT	1+	0.3	4	2	IRR	-	RUF	-	-	
					018	76NE	JNT	1	0.1	0.2	2	IRR	-	RUF	-	-	
					102	90	JNT	1	0.8	10	4	MOD	-	RUF	-	-	
					018	83SE	JNT	2+	0.0	2-30	6	MOD	-	MOD	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
RK0111	611665	64825	1470	RYDA	103	04SW	JNT	4+	0.1	20-50	6	REG	-	MOD	-	-	
					022	72SE	JNT	3+	0.0	30	2	MOD	-	MOD	-	-	
					061	63SE	JNT	1	0.0	-	1	MOD	-	MOD	-	-	
					157	88NE	JNT	1+	0.0	30	2	MOD	-	MOD	-	-	
					030	83SE	JNT	1	0.0	-	1	MOD	-	RUF	-	-	
					151	88SW	JNT	1+	0.0	40	2	MOD	-	MOD	-	-	
					009	05SE	JNT	2	1	-	1	IRR	-	MOD	-	-	
					021	88NW	JNT	2	0.1	-	1	MOD	-	RUF	-	-	
					044	60NW	JNT	0.3+	999	20	2	IRR	-	RUF	-	-	
					158	81SW	JNT	1	0.0	30	2	REG	-	MOD	-	-	
					158	06SW	JNT	3	0.1	-	1	REG	-	SMO	-	-	
	611440	64460	1630	RYDA	135	82NE	JNT	-	-	-	-	-	-	-	-	-	MAIN JOINT IN COLUMN JOINT SET
					048	72SE	JNT	-	-	-	-	-	-	-	-	-	CUTS COLUMN INTO SHORT LENGTHS 1570 m COLUMNS PLUNGE 305/43
TM0134	611500	64400	1525	RYDA	179	81SW	JNT	2+	0.1	10	5	MOD	-	MOD	-	-	81-TM-25 LEFT SIDE OF
					096	58SW	JNT	1	0.0	15	6	IRR	-	MOD	-	-	GULLEY
					007	76SE	JNT	3+	0.2-1.0	50	3	MOD	-	MOD	-	-	81-TM-26 81-TM-27
					012	86SE	JNT	2+	0.1	30	3	MOD	-	MOD	-	-	
					100	45SW	JNT	0.3	0.0	10	6	MOD	-	MOD	-	-	
					089	63SE	JNT	3+	0.0	15	5	MOD	-	MOD	-	-	PARALLEL FLOW BANDING IN RHYODACITE FLOW
					015	80SE	JNT	2+	1	30	2	MOD	-	MOD	-	-	

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P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611500	64400	1525	RYDA	082	67SE	JNT	2+	0.1	10	7	MOD	-	MOD	-	-	PARALLEL FLOW BAND
					085	22NW	JNT	2	0.1	10	5	IRR	-	RUF	-	-	
					098	70SE	JNT	1+	0.0	15	7	MOD	-	MOD	-	-	PARA. FLOW BAND
					019	90	JNT	2+	999	-	1	IRR	-	MOD	-	-	
TM0135	611660	64500	1480	RYDA	140	88SW	JNT	20+	0.1	10	8	MOD	-	MOD	-	-	FLOW BANDING
					007	60SE	JNT	3+	0.1	20	2	MOD	-	MOD	-	-	81-TM-28
					025	61SE	JNT	0.3	0.1	-	1	MOD	-	MOD	-	-	
					106	31NE	JNT	1	999	-	1	MOD	-	MOD	-	-	
					152	78SW	JNT	30+	0.1	4-10	8	MOD	-	MOD	-	-	FLOW BANDING
					114	70SW	JNT	0.3+	0.1	15	2	IRR	-	RUF	-	-	
					096	88SW	JNT	0.3	0.1	20	2	IRR	-	RUF	-	-	
					060	87NW	JNT	0.3	999	-	1	MOD	-	RUF	-	-	
					053	42NW	JNT	1+	999	-	1	MOD	-	RUF	-	-	
					143	78SW	JNT	20+	0.1	2-8	12	MOD	-	MOD	-	-	FLOW BANDING
					054	31NW	JNT	0.3	999	-	1	REG	-	SMO	-	-	
					051	62NW	JNT	0.3	999	-	1	REG	-	SMO	-	-	
					027	57SE	JNT	0.2	1.0	-	1	REG	-	SMO	-	-	
					054	59SE	JNT	0.1	1.0	-	1	REG	-	RUF	-	-	
					057	47NW	JNT	0.3	999	-	1	REG	-	SMO	-	-	
					050	29NW	JNT	0.3	999	-	1	REG	-	SMO	-	-	
					156	73SW	JNT	15+	0.1	8	4	MOD	-	MOD	-	-	FLOW BANDING
					175	64NE	JNT	1	999	-	1	REG	-	MOD	-	-	
					153	46NE	JNT	0.3	999	-	1	MOD	-	MOD	-	-	
					065	78SE	JNT	0.1+	999	-	1	MOD	-	RUF	-	-	
	611680	64520	1460	RYDA	043	74NW	JNT	0.3+	0.0	1.0	2	REG	-	SMO	-	-	81-TM-29
					073	38NW	JNT	1+	0.0	-	1	REG	-	SMO	-	-	O.C. AREA AS ABOVE
					117	79SW	JNT	2+	0.0	10	3	MOD	-	MOD	-	-	FLOW BANDING
					122	77SW	JNT	2+	0.0	4	10	MOD	-	MOD	-	-	FLOW BANDING

LOCATION: FALL CREEK

DATE: 81-7-12

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
RK0111	611665	64500	1470	RYDA	090	85N	JNT	2.0	2.0	25	4	IRR	-	RUF	-	-	
					120	34NE	JNT	1+	999	-	1	IRR	-	MOD	-	-	
					101	51SW	JNT	1+	999	2	3	MOD	-	MOD	-	-	
					040	87SE	JNT	1.3	999	30	8	IRR	-	RUF	-	-	
					103	59SW	JNT	1+	0.3	20	5	IRR	-	MOD	-	-	
					106	66NE	JNT	0.4	999	-	1	IRR	-	MOD	-	-	
					161	47NE	JNT	0.3	999	40	2	IRR	-	RUF	-	-	
					095	26SW	JNT	0.4	999	15	3	IRR	-	RUF	-	-	
					025	11SE	JNT	0.5	0.0	-	1	IRR	-	MOD	-	-	
					173	29SW	JNT	0.25	0.2	3	4	MOD	-	MOD	-	-	
					094	74NE	JNT	0.4	0.1	12	4	MOD	-	MOD	-	-	
					127	70NE	JNT	7+	0.5	120	4	REG	-	SMO	-	-	FLT?
					003	35NW	JNT	1.0	0.0	7	4	MOD	-	MOD	-	-	
					166	21SW	JNT	1.0	999	-	1	MOD	-	RUF	-	-	
					093	31SW	JNT	1.0	0.1	18	2	MOD	-	MOD	-	-	
					124	69SW	JNT	1.2	0.2	-	1	MOD	-	MOD	-	-	
					132	46SW	JNT	3.0+	0.0	60	2	IRR	-	MOD	-	-	
					024	33NW	JNT	2.0	0.2	15	4	IRR	-	RUF	-	-	
					098	28SW	JNT	2.0	0.1	20	2	IRR	-	MOD	-	-	
					066	36SE	JNT	6+	0.3	10	4	MOD	-	SMO	-	-	
					126	76NE	JNT	2.0+	999	40	10	MOD	3°	MOD	-	-	
					076	10SE	JNT	4+	0.2	200	4	REG	-	SMO	-	-	
					050	80NW	JNT	2.0	999	15	4	MOD	-	RUF	-	-	
					155	46NE	JNT	2.0	0.2	35	3	MOD	-	MOD	-	-	
					108	43SW	JNT	1+	0.1	30	2	REG	-	MOD	-	-	
					130	54NE	JNT	1+	0.0	40	2	MOD	-	MOD	-	-	
					031	87SE	JNT	2+	999	70	4	MOD	-	MOD	-	-	
					135	68NE	JNT	2	2	25	4	MOD	-	MOD	-	-	

LOCATION: FALL CREEK

DATE: 81-7-12

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0134	611500	64400	1525	RYDA	011	81NW	JNT	7+	0.2	25	8	REG	-	MOD	-	-	
					098	68SW	JNT	4+	1.0	50	7	REG	-	MOD	-	-	
					080	56NW	JNT	3+	999	30	3	IRR	-	MOD	-	-	
					083	85NW	JNT	3+	999	30	4	IRR	-	MOD	-	-	
					099	83NE	JNT	6+	0.4	70	4	REG	-	MOD	-	-	
					106	61NE	JNT	3+	0.0	25	4	MOD	-	MOD	-	-	BEGINNING OF COLUMNAR JNT
					004	39NW	JNT	1+	999	15	5	MOD	-	MOD	-	-	
					005	75SE	JNT	1+	999	25	3	MOD	-	MOD	-	-	
					022	82SE	JNT	6+	999	50	4	MOD	-	MOD	-	-	
TM0135	611660	64500	1480	RYDA	021	81NW	JNT	1+	0.4	15	4	IRR	-	MOD	-	-	
					147	66SW	JNT	3+	0.0	20	3	MOD	-	RUF	-	-	
					060	86SE	JNT	3+	999	30	3	MOD	-	MOD	-	-	
			1480	RYDA	131	83SW	JNT	1.5+	1.5	25	3	MOD	-	MOD	-	-	
					040	74NW	JNT	1.5+	999	25	2	MOD	-	MOD	-	-	
					021	73NW	JNT	0.3+	999	30	3	MOD	-	MOD	-	-	
					046	87NW	JNT	2+	0.3	15	6	MOD	-	MOD	-	-	
					133	88NE	JNT	2+	0.0	15	6	MOD	-	MOD	-	-	
					034	81NW	JNT	0.2	0.0	-	1	MOD	-	SMO	-	-	
					110	84NE	JNT	0.2	0.0	-	1	MOD	-	MOD	-	-	
					124	80NE	JNT	2+	999	25	3	IRR	-	MOD	-	-	
					015	89NW	JNT	2.0	0.2	10	11	MOD	-	MOD	-	-	
					122	60SW	JNT	1.0	0.0	3	6	MOD	-	MOD	-	-	
					001	77SE	JNT	1+	0.1	2	3	IRR	-	MOD	-	-	
					113	74NE	JNT	0.4	999	-	1	IRR	-	MOD	-	-	

LOCATION: FALL CREEK

DATE: 81-7-13

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0200	611945	64438	1430	RYDA	127	78SW	JNT	0.3	0.0	-	1	MOD	-	RUF	-	-	81-TM-30
					136	87NE	JNT	0.3	0.1	-	1	IRR	-	RUF	-	-	
					127	67SW	JNT	0.3	0.2	30	2	MOD	-	MOD	-	-	
					021	82SE	JNT	1	0.0	3-100	4	IRR	-	RUF	-	-	
					005	38NW	JNT	1	0.1	-	1	IRR	-	RUF	-	-	
					048	63SE	JNT	1	0.1	-	1	IRR	-	RUF	-	-	
					062	87NW	JNT	0.1	0.1	-	1	IRR	-	RUF	-	-	
					102	80NE	JNT	0.6	0.1	-	1	IRR	-	SMO	-	-	
					132	87SW	JNT	1	0.1	60	2	MOD	-	RUF	-	-	
					012	78NW	JNT	0.3	0.1	4	2	IRR	-	RUF	-	-	
					127	73SW	JNT	2	0.0	-	1	IRR	-	RUF	-	-	
					021	88SE	JNT	1+	999	-	1	REG	-	MOD	-	-	
					106	34SW	JNT	4+	0.6	-	1	REG	-	MOD	-	-	
					103	64NE	JNT	1+	0.1	-	1	REG	-	MOD	-	-	
					076	59SE	JNT	1	0.0	-	1	IRR	-	MOD	-	-	
					114	84SW	JNT	1	0.0	-	1	IRR	-	RUF	-	-	
					150	88NE	JNT	1	0.0	-	1	IRR	-	RUF	-	-	
					103	23SW	JNT	1	0.1	-	1	IRR	-	RUF	-	-	
					118	75SW	JNT	1	0.2	-	1	IRR	-	RUF	-	-	
					153	89NE	JNT	2	0.1	-	1	MOD	-	MOD	-	-	
					126	75NE	JNT	5+	0.2	0.4	3	REG	-	MOD	-	-	PARALLEL FLOW BANDING
					119	32SW	JNT	2	0.4	-	1	MOD	-	RUF	-	-	
					085	69NW	JNT	0.3	0.1	-	1	MOD	-	RUF	-	-	
					112	60SW	JNT	0.2	0.4	-	1	MOD	-	MOD	-	-	
					060	86SE	JNT	0.3	0.2	-	1	MOD	-	SMO	-	-	
					033	83SE	JNT	0.3	0.1	-	1	MOD	-	SMO	-	-	
					102	72SW	JNT	2+	0.1	-	1	IRR	-	MOD	-	-	
					080	47SE	JNT	2	0.1	-	1	IRR	-	RUF	-	-	

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DATE: 81-7-13

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611945	64438	1430	RYDA	032	73NW	JNT	2	0.1	-	1	IRR	-	MOD	-	-	
					047	79NW	JNT	2+	999	-	1	IRR	-	MOD	-	-	
					170	47SW	JNT	1	0.1	30	3	IRR	-	RUF	-	-	
TM0201	611800	63730	1705	RYDA	176	54SW	JNT	1+	0.0	15	3	IRR	-	RUF	-	-	81 - TM - 31
					057	76SE	JNT	0.3+	999	-	1	IRR	-	RUF	-	-	
					176	71NE	JNT	1+	999	50	2	IRR	-	RUF	-	-	
					059	88NW	JNT	0.3	0.0	5	3	IRR	-	RUF	-	-	
					053	73SE	JNT	0.1	0.1	20	2	IRR	-	RUF	-	-	
					036	56NW	JNT	0.3	0.1	-	1	IRR	-	RUF	-	-	
					173	46SW	JNT	2+	0.1	3	10	REG	-	RUF	-	-	
					064	83NW	JNT	10+	0.1	30	4	REG	-	MOD	-	-	
					178	49SW	JNT	1	0.1	8	6	REG	-	RUF	-	-	
					084	67NW	JNT	1	0.1	-	1	IRR	-	RUF	-	-	
					064	78NW	JNT	10+	0.1	25	5	MOD	-	MOD	-	-	
					027	82NW	JNT	0.4	0.0	-	1	MOD	-	RUF	-	-	
					152	56SW	JNT	0.3	0.0	-	1	IRR	-	RUF	-	-	
					027	75NW	JNT	0.2	0.0	-	1	MOD	-	RUF	-	-	
					172	63SW	JNT	0.2	0.0	-	1	MOD	-	RUF	-	-	
					050	86SE	FLT	20+	2.0	1	3	REG	-	MOD	-	-	LOCALLY SHEARED
					042	86SE	FLT	0.6	0.0	-	1	REG	-	SMO	-	-	LOCALLY SHEARED
					167	51SW	JNT	1+	0.1	10	3	REG	-	MOD	-	-	
					118	86NE	JNT	1	0.8	-	1	IRR	-	RUF	-	-	
					111	88NE	JNT	1	0.1	-	1	MOD	-	RUF	-	-	
					176	63SW	JNT	3+	0.1	10	4	MOD	-	RUF	-	-	
					108	84SW	JNT	1+	0.2	-	1	IRR	-	RUF	-	-	
					058	85NW	FLT	4+	0.1	-	1	REG	-	SMO	CHL	MOD	LINEATION 243/50
					172	47SW	JNT	1+	0.0	-	1	REG	-	RUF	-	-	

LOCATION: FALL CREEK

DATE: 81-7-13

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611800	63730	1706	RYDA	169	60SW	JNT	0.4	0.0	-	1	MOD	-	RUF	-	-	
					035	49SE	JNT	0.3	0.0	-	1	MOD	-	MOD	-	-	
					068	84NW	JNT	20+	0.1	30	5	MOD	-	MOD	-	-	
					160	61SW	JNT	0.3	0.0	-	1	MOD	-	RUF	-	-	
					139	32NE	JNT	0.3	0.0	-	1	MOD	-	SMO	-	-	
					114	80SW	JNT	1	0.0	30	2	MOD	-	MOD	-	-	
					063	86SE	JNT	20+	0.0	15-30	3	REG	-	SMO	-	-	
					170	80NE	JNT	0.3	0.0	8	3	MOD	-	MOD	-	-	
					086	89SE	JNT	6	0.0	15	3	MOD	-	MOD	-	-	
					072	80SE	JNT	20+	0.0	25	8	MOD	-	SMO	-	-	
					173	63SW	JNT	0.3	0.0	10	9	MOD	-	RUF	-	-	
					081	81SE	JNT	20+	0.0	25	4	MOD	-	SMO	-	-	
TM0203	612065	64250	1480	RYDA	167	81SW	JNT	0.6	1.0	-	1	MOD	-	RUF	-	-	81 - RK - 4
					010	60SE	JNT	0.3	0.5	-	1	IRR	-	RUF	-	-	
					103	66SW	JNT	0.8	0.0	-	1	IRR	-	RUF	-	-	
					162	77SW	JNT	2.0	1.0	-	1	MOD	-	RUF	-	-	
					159	81NE	JNT	2.0+	1.0	-	1	MOD	-	RUF	-	-	
					071	69SE	JNT	2.0	0.0	-	1	IRR	-	RUF	-	-	
					025	83NW	JNT	2.0	0.0	-	1	IRR	-	RUF	-	-	
					016	90	JNT	2.0	0.0	-	1	MOD	-	RUF	-	-	
					148	77SW	JNT	0.3	0.0	10	3	IRR	-	RUF	-	-	
					086	90	JNT	2.0	0.0	20	3	MOD	-	RUF	-	-	
					060	86SE	JNT	3.0	0.0	-	1	IRR	-	RUF	-	-	
					067	88SE	JNT	4.0	0.0	-	1	MOD	-	RUF	-	-	
					082	87SE	JNT	3.0	0.0	-	1	MOD	-	RUF	-	-	
					025	84NW	JNT	1.0	0.0	-	1	IRR	-	RUF	-	-	
					130	45SW	JNT	1.0	0.0	-	1	IRR	-	RUF	-	-	
					076	60SE	JNT	0.3	0.0	-	1	IRR	-	RUF	-	-	
					125	88NE	JNT	0.3	0.0	-	1	MOD	-	RUF	-	-	
TM0204	612240	64400	1440	RYDA	111	86SW	JNT	2+	1	60	8	REG	-	MOD	-	-	81 - TM - 32
					109	57SW	JNT	2+	1	60	5	REG	-	MOD	-	-	
					120	43NE	JNT	2+	1	60	3	REG	-	MOD	-	-	
					011	87NW	JNT	3+	2	100	4	MOD	-	MOD	-	-	CUTS OFF COLUMNS

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P#	STATION N (m)	STATION E (m)	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	ALTERATION INT	REMARKS
TM0201	611945	64438	1430	RYDA	128	54NE	JNT	1.5	2.0	-	1	IRR	10°	MOD	-	-	OCRE WEATHER
					134	74NE	JNT	11	1.0	150	3	IRR	15°	MOD	-	-	
					033	42NW	JNT	0.5+	0.5	-	1	MOD	-	MOD	-	-	
					027	82SE	JNT	0.5+	1.0	20	2	MOD	-	MOD	-	-	
					014	72NW	JNT	0.5	0.3	80	2	MOD	-	MOD	-	-	
					010	63NW	JNT	2.0	0.0	50	3	IRR	5°	MOD	-	-	
					163	72SW	JNT	1.5	0.2	30	2	MOD	-	MOD	-	-	
					122	71NE	JNT	1.0	1.0	25	2	IRR	5°	MOD	-	-	
					145	50NE	JNT	1.0	1.5	15	3	IRR	5°	MOD	-	-	
					096	89NE	JNT	2.0	1.0	-	1	IRR	-	MOD	-	-	
					148	88NE	JNT	4+	1.0	-	1	IRR	-	MOD	-	-	
					030	49NW	JNT	4.0	2.0	30	4	IRR	-	MOD	-	-	
					149	64NE	JNT	1+	1.3	100	2	IRR	-	RUF	-	-	
					029	75NW	JNT	2.5	999	-	1	IRR	-	RUF	-	-	
					166	41SW	JNT	1+	0.8	20	2	MOD	-	MOD	-	-	
					175	89NE	JNT	1.0	999	35	2	MOD	-	MOD	-	-	
					115	86NE	JNT	1+	1.0	100	2	IRR	-	RUF	-	-	
					160	81SW	JNT	2.0	1.5	-	1	MOD	-	RUF	-	-	
					081	40NW	JNT	0.5	1.0	30	2	MOD	-	RUF	-	-	
					142	25SW	JNT	1.2	0.3	40	2	MOD	-	MOD	-	-	
					156	65NE											FLOW BANDING
					008	66SE	JNT	0.5	0.3	-	1	MOD	-	MOD	-	-	
					087	72NW	JNT	0.3	0.1	-	1	MOD	3°	MOD	-	-	
					032	78NW	JNT	0.5	0.4	-	4	IRR	-	MOD	-	-	
					143	82NE	JNT	5+	0.5	35	2	IRR	-	MOD	-	-	
					056	45NW	JNT	0.3	999	80	2	IRR	-	RUF	-	-	
					049	77SE	JNT	2.0	999	120	2	MOD	-	MOD	-	-	OCRE WEATHER
					165	66NE	JNT	6.0	1.0	90	2	IRR	-	MOD	-	-	OCRE WEATHER
					048	50NW	JNT	2.0	0.4	-	1	IRR	-	MOD	-	-	
					010	85SE	JNT	2.0	0.0	-	1	IRR	-	MOD	-	-	
					057	72SE	JNT	1.0	0.3	-	1	IRR	-	MOD	-	-	
					032	85SE	JNT	0.4	0.0	-	1	MOD	-	MOD	-	-	
					132	78SW	JNT	5+	0.3	-	1	MOD	-	MOD	-	-	
					130	82SW	JNT	0.5	0.0	-	1	MOD	-	MOD	-	-	

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P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611802	63731	1705	RYDA	158	60SW											FLOW BANDING
					064	87SE	JNT	11+	0.3	30	7	MOD	-	MOD	-	-	
					007	61NW	JNT	0.3	0.2	30	4	REG	-	MOD	-	-	
					177	57SW	JNT	4+	0.0	30	8	REG	-	MOD	-	-	
					092	70SW	JNT	2+	0.1	20	6	MOD	-	MOD	-	-	
					090	84S	JNT	1+	0.2	25	4	MOD	-	MOD	-	-	
					166	81SW	JNT	0.5+	999	10	3	MOD	-	MOD	-	-	
					168	83NE	JNT	0.5+	0.0	10	4	REG	-	MOD	-	-	
					061	85SE	JNT	5+	0.3	20	9	MOD	-	MOD	-	-	
					166	46SW	JNT	3+	0.1	18	9	REG	-	MOD	-	-	
					076	83SE	JNT	1+	0.2	12	3	REG	-	MOD	-	-	
					082	86SE	JNT	0.7+	0.5	20	2	IRR	-	MOD	-	-	
					089	89NW	JNT	2+	0.1	120	2	MOD	-	MOD	-	-	
					079	61NW	JNT	2+	999	50	3	MOD	-	RUF	-	-	
					152	41NE	JNT	1+	999	20	3	IRR	-	MOD	-	-	
					075	71NW	JNT	2.5+	1.0	25	3	MOD	-	MOD	-	-	
					173	55SW	JNT	2.5+	0.2	10	3	MOD	-	MOD	-	-	
					075	82NW	JNT	2+	0.3	25	3	MOD	-	MOD	-	-	
					151	62NE	JNT	1+	999	20	2	IRR	-	MOD	-	-	
					057	84NW	JNT	2+	999	30	3	MOD	-	MOD	-	-	
					145	30SW	JNT	0.5+	0.3	-	1	MOD	-	MOD	-	-	
					167	57SW	JNT	3.0+	0.4	30	4	MOD	-	MOD	-	-	
					074	83SE	JNT	4+	0.3	30	6	MOD	-	MOD	-	-	
TM0203	612065	64250	1480	RYDA	032	90	JNT	2+	999	-	1	IRR	-	RUF	-	-	81-RK-4 ROCK SAMPLE
					122	78NE	JNT	1.0	999	-	1	IRR	-	RUF	-	-	
					110	85NE	JNT	1.0	999	-	1	IRR	-	RUF	-	-	
					038	88NW	JNT	1	999	-	1	IRR	-	RUF	-	-	
					148	90	JNT	1	0.0	25	2	IRR	-	RUF	-	-	

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DATE: 81-7-13

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	612065	64250	1480	RYDA	166	84NE	JNT	0.4+	999	20	4	IRR	-	RUF	-	-	
					160	87NE	JNT	0.6	999	30	3	MOD	-	MOD	-	-	
					024	56NW	JNT	0.3+	999	30	2	MOD	-	MOD	-	-	
					125	66SW	JNT	0.4+	0.5	10	2	MOD	-	RUF	-	-	
					050	81NW	JNT	0.3+	999	-	1	MOD	-	RUF	-	-	
					025	53SE	JNT	2.5	1.5	12	3	IRR	-	RUF	-	-	
					026	87NW	JNT	2+	1.0	30	3	IRR	-	RUF	-	-	
					143	59SW	JNT	0.3+	0.0	-	1	IRR	-	RUF	-	-	
					053	78SE	JNT	3	999	-	1	IRR	-	RUF	-	-	
TM0204	612260 with 612240	64357 64400	1430	RYDA	103	41SW	JNT	0.7+	0.3	30	3	MOD	-	SMO	-	-	
					005	80SE	JNT	7+	999	10	3	MOD	-	MOD	-	-	
					093	77SW	JNT	7+	0.5	30	8	MOD	-	MOD	-	-	
					082	28NW	JNT	5+	0.1	70	5	MOD	-	SMO	-	-	
					083	14NW	JNT	0.5	0.0	10	2	MOD	-	MOD	-	-	
					091	44NE	JNT	0.4+	0.3	15	2	MOD	-	SMO	-	-	
					089	59SE	JNT	0.3+	0.1	25	6	MOD	-	SMO	-	-	
					071	33NW	JNT	0.7+	0.0	100	2	MOD	-	SMO	-	-	
					097	78NE	JNT	2+	0.7	25	7	MOD	-	MOD	-	-	
					087	21SE	JNT	0.8	0.2	35	3	MOD	-	MOD	-	-	
					089	48SE	JNT	2+	0.1	15	5	MOD	-	SMO	-	-	
					078	80SE	JNT	0.5+	0.4	20	6	MOD	-	MOD	-	-	

LOCATION: FALL CREEK

DATE: 81-7-14

P#	STATION N (m)	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TMO214	611800	65250	1205	QM	038	67SE	JNT	4+	0.1	2-8	10	REG	-	SMO	LM	MOD	81-TM-35
					128	70SW	JNT	4+	0.1	1-10	17	REG	-	SMO	LM	LOW	81-TM-36
					080	34NW	JNT	4+	0.1	10	5	MOD	-	SMO	LM	LOW	QTZ. MONZ. CK.
					152	81SW	JNT	4+	0.1	0.5-2	10	MOD	-	SMO	LM	LOW	
					111	43NE	JNT	1	0.1	20	3	IRR	-	SMO	-	-	
					045	39SW	JNT	1	0.1	-	1	REG	-	SMO	-	-	
					162	73SW	JNT	0.3	0.1	-	1	IRR	-	SMO	LM	LOW	
					028	57SE	JNT	3+	0.1	8	4	REG	-	SMO	LM	MOD	
					147	82SW	JNT	3+	0.1	5	9	REG	-	SMO	LM	LOW	
					170	12NE	JNT	1	0.1	20	3	MOD	-	SMO	LM	LOW	
					008	84SE	JNT	0.2	0.1	-	1	REG	-	SMO	LM	LOW	
					022	58SE	JNT	0.6+	0.1	10	2	REG	-	SMO	LM	MOD	
					080	47NW	JNT	0.3	0.1	1	2	MOD	-	MOD	LM	LOW	
					160	44NE	JNT	0.3	0.1	30	2	REG	-	SMO	LM	LOW	
					146	81SW	JNT	4+	0.1	1-10	10	REG	-	SMO	LM	LOW	
					040	72SE	JNT	1	999	-	1	REG	-	SMO	LM	LOW	
					055	76SE	JNT	1	999	-	1	MOD	-	MOD	LM	MOD	
					074	71SE	JNT	0.3	999	-	1	MOD	-	MOD	LM	HI	
					052	60SE	JNT	2+	999	1-10	3	MOD	-	MOD	LM	MOD	
					147	85SW	JNT	2+	0.1	1-25	9	REG	-	MOD	LM	MOD	
					058	32NW	JNT	3+	0.1	10-30	7	MOD	-	MOD	LM	MOD	
					138	45NE	JNT	1	0.1	20	2	REG	-	SMO	LM	LOW	
					154	56NE	JNT	0.2	0.0	-	1	MOD	-	MOD	LM	HI	
					120	25NE	JNT	0.2	0.6	-	1	IRR	-	MOD	LM	LOW	
					076	67NW	JNT	0.1	999	-	1	IRR	-	MOD	LM	LOW	
					178	42NE	JNT	0.1	999	10	2	MOD	-	MOD	LM	LOW	
					062	41NW	JNT	1	0.1	25	2	MOD	-	SMO	LM	LOW	
					148	61SW	JNT	0.1	0.2	-	1	IRR	-	RUF	LM	LOW	
					066	43NW	JNT	0.5+	0.1	10	3	MOD	-	MOD	?	?	
					014	54SE	JNT	0.5+	0.1	8	2	MOD	-	SMO	LM	HI	CLOSER TO VOLC. AGGLOMERATE 10 m AWAY

LOCATION: FALL CREEK

DATE: 81-7-14

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611800	65250	1205	QM	053	39SE	JNT	2+	999	5	3	REG	-	SMO	LM	MOD	
					149	86SW	JNT	4+	999	8	10	MOD	-	SMO	LM	MOD	
					038	51NW	JNT	2+	0.1	-	1	REG	-	MOD	?	?	
					073	36NW	JNT	2+	0.1	2+	5	REG	-	MOD	LM	LOW	
					092	78SW	JNT	0.1+	999	-	1	MOD	-	MOD	LM	LOW	
					177	81SW	JNT	1+	0.1	2	2	MOD	-	MOD	LM	MOD	
					042	42NW	JNT	0.3+	0.1	2	3	MOD	-	MOD	?	?	5 m FROM VOLC. AGGLOMERATE
					162	58NE	JNT	0.3+	999	-	1	REG	-	SMO	LM	HI	
					156	88NE	JNT	0.2+	0.1	-	1	MOD	-	SMO	LM	LOW	
					010	77NW	JNT	0.2+	999	-	1	MOD	-	SMO	LM	LOW	
					154	66NE	JNT	0.2+	999	-	1	REG	-	SMO	LM	HI	
					050	62SE	JNT	0.2+	999	-	1	MOD	-	MOD	LM	HI	
	611785	65240	1215	RYDA	141	51NE	DYK	15+	150	-	1	IRR	-	MOD	-	-	SAMPLE 81-RK-5
				RYDA	148	86NE	JNT	1.5	0.2	40	7	REG	-	MOD	-	-	
				RYDA	061	90	JNT	1.5	0.1	20	4	MOD	-	MOD	-	-	
				RYDA	084	79NW	JNT	1.5	0.3	25	5	MOD	-	MOD	-	-	
				RYDA	002	16NW	JNT	0.7	0.1	50	4	MOD	-	MOD	-	-	
RK0119	611735	65180	1225	HNFS	126	84SW	BED	5+	0.0	0.8	99	MOD	-	MOD	-	-	
RK0120					115	80SW	JNT	7+	2.0	100	5	MOD	-	MOD	-	-	//-lel BED
					024	90	JNT	2+	999	40	4	REG	-	MOD	-	-	SAMPLE 81-RK-7
					080	52NW	JNT	0.2	999	-	1	REG	-	SMO	-	-	
					003	54SE	JNT	0.5+	999	20	4	MOD	-	MOD	-	-	
					117	89SW	JNT	2+	0.0	5	4	MOD	-	MOD	-	-	
					051	78NW	JNT	0.4+	999	100	2	MOD	-	MOD	-	-	
					091	69NE	JNT	0.4+	999	-	1	MOD	-	MOD	-	-	
					166	69SW	JNT	0.4+	0.0	15	3	MOD	-	MOD	-	-	
					074	45NW	JNT	0.5+	0.0	5	14	REG	-	SMO	-	-	

LOCATION: FALLS CREEK

DATE: 81-7-14

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611735	65180	1225	HNFS	114	45NE	JNT	0.4+	0.0	10	4	REG	-	SMO	-	-	
					124	90	JNT	2+	0.1	15	3	MOD	-	MOD	-	-	
					154	65NE	JNT	0.3+	999	10	4	MOD	-	MOD	-	-	
					129	72NE	JNT	1.5+	0.1	12	3	REG	-	SMO	-	-	
					077	40NW	JNT	1+	0.0	10	5	REG	-	SMO	-	-	
					020	89SE	JNT	8+	999	50	4	REG	-	SMO	-	-	
					069	24NW	JNT	1+	0.0	10	3	MOD	-	SMO	-	-	
					028	88SE	JNT	3+	0.4	15	10	REG	-	SMO	-	-	
					109	82SW	BED	2+	0.0	0.8	99	REG	-	MOD	-	-	
					109	82SW	JNT	3+	999	80	8	MOD	-	MOD	-	-	PARALLEL BEDDING
					059	48NW	JNT	2+	0.1	13	22	REG	-	SMO	-	-	
					028	35SE	JNT	2+	0.0	30	9	MOD	-	MOD	-	-	
					054	41NW	JNT	2+	0.0	5	8	REG	-	MOD	-	-	
					175	77SW	JNT	1+	0.0	30	3	REG	-	MOD	-	-	
					020	87SE	JNT	2+	999	20	3	MOD	-	MOD	-	-	
					103	27NE	JNT	5+	0.1	20	5	MOD	-	MOD	-	-	
					019	86SE	JNT	2.5+	1.0	100	3	REG	-	MOD	-	-	
					069	71NW	JNT	2+	0.1	10	2	REG	-	SMO	-	-	
					119	29NE	JNT	2+	0.1	5	9	REG	-	SMO	-	-	
					127	85SW	JNT	2+	0.2	5	7	REG	-	MOD	-	-	
					136	65SW	SHR	5+	0.0	25	3	REG	-	MOD	-	-	

LOCATION: FALL CREEK

DATE: 81-7-16

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	613710	64607	1010	RYDA	040	65NW	JNT	1+	999	12	4	IRR	-	RUF	-	-	
					097	48NE	JNT	0.2	999	-	1	IRR	-	RUF	-	-	
					062	77SE	JNT	0.3	999	-	1	IRR	-	RUF	-	-	
					147	69SW	JNT	0.3	999	-	1	MOD	-	MOD	-	-	
					158	24NE	JNT	1	0.2	-	1	IRR	-	MOD	-	-	
					111	35NE	JNT	1+	999	15	2	MOD	-	MOD	-	-	
					056	74SE	JNT	0.2	999	-	1	IRR	-	RUF	-	-	
					082	66SE	JNT	0.2	999	8	2	IRR	-	RUF	-	-	
					102	20NE	JNT	2	999	-	1	MOD	-	MOD	-	-	
					038	88NW	JNT	4+	0.3	8	6	IRR	-	RUF	-	-	EXFOLIATION JTS.
					128	32NE	JNT	2+	999	-	1	MOD	-	MOD	-	-	
					122	53SW	JNT	1+	0.2	80	2	MOD	-	MOD	-	-	
					124	54SE	JNT	0.3	0.1	15	2	MOD	-	MOD	-	-	
					112	88SW	JNT	0.3	999	-	1	IRR	-	MOD	-	-	
					115	71SW	JNT	0.3	999	-	1	IRR	-	RUF	-	-	
					083	71SE	JNT	1	0.0	-	1	MOD	-	RUF	-	-	
					178	79SW	JNT	1+	0.0	-	1	MOD	-	RUF	-	-	
					121	79SW	JNT	1+	999	30	4	MOD	-	MOD	-	-	
					123	26NE	JNT	1+	999	3	3	MOD	-	MOD	-	-	
					006	84NW	JNT	3+	0.3	20	8	IRR	-	RUF	-	-	
					134	40SW	JNT	2.5+	0.1	4	2	MOD	-	MOD	-	-	
					063	41SE	JNT	3.0	0.0	20	4	MOD	-	MOD	-	-	
					119	58SW	JNT	1+	0.0	35	2	MOD	-	MOD	-	-	
					154	83SW	JNT	0.5+	999	10	2	MOD	-	RUF	-	-	
					082	30NW	JNT	0.3	0.0	4	4	IRR	-	MOD	-	-	
					133	76SW	JNT	0.5+	0.0	40	6	IRR	-	MOD	-	-	
					074	58SE	JNT	0.4	999	10	4	IRR	-	RUF	-	-	
					122	45NE	JNT	8+	0.1	4	27	IRR	-	MOD	-	-	
					015	77NW	JNT	8+	999	80	5	IRR	-	RUF	-	-	
					118	48SW	JNT	5+	0.2	50	6	MOD	-	MOD	-	-	
					047	74SE	JNT	0.5+	999	40	3	MOD	-	MOD	-	-	
					176	87NE	JNT	0.4+	0.5	15	3	MOD	-	MOD	-	-	
					024	80SE	JNT	8+	0.5	35	5	IRR	-	RUF	-	-	

LOCATION: Affliction Creek

DATE: 81-8-23

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
RK0216	613200	59774	930	RYDA	091	69NE	JNT	3+	999	40	2	REG	-	MOD	-	-	
					174	88NE	JNT	2+	0.4	5	3	REG	-	SMO	-	-	81-RK-12
					158	66NE	JNT	0.5+	0.2	3	2	REG	-	SMO	-	-	
					167	70NE	JNT	2+	0.1	40	6	REG	-	SMO	-	-	
					175	88NE	JNT	2+	2.5	-	1	REG	-	SMO	-	-	
					159	64NE	JNT	1+	0.0	5	4	REG	-	MOD	-	-	
					173	71NE	JNT	1+	0.1	4	7	REG	-	SMO	-	-	
					177	82NE	JNT	0.5	0.1	1	4	REG	-	MOD	-	-	
					076	55NW	JNT	3+	0.2	30	5	REG	-	MOD	-	-	
					171	76SW	JNT	3+	0.4	100	2	REG	-	SMO	-	-	
					023	77SE	JNT	1	999	10	3	REG	-	SMO	-	-	
					171	79NE	JNT	1+	0.0	3	3	REG	-	MOD	-	-	
					168	75NE	JNT	2+	0.2	20	5	REG	-	SMO	-	-	
					086	75NW	JNT	2+	999	15	2	REG	-	MOD	-	-	
					061	32NW	JNT	0.3+	0.2	40	2	REG	-	SMO	-	-	
					139	90	JNT	0.5	1.0	10	2	REG	-	SMO	-	-	
					028	39NW	JNT	0.4	0.0	5	5	REG	-	SMO	-	-	
					170	80SW	JNT	2+	999	-	1	REG	-	SMO	-	-	
					054	79SE	JNT	0.3+	999	20	2	REG	-	MOD	-	-	
					022	75SE	JNT	2+	999	10	2	REG	-	SMO	-	-	
					166	37NE	JNT	1+	999	-	1	REG	-	SMO	-	-	
					093	49NE	JNT	1	0.2	10	2	REG	-	SMO	-	-	
					155	90	JNT	2+	0.2	5	6	REG	-	SMO	-	-	
					145	73SW	JNT	1+	0.1	50	3	REG	-	MOD	-	-	
					115	49NE	JNT	1	0.2	20	2	REG	-	SMO	-	-	
	613200	59775	930	AM	152	60NE	JNT	3+	999	40	2	REG	-	MOD	-	-	
RK0217					080	27NW	JNT	1	0.0	30	9	REG	-	SMO	-	-	
RK0218					054	75SE	JNT	6+	999	30	4	REG	-	MOD	EP	LOW	Contact
					175	23SW	VEN	1+	0.0	-	1	MOD	-	MOD	EPQZ	HI	5cm thick
					167	70SW	JNT	2+	0.0	-	1	REG	-	MOD	-	-	
					079	21NW	JNT	2+	0.0	15	6	REG	-	SMO	-	-	

LOCATION: Affliction Creek

DATE: 81-8-23

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
RK0218	613200	59775	930	AM	104	56NE	JNT	2+	0.2	20	2	REG	-	SMO	-	-	
					047	2NW	JNT	1+	0.0	2	12	REG	-	SMO	-	-	
					154	52SW	JNT	0.5+	0.0	5	5	REG	-	SMO	-	-	
					090	30N	JNT	2+	0.2	30	6	REG	-	MOD	-	-	81-RK-14
	613030	59725		HNFS	080	54NW	FLT	5+	0.3	-	1	IRR	-	RUF	-	-	0.8m wide
					157	56NE	FLT	1+	999	-	1	REG	-	SMO	EP	LOW	Slickensides Down Dip
	613030	59725	970		109	67NE	FOL	2.5+	999	-	1	MOD	-	RUF	-	-	
			990		115	69NE	FOL	6+	999	-	1	REG	-	SMO	-	-	
	613035	59725			034	38NW	VEN	2	0.0	-	1	MOD	-	-	QZ	HI	Wedge 5cm thick
	612880	59725	1015	QZTE	106	67NE	FOL	4+	0.0	-	1	REG	-	-	-	-	
RK0219					113	58NE	FOL	4+	0.3	5	14	REG	-	SMO	-	-	
				AND	125	57NE	DYK	10+	0.0	-	1	MOD	-	MOD	-	-	11-lel Foliation
				AND	020	43NW	JNT	0.5	0.1	5	20	MOD	-	MOD	-	-	AND DYKE
																	81-RK-15
																	81-RK-16
				QZTE	052	87NW	JNT	4+	0.1	10	7	REG	-	SMO	-	-	
RK0220					145	46SW	JNT	0.4+	0.2	30	11	REG	-	SMO	-	-	
					142	24SW	JNT	7+	0.5	100	4	REG	-	SMO	-	-	
					014	74SE	JNT	7+	999	-	1	IRR	-	MOD	-	-	
					159	39SW	JNT	2+	0.0	20	3	REG	-	SMO	-	-	
					039	25NW	JNT	9+	0.2	-	1	REG	-	SMO	-	-	
					160	26SW	JNT	3+	0.2	30	2	REG	-	SMO	-	-	
					149	88SW	JNT	1+	0.3	20	5	REG	-	MOD	-	-	
					129	81SW	JNT	2+	0.3	15	4	REG	-	MOD	-	-	
	613200	59775	940	AM	026	69SE	JNT	2+	999	-	1	REG	-	SMO	-	-	81-TM-40
					150	62NE	JNT	3+	0.4	10	2	REG	-	SMO	-	-	
					152	73NE	JNT	3+	0.2	10	3	REG	-	SMO	-	-	
					112	61NE	JNT	3+	0.3	7	3	REG	-	SMO	-	-	
					077	86SE	JNT	0.3	999	-	1	MOD	-	SMO	-	-	
					002	89SE	JNT	2+	999	-	1	REG	-	SMO	-	-	

LOCATION: Affliction Creek

DATE: 81-8-23

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
RK0220	613200	59775	940	AM	152	89SW	JNT	0.4+	0.2	2.5	2	MOD	-	MOD	-	-	
					152	65NE	JNT	0.3+	0.2	15	2	REG	-	SMO	-	-	
					032	64NW	JNT	2+	0.0	-	1	MOD	-	SMO	-	-	
					077	82SE	JNT	1+	999	-	1	IRR	-	RUF	-	-	
					111	64NE	JNT	0.3+	999	-	1	REG	-	SMO	-	-	
					092	24NE	JNT	1	0.0	10	4	IRR	-	-	-	-	
					066	78SE	JNT	0.3+	0.0	-	1	REG	-	SMO	-	-	
					039	74SE	JNT	1.5+	0.0	5	3	IRR	-	SMO	-	-	
					027	80SE	FLT	2+	0.1	-	1	REG	-	SMO	CHL CAL GYP	MOD	Slicks poor
					032	84SE	FLT	1+	0.2	1	2	REG	-	SMO			Slicks poor
					041	83NW	JNT	0.3+	0.1	-	1	REG	-	SMO	-	-	
					178	39SW	JNT	3+	0.1	20	4	MOD	-	MOD	-	-	
					044	74SE	FLT	1+	0.1	60	2	IRR	-	MOD	CHL CAL GYP	MOD	
					144	80NE	FLT	1+	0.0	-	1	IRR	-	MOD	CHL CAL GYP	MOD	
					054	83SE	JNT	1+	0.1	-	1	MOD	-	MOD	-	-	
					087	83NW	JNT	1+	0.1	-	1	MOD	-	MOD	-	-	
					059	80NW	FLT	0.3+	999	-	1	REG	-	MOD	EP CHL CAL GYP	MOD	Poor slicks
					036	62SE	FLT	1+	999	-	1	MOD	-	MOD	EP CHL CAL GYP	MOD	Poor slicks

LOCATION: Affliction Creek

DATE: 81-8-23

P#	STATION N (m)	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	613200	59775	940	AM	162	52NE	FLT	1+	999	-	1	REG	-	SMO	CHL	MOD	Poor Slicks
					153	47NE	FLT	1+	999	-	1	REG	-	MOD	CHL LIM	MOD	
					143	63NE	JNT	1+	999	40	2	IRR	-	MOD	-	-	
					152	86SW	VEN	1+	0.1	-	1	MOD	-	-	QZ	-	STRIAE DOWN DIP
					146	24SW	VEN	3+	0.8	-	1	REG	-	MOD	QZ	-	
					146	24SW	JNT	3+	0.1	30	2	REG	-	MOD			
					159	88SW	DYK	3	5-15		1	IRR		-	-		DK BRN ANDES 81-TM-41 SIMILAR DYKE 10' DOWN HILL
TM0301																	
	613200	59774		RYDA	128	29SW	JNT	3+	0.1	1	25	REG	-	SMO	-	-	
					116	83SW	JNT	1+	0.1	8	3	MOD	-	MOD	-	-	
					112	87NE	JNT	1+	0.1	-	1	MOD	-	MOD	-	-	
					159	88SW	JNT	1+	999	10	3	MOD	-	MOD	-	-	
					141	87NE	JNT	1+	999	8	2	MOD	-	MOD	-	-	
					070	77SE	CON	-	-	-	-	-	-	-	-	-	DIAB-RYO DAC. Rhydac chilled @ contact; Dyke 12' wide
TM0302																	
	613030	59726	970	AM	080	76SE	FLT	3+	999	-	1	REG	-	SMO	CHL EP	-	Striations horiz. Grad. finer grained to horafels
																	Just above 970m & below hel. Setout. 1) folm 052/86SE? 2) 121/49NE folm? w/parallel bedding.
			1000	QZTE	041	73SE	JNT	1+	999	-	1	REG	-	SMO	EP	HI	

LOCATION: Affliction Creek

DATE: 81-8-23

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	613030	59725	970	HNFS	121	49NE	FOL	-	-	-	-	-	-	-	-	-	-
					121	49NE	BED	-	-	-	-	-	-	-	-	-	-
	613035	59725	990	AM	128	74NE	FOL	-	-	-	-	-	-	-	-	-	M-g
	613015	59705	995	HNFS	129	84NE	BED	-	-	-	-	-	-	-	-	-	Thin Beds 81-TM-42
	612985	59730	997	QZTE	122	71NE	BED	-	-	-	-	-	-	-	-	-	Thin Beds
	612965	59730	1000	QZTE	107	90	BED	-	-	-	-	-	-	-	-	-	Thin Beds

LOCATION: Affliction Creek

DATE: 81-8-23

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0304	612880	59725	1015	QZTE	062	21NW	JNT	1	0.1	10	3	MOD	-	MOD	-	-	81-TM-43
					126	42SW	JNT	0.3	0.2	5	2	MOD	-	MOD	-	-	
					131	57SW	JNT	3+	999	-	1	REG	-	SMO	-	-	
					142	47SW	JNT	2+	0.0	30	2	REG	-	SMO	-	-	
					103	76NE	JNT	0.3	0.0	-	1	IRR	-	RUF	-	-	
					131	63SW	JNT	1+	0.0	-	1	REG	-	SMO	-	-	
					132	45SW	JNT	1+	0.0	-	1	REG	-	SMO	-	-	
					040	87NW	JNT	1	0.0	-	1	IRR	-	RUF	-	-	
					143	44SW	JNT	3+	0.2	30	2	REG	-	SMO	-	-	
					136	69SW	JNT	0.3	0.1	-	1	REG	-	SMO	-	-	
					048	78SE	JNT	0.3	0.0	15	4	MOD	-	SMO	-	-	
					038	86NW	JNT	0.3	0.0	-	1	MOD	-	MOD	-	-	
					116	83NE	JNT	1	0.0	30	2	IRR	-	RUF	-	-	
					132	78SW	JNT	1	0.0	-	1	MOD	-	MOD	-	-	
					112	53NE	JNT	0.3+	999	-	1	REG	-	MOD	-	-	
					121	85NE	JNT	0.3+	999	-	1	REG	-	MOD	-	-	
					123	84SW	JNT	0.2+	999	-	1	REG	-	MOD	-	-	
					117	64NE	JNT	0.2+	999	-	1	MOD	-	MOD	-	-	
					132	77NE	JNT	0.2+	999	-	1	MOD	-	MOD	-	-	
					157	22SW	JNT	4+	0.1	-	1	REG	-	SMO	-	-	
					005	25SE	JNT	1	0.1	-	1	MOD	-	MOD	-	-	
					127	87SW	JNT	1	0.1	20	3	REG	-	MOD	-	-	
					033	85SE	JNT	0.3	999	20	2	MOD	-	MOD	-	-	
					125	58SW	JNT	4+	0.2	4-50	6	REG	-	SMO	-	-	
					148	42SW	JNT	1+	0.3	30	3	REG	-	SMO	-	-	
					042	68NW	JNT	0.3	0.2	20	4	MOD	-	MOD	-	-	
					046	68SE	JNT	0.3	0.0	2	2	MOD	-	MOD	-	-	
					018	84SE	JNT	0.5	999	-	1	IRR	-	RUF	-	-	

LOCATION: Above M-4 and M-6

DATE: 81-8-25

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602070 (approx.)	63600	965	QZDI	126	67SW	FOL	-	-	-	-	-	-	-	-	-	ABOVE M4
					138	68SW	FOL										
					112	75SW	FOL										
					108	74SW	FOL										
					112	75SW	FOL										
					144	73SW	FOL										
					112	76SW	FOL										
					108	72SW	FOL										
					128	76SW	FOL										
					130	62SW	FOL										
					109	68SW	FOL										
					123	79SW	FOL										
					108	69SW	FOL										
					124	78SW	FOL										
	602520 (approx.)	63915	995	QZDI	125	78SW	FOL										
					082	28NW	FOL										
					076	28NW	FOL										
					105	12NE	FOL										
					102	43NE	FOL										
					028	70SE	FOL										
					094	16NE	FOL										
	602130 (approx.)	63970	910	QZDI	048	18SE	FOL										
					112	44SW	FOL										
					063	33NW	FOL										
TM0309	602435	64295	930	QZDI	133	49SW	FOL										MAFIC BORDER PHASE Above M-6 , O.C.5
				HNFS	104	43SW	FOL										
	602485	64270	930	QZDI	031	43NW	FOL										BORDER, O.C.5 MAFIC
	602515	64295	930	QZDI	158	69SW	FOL										60m up hill from head of gulley O.C.(6)

LOCATION: Above M6

DATE: 81-8-25

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602515	64295	970	QZDI	124	69SW	FOL										81-RK-16
					123	60SW	FOL										
					131	45SW	FOL										

LOCATION: Above M6

DATE: 81-8-26

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602305	64370	935	GRN	156	40SW	FOL										O.C. (1) PHEN OF PLAG 053° from large Rig Just below 100NE; 100NE is on ridge Small O.C.- Porph. Few in some horiz. numerous in others.
	602330	64350	960	GRN	126	30SW	FOL										O.C. (2) Just below ridge crest Spotty amph. porph plag. 81-TM-48
					130	51SW	FOL										
					111	47SW	FOL										
					153	44SW	FOL										
					147	30SW	FOL										
	602380	64340	965	GRN	107	40SW	FOL										O.C. (3) Looks like meta-gywacke
					154	37SW	FOL										
					125	46SW	FOL										
					128	51SW	FOL										
					122	46SW	FOL										
					148	47SW	FOL										
	602405	64330	965	GRN	114	42SW	FOL										O.C. (4) Looks like meta-gywacke
					117	45SW	FOL										
					137	42SW	FOL										
					102	45SW	FOL										
					123	42SW	FOL										

LOCATION: Above M6

DATE: 81-8-26

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602405	64330	965	GRN	130	44SW	FOL										O.C. (4) Similar to others but fewer plag. porph. 81-TM-49
					133	36SW	FOL										
					117	44SW	FOL										
					147	37SW	FOL										
					122	32SW	FOL										
					124	47SW	FOL										
	602435	64295	970	GRN	154	41SW	FOL										O.C. (5) Similar to above but looks more like altered Diorite
					122	49SW	FOL										
					127	42SW	FOL										
					142	41SW	FOL										
					144	49SW	FOL										
					132	46SW	FOL										
					146	51SW	FOL										
					142	43SW	FOL										Base of O.C. 970m
					153	52SW	FOL										
					132	36SW	FOL										
					122	58SW	FOL										
					147	54SW	FOL										
					032	34SW	FOL										
	602500	64290		QZDI	142	31SW	FOL										O.C. (6)
					006	19NW	FOL										
					174	36SW	FOL										
					020	53NW	FOL										
					153	28SW	FOL										

LOCATION: Above M6

DATE: 81-8-26

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602500	64290		QZDI	162	32SW	FOL										
					167	37SW	FOL										
					022	90	FLT	12+	999	-	1	REG	-	RUF	-	-	
					178	35SW	FOL										Ridge Top 1080m
					163	27SW	FOL										
					152	56SW	FOL										
	602305	64370	935	GRN	135	46SW	FOL										
					148	32SW	FOL										
	602330	64350	960	GRN	128	46SW	FOL										
					126	39SW	FOL										
					123	41SW	FOL										
					126	40SW	FOL										
	602380	64340	965	GRN	138	50SW	FOL										
					148	52SW	FOL										
					142	41SW	FOL										
					144	50SW	FOL										
					104	34SW	FOL										
					106	40SW	FOL										
					111	49SW	FOL										
					133	54SW	FOL										
					118	45SW	FOL										
					133	37SW	FOL										
					147	39SW	FOL										
					116	35SW	FOL										
					112	50SW	FOL										
	602435	64295	1000	GRN	112	30SW	FOL										
					130	32SW	FOL										
					134	48SW	FOL										
					155	46SW	FOL										
				RY	144	51SW	FOL										TUFF
				GRN	132	46SW	FOL										

LOCATION: Above M-6

DATE: 81-8-26

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602435	64295	1000	GRN	144	49SW	FOL										
					120	53SW	FOL										
					135	52SW	FOL										
					142	42SW	FOL										
					145	34SW	FOL										
					148	40SW	FOL										
					156	40SW	FOL										
					151	41SW	FOL										
					150	48SW	FOL										
					155	60SW	FOL										
					109	16NE	FOL										
					102	46SW	FOL										
					140	51SW	FOL										
					122	46SW	FOL										
					122	45SW	FOL										
					146	30SW	FOL										
					136	35SW	FOL										
					110	54SW	FOL										
					109	54SW	FOL										
					130	35SW	FOL										
					122	53SW	FOL										
					119	50SW	FOL										
					109	52SW	FOL										
					135	37SW	FOL										
					128	38SW	FOL										
					103	43SW	FOL										

LOCATION: Above M-6

DATE: 81-8-27

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602070	64670	900	GN	147	49SW	FOL										81-TM-51
																	WELL FOL
																	O.C. (1)
					032	37NW	FOL										
					078	34NW	FOL										
					016	50NW	FOL										
					120	59NW	FOL										
					126	54NW	FOL										
					124	67NW	FOL										
					082	51NW	FOL										
	602175	64630	910	DI	015	86SE	FOL										81-TM-52
																	MOD to poorly
																	Fol. Dio
																	O.C. (2)
					015	64NW	FOL										
					179	76SW	FOL										
	602440	65050	1060	DI	055	22SE	FOL										ALTERED
																	MOD FOL
																	81-TM-53
																	O.C. (3)
					138	68SW	FOL										
					079	80NW	FOL										
					047	66NW	FOL										O.C. (3)
					080	34NW	FOL										
					086	34NW	FOL										
					038	26NW	FOL										CREEK @ 1000m
	602200	65110	990	GN	088	85NW	FOL										O.C. (4)
																	81-TM-54
				AND	088	86NW	DYK										In Canyon Bottom
																	ALTERED AND.
																	DYKE. Pre Meager
				GN	092	84NW	FOL										

LOCATION: Above M-6

DATE: 81-8-27

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602180	65130	990	QZDI	084	35NW	FOL										O.C. (5) At waterfall and steep cliff East lip of Canyon
	602150	65130	990	QZDI	112	70NW	FOL										East lip of Canyon
					097	22NW	FOL										
					083	35NW	FOL										
					042	32NW	FOL										
	601970	65110	970	GN	148	44SW	FOL										
				GN	117	89SW	FOL										East Lip of Canyon to 950 on Canyon Rim. O.C. (6)
				QZTE	036	82NW	FOL										B10. PLAG.
				GN	152	60NE	FOL										
				GN	144	90NE	FOL										
				GN	177	22NE	FOL										
				GN	120	21SW	FOL										
			Near end of O.C. of gneiss in Cr. gulley @ 840 m														
	601900	65050	840	QZDI	097	22NE	FOL										IN CK. GULLEY O.C. (7)
					074	24NE	FOL										
					138	45SW	FOL										
					174	24SW	FOL										
					132	58NE	FOL										
	602070	64670	890	GN	168	43NE	FOL										
					169	24NE	FOL										
					014	17NW	FOL										
					152	26SW	FOL										
					173	51SW	FOL										
					157	77SW	FOL										
					168	80SW	FOL										
					149	76SW	FOL										

LOCATION: Above and East of M-6

DATE: 81-8-27

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602070	64670	890	GN	132	48SW	FOL										
					093	67NE	FOL										
					117	76SW	FOL										
					136	72NE	FOL										
					122	50NE	FOL										
					150	28SW	FOL										
					105	56NE	FOL										
					102	39NE	FOL										
					170	84SW	FOL										
	602175	64630	918	DI	152	82SW	FOL										
					145	67SW	FOL										
					165	55SW	FOL										
					030	86SE	FOL										
					125	39NE	FOL										
					168	87SW	FOL										
					170	75NE	FOL										
	602440	65050	1060	QZDI	005	90	FOL										
					113	38SW	FOL										
					145	77SW	FOL										
					157	81SW	FOL										
					052	90	FOL										
					127	87SW	FOL										
					119	68SW	FOL										
					026	82SE	FOL										
TM0318	602150	65130	990	QZDI	140	60SW	FOL								EP	HI	VEN 4 cm Relatively constant trend
					137	40SW	FOL										
					153	42SW	FOL										
					145	62SW	FOL										
					082	62SW	FOL										
					168	38SW	FOL										
					130	62SW	FOL								EP	HI	VEN 3 cm
					173	69SW	FOL										

LOCATION: East of M-6

DATE: 81-8-27

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	602150	65130	990	QZDI	133	59SW	FOL										RIDGE
					087	38SE	FOL										
TM0319	601970	65110	980	GN	072	28NW	FOL										
					178	65NE	FOL										
					090	10S	FOL										
					060	15NW	FOL										
					130	37NE	FOL										
					132	36NE	FOL										
	601970	65100	950	GN	146	65SW	FOL										
					108	85SW	FOL										
					174	41NE	FOL										
					105	22NE	FOL										
					092	29NE	FOL										
					104	52NE	FOL										

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0321	607560	71530	420	GN	023	82NW	JNT	2+	999	1-25	4	REG	-	MOD	-	-	81-TM-56
TM0321	All Fault Striations Vertical Unless Otherwise Indicated																
					010	82SE	FLT	1+	999	-	1	REG	-	SMO	LM	LOW	
					008	82NW	JNT	1	999	-	1	MOD	-	MOD	LM	LOW	
					082	59SE	JNT	0.8	999	-	1	REG	-	MOD	LM	LOW	
					166	83SW	JNT	0.2	999	-	1	MOD	-	MOD	-	-	
					072	78SE	FOL										
					087	53SE	JNT	0.2	999	5	6	MOD	-	SMO	-	-	
					111	79SW	FLT	1+	0.0	-	1	IRR	-	MOD	-	-	
					074	86SE	JNT	1+	999	-	1	IRR	-	RUF	-	-	
					137	87NE	FOL										
					137	87NE	JNT	1+	0.1	10	3	IRR	10°	RUF	-	-	fol
					128	28SW	JNT	0.2	0.1	-	1	MOD		MOD	-	-	
					147	71SW	JNT	0.3	0.1	-	1	IRR	-	RUF	-	-	
					114	81SW	JNT	0.2	999	-	1	MOD	-	MOD	-	-	
					127	80SW	JNT	0.3	0.0	-	1	IRR	-	RUF	-	-	
					117	65NE	FLT	0.8+	999	-	1	REG	-	SMO	LM	HI	
					173	73NE	JNT	0.2	999	-	1	MOD	-	MOD	LM	MOD	
					117	76NE	FLT	0.6+	999	-	1	MOD	-	MOD	-	-	
					003	79NW	JNT	1	0.0	-	1	MOD	-	MOD	-	-	
					005	82NW	JNT	1	0.1	5	3	REG	-	MOD	-	-	
					140	79NE	JNT	0.2+	999	30	3	MOD	-	MOD	-	-	
					176	78SW	FLT	3+	999	100	2	MOD	-	SMO	LM	HI	
					005	87SE	FLT	3+	999	8	4	REG	-	SMO	LM CHL	HI	
					024	79NW	FLT	2+	0.5	-	1	REG	-	MOD	LM	MOD	Striat. 017/46
					021	08SE	JNT	1+	0.0	10	4	IRR	-	RUF	-	-	
					097	83SW	FOL										
					007	70NW	JNT	0.3	999	15	5	IRR	-	RUF	LM	MOD	
					149	84SW	FLT	1	999	-	1	MOD		SMO	LM	MOD	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607060	71125	425	HNFS	028	82SE	FLT	1.0+	999	-	1	REG	-	MOD	LM	MOD	81-TM-57
					008	67NW	FLT	1.0+	999	80	3	REG	-	SMO	LM	LOW	
	607040	70780	525	HNFS	024	82SE	FLT	3.0+	999	-	1	REG	-	SMO	LM	LOW	
					006	88SE	JNT	0.3+	999	30	2	REG	-	SMO	LM	LOW	
					040	81NW	JNT	0.3	999	8	2	REG	-	MOD	-	-	
					001	89SE	JNT	0.3	999	-	1	REG	-	MOD	LM	LOW	
					016	70NW	JNT	1.0+	0.0	-	1	REG	-	SMO	LM	LOW	
					148	48SW	JNT	1.0+	1.0	-	1	MOD	-	-	CA	HI	FRACT. FILLING
					004	43NW	JNT	1.0+	1.0	-	1	MOD	-	-	CA	HI	FRACT. FILLING
					160	67SW	JNT	0.3+	0.1	1.0	16	REG	-	MOD	-	-	
					179	82NE	FLT	1.0+	1.0	-	1	MOD	-	MOD	LM	LOW	
					094	86SW	JNT	0.1	999	-	1	MOD	-	MOD	-	-	
					102	55SW	FLT	1.0	999	-	1	MOD	-	MOD	LM	LOW	STRIAE 156/53
					037	41NW	JNT	0.3+	0.1	5	2	REG	-	SMO	LM	LOW	
					032	59NW	FLT	1.0+	0.1-15	-	1	MOD	-	-	QZ	HI	FRACT. FILLING (POD)
					036	87SE	FLT	2.0+	999	60	2	MOD	-	MOD	LM	LOW	
					134	85NE	FLT	0.3+	2.0	60	2	MOD	-	MOD	-		SHEAR ZONE
					112	53SW	JNT	1.0+	999	-	1	MOD	-	SMO	LM	HI	
					024	76NW	FLT	2.0+	999	25	3	MOD	-	SMO	LM	LOW	
					038	82SE	FLT	1.0+	999	-	1	REG	-	SMO	-	-	
					108	56SW	JNT	0.3	1.0	-	1	MOD	-	SMO	-	-	
					156	77SW	JNT	0.3	0.0	10	2	MOD	-	MOD	-	-	
					033	76NW	JNT	0.3	0.0	10	2	REG	-	SMO	-	-	
					014	79NW	JNT	2.0+	999	100	2	REG	-	SMO	LM	LOW	
	607520	71020	570	GRN	028	76NW	JNT	1.0+	999	-	1	REG	-	SMO	LM	LOW	81-TM-58
TM0322	608125	70705	535	GRN	092	61NW	JNT	1.0+	999	-	1	REG	-	MOD	LM	MOD	
					162	87NE	JNT	0.5+	999	5	2	IRR	-	RUF	LM	HI	
					117	38SW	JNT	0.3+	0.1	12	3	IRR	-	RUF	-	-	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	608125	70705	535	GRN	041	89NW	JNT	0.3	0.2	-	1	IRR	-	RUF	LM	MOD	
					037	64NW	FLT	1.0+	0.1	-	1	REG	-	MOD	LM	MOD	STRIAE 007/53
					097	52NE	JNT	0.3	0.1	1.0	2	MOD	-	MOD	LM	MOD	
					009	59SE	FLT	0.3	0.1	-	1	MOD	-	MOD	LM	MOD	
					053	82SE	JNT	0.3	0.1	1.0	2	MOD	-	MOD	LM	MOD	
					028	87NW	JNT	0.3	0.0	-	1	REG	-	MOD	LM	MOD	
					024	73NW	JNT	0.3	0.1	-	1	REG	-	MOD	LM	MOD	
					031	68SE	JNT	0.6	0.1	-	1	MOD	-	MOD	LM	MOD	
					096	73SW	JNT	0.2	0.1	5.0	2	IRR	-	RUF	LM	MOD	
					023	84NW	JNT	1.0+	0.1	30	2	MOD	-	SMO	LM	MOD	
					096	76NE	JNT	0.3+	0.0	10.0	2	IRR	-	MOD	LM	MOD	
					063	65NW	JNT	0.3+	0.1	2.0	4	IRR	-	MOD	-	-	
					170	47NE	FLT	1.0+	999	40.0	2	MOD	-	MOD	LM	MOD	STRIAE 083/46
					107	83SW	JNT	0.2+	0.0	2.0	3	IRR	-	RUF	LM	LOW	
					175	84NE	JNT	1.0+	1.0	60	2	MOD	-	MOD	-	-	
					001	56SW	JNT	0.2	1.0	-	1	MOD	-	SMO	LM	MOD	
					031	49NW	JNT	0.2	999	-	1	REG	-	MOD	-	-	
					174	73NE	JNT	0.2+	999	-	1	REG	-	MOD	-	-	
					134	80SW	JNT	0.2+	999	1.0	2	MOD	-	MOD	LM	HI	
					062	32NW	JNT	0.2	0.1	-	1	REG	-	MOD	LM	MOD	
					019	23NW	JNT	0.2+	0.1	-	1	REG	-	MOD	LM	MOD	
	607520 (approx.)	70800	645	GRN	017	79NW	JNT	0.6+	999	-	1	REG	-	MOD	-	-	
					007	63SE	FLT	1.0+	999	-	1	MOD	-	MOD	LM	MOD	STRIAE 138/62
					104	48NE	JNT	1.0	999	-	1	MOD	-	MOD	-	-	
					019	78SE	JNT	1.0+	999	-	1	MOD	-	MOD	LM	MOD	
	607450 (approx.)	70640	690	GRN	032	88SE	JNT	1.0+	0.3	20	4	REG	-	SMO	LM	LOW	
					031	72NW	JNT	1.0+	0.2	20	2	REG	-	MOD	LM	LOW	
					117	83NW	JNT	1.0+	0.0	10	3	MOD	-	MOD	LM	LOW	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607450 (approx.)	70640	690	GRN	034	61NW	JNT	0.3+	1.0	18	2	MOD	-	SMO	LM	MOD	
					015	68SE	JNT	0.3+	999	-	1	MOD	-	SMO	LM	LOW	
					113	74SW	JNT	1.0	999	-	1	IRR	-	RUF	LM	LOW	
					027	89SE	JNT	1.0+	999	-	1	REG	-	SMO	-	-	
					004	73NW	JNT	1.0+	0.1	4.0	2	MOD	-	MOD	LM	LOW	
					176	47SW	JNT	0.6+	0.1	-	1	MOD	-	MOD	-	-	
					128	73SW	JNT	0.8+	999	-	1	IRR	-	RUF	LM	LOW	
					004	79NW	JNT	0.3+	0.0	-	1	REG	-	SMO	-	-	
					112	78SW	JNT	0.2+	999	10	2	IRR	-	RUF	LM	LOW	
					122	75SW	JNT	0.3+	999	-	1	IRR	-	MOD	-	-	
					007	74NW	JNT	0.3+	0.0	30	2	REG	-	MOD	LM	MOD	
					127	90	JNT	0.2+	0.0	0.5	2	MOD	-	MOD	LM	MOD	
					015	76NW	JNT	1.0+	0.1	2.0	3	MOD	-	MOD	-	-	
					112	78SW	JNT	0.3	999	3.0	2	MOD	-	MOD	LM	MOD	
					021	89SE	JNT	0.1+	999	-	1	MOD	-	MOD	-	-	
					014	74NW	JNT	0.2+	999	-	1	REG	-	SM	-	-	
					140	47NE	JNT	1.0+	0.1	-	1	MOD	-	MOD	-	-	
					100	78SE	JNT	1.0	999	-	1	IRR	-	RUF	LM	MOD	
					177	73SW	JNT	1.0+	0.0	-	1	REG	-	MOD	LM	MOD	
	607870 (approx.)	70540	800	GRN	130	85SW	FOL										
					010	73NW	JNT	3.0+	999	30	4	MOD	-	MOD	LM	MOD	
					080	78NW	JNT	2.0+	0.5	40	3	MOD	-	MOD	-	-	
	607660 (approx.)	70450	815	GRN	007	46NW	JNT	3.0+	0.1	50	2	REG	-	SMO	-	-	
					028	90	JNT	6.0+	999	50	6	REG	5°	SMO	-	-	
					174	48NE	JNT	10.0+	999	20	2	REG	-	MOD	-	-	
					090	46N	JNT	3.0+	0.4	50	2	REG	-	SMO	LM	LOW	
	607500 (approx.)	70300	840	GRN	030	71SE	JNT	4.0+	999	-	1	REG	-	SMO	-	-	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607500	70300	840	GRN	121	64SW	FOL	-	-	-	-	-	-	-	-	-	
					129	70SW	FOL	-	-	-	-	-	-	-	-	-	
					129	70SW	JNT	1.5+	0.3	40	2	REG	-	SMO	LM	HI	
					024	84SE	FLT	3.0+	999	-	1	MOD	-	SMO	CHL	LOW	
					014	40NW	JNT	2.5+	0.1	100	2	REG	-	SMO	LM	LOW	
					017	59NW	JNT	5.0+	0.2	4-206	6	REG	-	SMO	-	-	
					095	26NE	JNT	2.0	0.1	-	1	REG	-	SMO	-	-	
					004	75NW	JNT	3.0+	0.3	8-60	10	REG	-	SMO	LM	MOD	
					094	55NE	JNT	2.0	0.1	-	1	REG	-	SMO	-	-	
					015	69SE	JNT	4.0+	999	40	2	REG	-	SMO	-	-	
					004	74NW	JNT	5+	999	40	5	REG	-	SMO	LM	LOW	
					178	34NE	JNT	5+	999	120	2	REG	-	SMO	LM	LOW	
					088	85NW	JNT	5+	999	70	5	REG	-	SMO	LM	LOW	
	607515	69990	975	LST	142	81SW	BND	5+	0.1	-	-	REG	-	-	-	-	PARALLEL INTRUSIVE CONTACT

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607560	71530	420	GN	012	75SE	JNT	3+	999	30	2	REG	-	MOD	LM	MOD	
					012	64NW	JNT	1	999	10	5	REG	-	SMO	LM	MOD	LIL. R.
					137	77SW	JNT	0.3+	999	3	3	REG	-	MOD	LM	MOD	
					027	22NW	JNT	0.3	0.3	15	3	MOD	-	MOD	-	-	
					071	70SE	JNT	0.5	0.1	25	2	REG	-	MOD	-	-	
					013	53NW	JNT	1.3+	0.1	3	2	MOD	-	MOD	-	-	
					120	69SW	JNT	0.6+	999	2	3	IRR	-	MOD	-	-	
					119	82SW	JNT	1	999	-	1	MOD	-	MOD	-	-	
					104	77NE	JNT	1+	0.1	10	2	MOD	-	MOD	-	-	
					114	89SW	FOL										
					096	62NE	FOL										
					102	86SW	FOL										
					143	90	FOL										
					146	85SW	FOL										
					097	62SW	FOL										
					131	83SW	FOL										
					124	83SW	FOL										
					134	70SW	JNT	2+	999	1.3	2	MOD	-	MOD	LM	MOD	
					175	71SW	JNT	1.5+	999	20	3	REG	-	MOD	LM	LOW	
					020	86SE	JNT	0.5+	0.0	5	5	REG	-	MOD	-	-	
					018	67NW	JNT	1	0.1	20	2	REG	-	SMO	-	-	
					138	52NE	JNT	2+	999	50	3	REG	-	MOD	-	-	
					018	90	JNT	1	999	15	3	REG	-	SMO	-	-	
					004	86SE	JNT	4+	999	50	4	REG	-	MOD	-	-	
					116	47NE	JNT	6+	999	150	4	REG	-	MOD	LM	MOD	
					010	89SE	JNT	1+	0.0	10	5	REG	-	MOD	LM	LOW	
					179	68SW	JNT	2+	999	20	4	REG	-	SMO	LM	LOW	
	607060	71125	425	HNFS	155	87SW	FOL										
					025	47NW	JNT	1+	0.2	30	2	REG	-	SMO	-	-	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION N (m)	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607040	70780	525	HNFS	037	81SE	FLT	7+	0.1	-	1	REG	-	SMO	CHL	MOD	
					037	81SE	JNT	4+	0.1	30	6	REG	-	SMO	-	-	
					000	37E	JNT	1.5+	999	-	1	REG	-	SMO	-	-	
					022	40NW	JNT	2+	0.4	-	1	REG	-	SMO	-	-	
					021	67NW	JNT	1+	2.5	25	2	REG	-	SMO	-	-	
					025	69NW	JNT	3+	0.4	20	3	REG	-	SMO	-	-	
					125	50NE	JNT	2+	0.0	25	7	REG	-	SMO	-	-	
					127	82SW	JNT	2+	0.2	25	5	MOD	-	SMO	-	-	
					150	80SW	FOL										
					030	88SE	JNT	1+	999	15	4	REG	-	SMO	-	-	
					028	60NW	JNT	1+	0.3	15	3	REG	-	SMO	-	-	
					039	83SE	JNT	1+	0.0	-	1	REG	-	MOD	-	-	
					028	71NW	JNT	1+	0.4	10	3	REG	-	MOD	-	-	
					032	62NW	JNT	2+	0.1	5	3	REG	-	SMO	-	-	
					024	69NW	JNT	1+	0.1	3	4	REG	-	SMO	-	-	
					154	87NE	FOL										
					154	87NE	JNT	0.5	0.0	10	3	MOD	-	MOD	-	-	
					156	70NE	JNT	0.5+	0.1	15	3	MOD	-	MOD	-	-	
					163	76SW	FOL										
					163	76SW	JNT	0.3+	0.0	3	4	MOD	-	MOD	-	-	
					025	89SE	JNT	0.4+	999	-	1	REG	-	MOD	-	-	
					029	62NW	JNT	3+	0.1	5	3	REG	-	SMO	-	-	
					119	54SW	JNT	0.4+	999	40	6	REG	-	MOD	LM	LOW	
					033	83SE	JNT	1+	0.0	50	3	REG	-	SMO	-	-	
					039	83SE	JNT	2+	999	-	1	REG	-	SMO	-	-	
	607520	71020	570	GRN	110	73NE	FOL										
					016	74SE	JNT	0.3+	999	-	1	REG	-	MOD	LM	HI	
					154	72NE	JNT	1+	999	10	2	MOD	-	MOD	LM	MOD	
					032	40NW	JNT	1+	999	10	2	REG	-	MOD	LM	MOD	
					023	62NW	JNT	0.3+	999	-	1	REG	-	SMO	LM	MOD	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	608125	70705	535	GRN	143	86NE	JNT	0.3+	999	5	3	REG	-	MOD	LM	HI	
					005	78SE	JNT	0.5+	999	20	2	REG	-	MOD	LM	HI	
					021	86SE	JNT	0.3+	0.0	5	3	REG	-	MOD	LM	HI	
					037	78SE	JNT	0.5+	0.1	5	4	REG	-	MOD	LM	HI	
					040	62SE	JNT	1+	0.1	10	8	REG	-	MOD	LM	HI	
					025	48NW	JNT	0.3+	999	-	1	REG	-	MOD	LM	MOD	
					054	60NW	JNT	0.2+	999	-	1	REG	-	MOD	LM	MOD	
					030	79NW	JNT	0.2+	999	-	1	REG	-	MOD	LM	MOD	
					030	78SE	JNT	0.4+	0.1	2	4	REG	-	MOD	LM	MOD	
					135	40NE	JNT	0.3+	999	2	2	REG	-	MOD	LM	MOD	
					048	78NW	JNT	0.2+	999	20	2	REG	-	MOD	LM	MOD	
					034	81SE	JNT	0.4+	999	40	3	REG	-	MOD	LM	MOD	
					042	88SE	JNT	0.3+	0.2	3	2	REG	-	MOD	LM	HI	
					118	43NE	JNT	0.4+	999	20	4	REG	-	MOD	LM	HI	
					000	80E	JNT	0.2+	999	-	1	REG	-	RUF	LM	HI	
					128	88NE	JNT	0.3+	999	15	2	REG	-	RUF	LM	HI	
					110	51SW	JNT	0.4+	0.4	5	4	MOD	-	RUF	LM	HI	
					051	32NW	JNT	0.4+	999	2	3	REG	-	MOD	LM	HI	
					017	55NW	JNT	0.3+	999	20	3	REG	-	SMO	LM	MOD	
					051	59NW	JNT	0.3+	999	20	2	REG	-	MOD	LM	HI	
	607520 (approx.)	70800	645	GRN	138	51NE	JNT	0.3+	999	4	3	REG	-	MOD	LM	MOD	
					176	62NE	JNT	1	999	-	1	MOD	-	MOD	LM	MOD	
					005	58NW	JNT	0.4+	0.4	20	3	REG	-	MOD	LM	MOD	
					020	85SE	JNT	0.2+	0.2	10	3	REG	-	MOD	LM	LOW	
	607450 (approx.)	70640	690	GRN	014	88SE	JNT	1+	999	1	3	REG	-	MOD	LM	LOW	
					019	61NW	JNT	0.5+	999	25	3	REG	-	MOD	LM	MOD	
					135	84SW	JNT	1+	999	20	2	MOD	-	MOD	LM	MOD	
					030	89SE	JNT	1.5+	999	25	5	MOD	-	MOD	LM	MOD	
					097	74SW	JNT	0.3+	999	40	3	MOD	-	MOD	LM	LOW	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607450 (approx.)	70640	690	GRN	020	66NW	JNT	2+	0.2	20	3	REG	-	MOD	LM	LOW	
					109	80SW	JNT	2+	999	10	3	MOD	-	MOD	LM	MOD	
					118	84SW	JNT	2+	0.0	10	4	REG	-	MOD	LM	MOD	
					018	74SE	JNT	2+	999	35	2	REG	-	SMO	LM	LOW	
					020	85SE	JNT	2+	999	50	4	REG	-	MOD	LM	LOW	
					128	78SW	FOL										
					128	78SW	JNT	1+	0.2	30	3	REG	-	MOD	LM	LOW	
					018	68NW	JNT	3+	0.1	30	2	REG	-	MOD	LM	LOW	
					018	86SE	JNT	2.5+	999	20	5	REG	-	MOD	LM	LOW	
					066	63SE	JNT	2+	999	-	1	REG		MOD	LM	LOW	
					124	78SW	JNT	3+	999	10	3	MOD	-	MOD	LM	LOW	
					029	74NW	JNT	1.5+	0.2	10	8	REG	-	MOD	LM	LOW	
					124	70SW	JNT	1+	999	-	1	MOD	-	MOD	LM	LOW	
					014	70NW	JNT	0.5+	0.1	12	5	REG	-	SMO	LM	LOW	
					025	78NW	JNT	1+	999	10	4	MOD	-	MOD	LM	LOW	
					006	81NW	JNT	1+	0.1	10	10	REG	-	SMO	LM	LOW	
					013	65NW	JNT	2+	0.2	10	17	REG	-	SMO	LM	LOW	
					135	59NE	JNT	3+	0.4	40	3	REG	-	SMO	LM	LOW	
					089	55SE	JNT	0.3+	999	-	1	MOD	-	MOD	-	-	
	607600	70650	720	GRN	025	88SE	JNT	5+	999	-	1	REG	-	SMO	-	-	
					030	62NW	JNT	2+	0.2	-	1	REG	-	SMO	-	-	
					020	40NW	JNT	2+	0.2	20	2	REG	-	SMO	-	-	
					020	61NW	JNT	4+	999	15	4	REG	-	SMO	-	-	
					093	88SW	SHR	1+	0.1	5	5	MOD	-	MOD	-	-	
					110	90	FOL										
					015	75SE	JNT	5+	999	-	1	REG	-	SMO	-	-	
					017	53NW	JNT	5+	0.4	-	1	REG	-	SMO	-	-	
					028	76NW	JNT	2+	0.2	50	2	REG	-	SMO	-	-	
					130	72SW	JNT	3+	0.5	40	5	REG	-	MOD	-	-	
					168	50NE	JNT	3+	999	100	2	REG	-	SMO	-	-	

LOCATION: Southeast Side-Above Camp

DATE: 81-8-28

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TMO322	607500	70300	840	GRN	005	26NW	JNT	7+	0.2	40	7	REG	-	SMO	LM	LOW	
					005	79NW	JNT	2+	0.1	100	2	REG	-	SMO	LM	LOW	
					069	60NW	JNT	2+	0.1	100	2	REG	-	SMO	LM	LOW	
					132	70SW	JNT	1+	0.2	5	4	REG	-	MOD	LM	LOW	
					006	67NW	JNT	11+	0.4	40	7	REG	-	SMO	LM	LOW	
					125	78SW	FOL										
					125	78SW	JNT	1.5+	0.2	100	3	MOD	-	MOD	LM	MOD	
					004	63NW	JNT	2+	0.3	-	1	REG	-	SMO	LM	LOW	
					085	51SE	JNT	3+	0.1	20	5	REG	-	SMO	LM	LOW	
					145	61SE	JNT	2+	0.1	10	4	REG	-	SMO	LM	LOW	
					119	36NE	JNT	5+	0.5	40	2	REG	-	SMO	LM	LOW	
					160	58SW	JNT	3+	0.0	10	5	REG	-	SMO	-	-	
					011	90	JNT	0.5+	0.0	10	4	REG	-	SMO	-	-	

LOCATION: Southeast Side-Above Camp

DATE: 81-9-15

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0331	607400	70230	735	GRN	022	60NW	JNT	2+	0.3	25	5	REG	-	SMO	-	-	
					153	43NE	JNT	3+	0.4	30	3	MOD	-	MOD	-	-	
					025	81SE	JNT	3+	0.1	-	1	REG	-	SMO	-	-	
					009	88SE	JNT	0.3	0.1	-	1	IRR	-	SMO	-	-	
					026	72SE	FLT	5+	999	10	2	REG	-	SMO	CHL	MOD	
					178	56SW	JNT	3+	0.1	60	5	REG	-	SMO	-	-	
					114	78NE	JNT	0.6	0.0	20	2	IRR	-	RUF	-	-	
					012	78NW	JNT	1	0.0	-	1	REG	-	SMO	-	-	
					137	66NE	JNT	0.3	0.0	-	1	REG	-	SMO	-	-	
					063	40NW	JNT	0.1	0.0	-	1	REG	-	SMO	-	-	
					103	88NE	JNT	0.3	999	-	1	MOD	-	MOD	-	-	
					008	58NW	JNT	7+	0.1	10	8	REG	-	SMO	-		SOME SH'D
					154	37NE	VEN	1+	0.1	8	2	MOD	-	-	-	-	QTZ
					134	62SW	VEN	1+	0.1	-	1	MOD	-	-	-	-	QTZ
					087	77SE	JNT	0.3+	999	-	1	IRR	-	RUF	-	-	
					020	82NW	JNT	0.3+	999	200	2	REG	-	SMO	-	-	
					108	78NE	JNT	0.1+	0.1	8	3	REG	-	SMO		-	
					097	52NE	JNT	0.1	999	-	1	IRR	-	MOD	-	-	
					118	82NE	JNT	0.1	999	-	1	IRR	-	RUF	-	-	
					093	38SW	JNT	0.3+	999	-	1	REG	-	MOD	-	-	
					065	44SE	JNT	0.3+	999	-	1	MOD	-	MOD	-	-	
					141	71SW	JNT	0.2	999	15	2	MOD	-	MOD	-	-	
					112	80SW	JNT	0.3	0.1	15	4	MOD	-	MOD	-	-	
					113	76SW	JNT	0.3	0.1	-	1	REG	-	MOD	-	-	
					178	80SW	JNT	5+	0.1	13	4	REG	-	SMO	-	-	
					101	88NE	JNT	0.3+	999	-	1	MOD	-	MOD	-	-	
					104	83SW	JNT	0.3+	999	15	3	MOD	-	SMO	-	-	
					092	83NE	JNT	0.3+	999	30	3	MOD	-	SMO	-	-	
					006	39SE	VEN	0.2	0.1	-	1	REG	-	-	-	-	QTZ
					108	32NE	JNT	0.3+	999	-	1	MOD	-	SMO	-	-	
					019	82NW	JNT	0.3+	999	2	2	REG	-	SMO	-	-	

LOCATION: Southeast Side-Above Camp

DATE: 81-9-15

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607400	70230	735		157	83NE	JNT	3+	999	-	1	REG	-	SMO	-	-	
					138	83NE	JNT	1+	0.1	5	2	MOD	-	MOD	-	-	
					073	85NW	JNT	0.3	0.0	8	2	MOD	-	MOD	-	-	
					004	38NW	JNT	0.3+	0.1	-	1	MOD	-	MOD	-	-	
					101	84SW	JNT	0.1	0.0	-	1	REG	-	SMO	-	-	
					094	72NE	JNT	0.3	0.0	30	2	MOD	-	MOD	-	-	
					094	68SW	JNT	0.3	0.0	-	1	MOD	10	MOD	-	-	
					144	84NE	JNT	0.2	0.0	-	1	REG	-	MOD	-	-	
					025	72SE	JNT	6+	999	-	1	MOD	-	MOD	-	-	
					014	80SE	JNT	2+	999	-	1	REG	-	SMO	-	-	
					162	30NE	JNT	3+	0.3	-	1	REG	-	SMO	-	-	
					097	76NE	JNT	2+	999	-	1	MOD	-	MOD	-	-	
					106	87NE	JNT	1	999	-	1	MOD	-	MOD	-	-	
					142	81SW	JNT	1+	0.1	-	1	IRR	-	MOD	-	-	
					155	84SW	JNT	0.3	0.1	-	1	MOD	-	MOD	-	-	
					021	59NW	JNT	2+	0.1	10	8	REG	-	SMO	-	-	
					021	59NW	FLT	4+	1.0	30	2	REG	-	SMO	-	-	GOUGE 1 cm.
					012	90	JNT	0.3+	999	-	1	MOD	-	RUF	-	-	
					067	89NW	JNT	0.3+	999	-	1	IRR	-	RUF	-	-	
					110	83NE	JNT	0.3	999	30	3	MOD	-	SMO	-	-	
					018	50NW	JNT	3+	999	20	2	REG	-	SMO	-	-	
					154	53NE	VEN	2+	2.0	-	1	MOD	-	-	-	-	QTZ
					097	82NE	JNT	4+	0.0	2	7	MOD	-	MOD	-	-	
					012	62NW	JNT	3+	0.1	20	4	REG	-	SMO	-	-	
					014	72SE	JNT	1+	999	-	1	MOD	-	SMO	-	-	
					016	83SE	JNT	6+	999	30	2	MOD	-	SMO	-	-	
					034	83NW	JNT	4+	999	-	1	REG	-	SMO	-		
					100	83NE	JNT	0.3+	0.0	5	3	MOD	-	MOD	-		

LOCATION: Southeast Side-Above Camp

DATE: 81-9-15

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607290 (approx.)	71260	505	GRN	099	89NE	FLT										SH'D 81-TM-70
					123	58NE	FLT										SH'D
	607270 (approx.)	71320	480	GRN	009	48NW	JNT	-	-	-	-	-	-	-	-		
	607500 (approx.)	70470	715	GRN	004	67NW	JNT										81-TM-73
					172	34SW	JNT										
					172	61NE	JNT										SOME GNEISSIC 81-TM-74
	607675 (approx.)	70635	715	GRN	024	84SE	JNT										
	606450 (approx.)	69705	615	QZDI	120	82SW	FOL										

LOCATION: Affliction Creek

DATE: 81-9-16

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0334	611700	58835	1380	QM	021	72SE	JNT	3+	999	2	4	IRR	-	MOD	LIM	MOD	
					082	82SE	JNT	0.3	0.1	10	2	IRR	-	MOD	LIM	HIGH	
					092	71NE	JNT	0.3	0.1	2	2	IRR	-	MOD	LIM	LOW	
					127	77SW	JNT	0.3	0.1	-	1	IRR	-	MOD	LIM	LOW	
					000	00	JNT	1.0	0.1	-	1	IRR	-	RUF	LIM	LOW	
					142	75NE	JNT	0.3	999	-	1	IRR	-	MOD	LIM	LOW	
					121	73NE	JNT	3+	999	3	2	IRR	-	SMO	LIM	MOD	
					086	72NW	JNT	0.3+	0.2	-	1	MOD	-	MOD	LIM	LOW	
					100	87NE	JNT	0.3+	0.4	5	2	MOD	-	MOD	LIM	MOD	
					056	67SE	JNT	0.3+	999	15	2	MOD	-	MOD	LIM	LOW	
					013	41NW	JNT	4+	0.0	1-10	5	MOD	-	MOD	LIM	LOW	
					177	77NE	JNT	0.3+	999	4	2	IRR	-	MOD	LIM	LOW	
					092	81NW	JNT	0.3+	0.1	2	7	MOD	-	SMO	LIM	LOW	
					164	02SW	JNT	0.3+	999	15	2	MOD	-	MOD	LIM	LOW	
					157	38NE	JNT	0.2+	999	30	2	MOD	-	MOD	-	-	
					167	84SW	JNT	2+	999		1	IRR	-	MOD	LIM	MOD	
					037	68SE	JNT	0.2+	999	5	3	MOD	-	MOD	LIM	MOD	
					040	85SE	JNT	0.2+	0.2	3	3	MOD	-	MOD	LIM	MOD	
					070	76SE	JNT	0.3+	0.0	-	1	IRR	-	MOD	LIM	MOD	
					011	40NW	JNT	2.0+	0.1	1-25	9	REG	-	SMO	-	-	
					008	49SE	JNT	0.3+	999	-	1	REG	-	MOD	LIM	LOW	
					098	88NE	JNT	0.3	999	-	1	MOD	-	MOD	LIM	LOW	
					102	47NE	JNT	0.3	0.1	1	2	MOD	-	MOD	-	-	
					002	45SE	JNT	0.6+	0.1	10	2	REG	-	MOD	LIM	LOW	
															CHL		
					068	87NW	JNT	0.3+	999	5-50	3	MOD	-	MOD	LIM	MOD	
					031	73NW	JNT	0.3+	999	-	1	REG	-	MOD	-	-	
					121	74NE	JNT	0.3+	999	-	1	REG	-	SMO	-	-	
					147	76NE	JNT	0.3+	0.3	-	1	REG	-	MOD	-	-	

LOCATION: Affliction Creek

DATE: 81-9-16

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0335	611800	59045	1300	QZDI	082	63NW	JNT	1.0+	0.3	15	2	MOD	-	SMO	-	-	81-TM-80
					039	40NW	JNT	2.0+	0.5	50	4	REG	-	MOD	-	-	
					011	57SE	JNT	0.5+	0.1	100	2	MOD	-	MOD	-	-	
					154	83SW	JNT	0.3	0.0	-	1	MOD	-	RUF	-	-	
					164	75NE	JNT	0.3	0.0	5	4	MOD	-	MOD	-	-	
					152	73SW	JNT	1.0+	0.0	-	1	MOD	-	MOD	-	-	
					085	60SE	JNT	1.0+	999	-	1	IRR	-	RUF	-	-	
					039	87SE	JNT	0.6+	999	-	1	MOD	-	MOD	-	-	
					003	30NW	FOL	-	-	-	-	-	-	-	-	-	
					045	36NW	JNT	1.0+	0.0	5	7	MOD	-	MOD	-	-	
					092	60NE	JNT	0.5+	999	-	1	MOD	-	SMO	-	-	
					137	82SW	JNT	0.3+	999	15	3	MOD	-	MOD	-	-	
					123	81NE	JNT	0.3	0.0	1	7	MOD	-	-	-	-	
					054	43NW	JNT	1.0	0.1	2	3	MOD	-	MOD	-	-	
					145	74SW	JNT	1.0	0.1	-	1	MOD	-	MOD	-	-	
					131	84NE	JNT	1.0	0.2	-	1	IRR	-	MOD	-	-	
					085	68NW	JNT	1.0+	0.0	-	1	REG	-	MOD	-	-	
					155	75NE	JNT	0.3	999	-	1	MOD	-	MOD	-	-	
					082	75NW	JNT	0.5+	0.0	15	4	MOD	-	MOD	-	-	
					032	20NW	JNT	1.0	0.0	6	4	MOD	-	MOD	-	-	
					070	84SE	JNT	1.0	999	8	2	IRR	-	MOD	-	-	
					171	21SW	JNT	1.0+	0.2	30	4	MOD	-	MOD	-	-	
					062	23NW	JNT	0.5+	0.2	-	1	MOD	-	MOD	-	-	
					152	39NE	JNT	1.0+	0.3	-	1	MOD	-	MOD	-	-	
					122	75NE	JNT	0.2	0.1	2	6	IRR	-	RUF	-	-	
					032	80NW	JNT	1.0+	999	-	1	MOD	-	MOD	-	-	
					037	54NW	JNT	1.0+	999	-	1	REG	-	MOD	LIM	LOW	
					135	82SW	JNT	0.5+	0.5	15	3	MOD	-	MOD	-	-	
					156	54SW	JNT	0.3+	0.0	-	1	REG	-	MOD	-	-	
					028	70NW	JNT	0.3+	0.0	5	3	REG	-	MOD	-	-	

LOCATION: Affliction Creek

DATE: 81-9-16

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611700	58835	1380	QM	155	72NE	JNT	0.8	999	15	4	MOD	-	SMO	LIM	MOD	81-TM-76
																	81-TM-77
					054	90	JNT	0.5	999	-	1	REG	-	SMO	LIM	LOW	
					060	85SE	JNT	0.5	999	70	2	REG	-	SMO	LIM	LOW	
					164	62SW	JNT	0.3	0.5	-	1	REG	-	SMO	-	-	
					100	76NE	JNT	0.5	999	-	1	REG	-	MOD	LIM	MOD	
					115	20NE	JNT	0.2	999	-	1	REG	-	MOD	LIM	MOD	
					052	75SE	JNT	2	0.25	2.5	2	REG	-	SMO	LIM	LOW	
					010	65SE	JNT	0.3	999	-	1	REG	-	MOD	LIM	LOW	
					067	75SE	JNT	1	999	2-40	4	REG	-	SMO	LIM	HIGH	
					120	67NE	JNT	0.2	999	-	1	REG	-	MOD	LIM	HIGH	
					057	80SE	JNT	3	999	10	5	REG	-	SMO	LIM	LOW	
					163	70NE	JNT	2	999	10-60	4	MOD	-	RUF	LIM	MOD	
					160	74NE	JNT	20	0.25	5	5	MOD	-	MOD	LIM	LOW	
					067	59SE	JNT	0.5	999	30	2	REG	-	SMO	LIM	MOD	
					075	78SE	JNT	0.3	999	-	1	REG	-	SMO	LIM	MOD	
					125	82NE	JNT	0.4	0.5	-	1	REG	-	SMO	LIM	LOW	
					137	50NE	JNT	0.4	999	10-20	3	REG	-	RUF	LIM	MOD	
					145	70NE	JNT	1	999	5-15	5	IRR	-	RUF	LIM	HIGH	
					063	82SE	JNT	1	999	20-50	8	REG	-	SMO	LIM	MOD	
					170	55NE	JNT	0.5	999	20-30	4	REG	-	MOD	LIM	MOD	
					152	65SW	JNT	-	-	-	-	-	-	-	-	-	

LOCATION: Affliction Creek

DATE: 81-9-16

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611800	59045	1300	QZDI	079	67NW	JNT	0.7	999	-	1	REG	-	SMO	-		
					163	58NE	JNT	0.4	999	50	2	REG	-	MOD	-		
					175	47SW	JNT	30+	1.0	10-30	5	REG	-	MOD	-		
					048	42NW	JNT	0.2	999	-	1	MOD	-	RUF	-		
					138	70NE	JNT	0.2-0.4	999	5	4	MOD	-	RUF	-		
					105	79NE	JNT	0.5	999	-	1	MOD	-	MOD	-		
					118	67NE	JNT	0.4	999	-	1	MOD	-	MOD	-		
					121	85NE	JNT	0.5	999	10	2	REG	-	SMO	LIM	LOW	
					163	31SW	JNT	0.2	999	3-10	7	REG	-	MOD	LIM	MOD	
					125	48NE	JNT	0.3-10+	999	100	3	REG	-	RUF	LIM	LOW	
					060	85NW	JNT	0.3	999	10	3	REG	-	MOD	-	-	
					171	59SW	JNT	0.2	999	5	4	MOD	-	RUF	LIM	MOD	
					159	73SW	JNT	3	999	15	3	IRR	-	RUF	LIM	MOD	
					001	69SE	JNT	10+	999	20	4	MOD	-	RUF	LIM	LOW	
					091	89NE	JNT	0.6	999	-	1	IRR	-	RUF	LIM	LOW	
					124	55SW	JNT	0.4	999	-	1	REG	-	MOD	LIM	LOW	
					165	58NE	JNT	0.5	999	-	1	IRR	-	RUF	LIM	MOD	
					107	78NE	JNT	0.2	999	-	1	MOD	-	RUF	LIM	MOD	
	611910	59150	1240	QZDI	003	73SE	JNT	-	-	-	-	-	-	-	-	-	
					063	56SE	JNT	-	-	-	-	-	-	-	-	-	

LOCATION: Affliction Creek

DATE: 81-9-17

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	611855	59400	1260	QZDI	143	65SW	FOL										81-TM-84
					058	79NW	JNT										81-TM-85
					132	85NE	JNT										
	611920	59470	1250	QZDI	085	86SE	FOL										81-TM-86
				GN	135	88SW	FOL										81-TM-87
																	81-TM-88
					068	72NW	JNT										
	612335	59635	1150	SLT	109	68SW	FOL										
	612550	59725	1100	SLT	128	58NE	FOL										
	612600	59755	1070	SLT	130	72NE	FOL										
	612600	59750	1060	SLT	148	82NE	FOL										
	612980	59900	1020	GN	140	66NE	JNT										

LOCATION: Southeast Side-Above Camp

DATE: 81-9-18

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607515	69970	950	MARB	121	61SW	BED	4+	0.1	3	4	MOD	-	MOD	-	-	
					043	22NW	JNT	0.3	0.1	30	2	IRR	-	RUF	-	-	
					103	26NW	JNT	2+	0.1	4	9	MOD	-	SMO	-	-	
					035	16NW	JNT	1	0.1	30	4	IRR	-	MOD	-	-	PHYLLITIC TUFF-1.5m
					030	83SE	JNT	0.1	999	0.5	5	MOD	-	MOD	-	-	
					035	71SE	JNT	3+	999	15	3	MOD	-	MOD	-	-	
					120	19NE	JNT	2+	0.2	25	4	IRR	-	SMO	-	-	
					028	28NW	JNT	2+	0.1	25	2	MOD	-	MOD	-	-	
					162	67SW	JNT	1+	0.0	-	1	REG	10	SMO	-	-	
					136	65SW	BED	3+	0.2	20	5	REG	-	SMO	-	-	

LOCATION: Southeast Side-Above Camp

DATE: 81-9-18

P#	STATION (m) N	E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
TM0401	607515	69970	950	MARB	150	40SW	FLT	2+	0.1	-	1	MOD	-	SMO	LIM	MOD	3cm
					155	76SW	FLT	2+	10	-	1	MOD	-	-	GOUGE	-	
					140	66SW	BED	3+	-	-	-	MOD	-	SMO	-	-	
					137	69SW	BED	2+	999	8	5	MOD	-	SMO	-	-	
					048	52NW	JNT	1+	999	15	2	MOD	-	RUF	-	-	
					098	90	JNT	0.5+	999	30	2	MOD	-	RUF	-	-	
					151	62SW	BED	0.1+	999	3	3	MOD	-	MOD	-	-	
					054	75NW	JNT	1+	999	2	3	MOD	-	MOD	-	-	
					001	87SE	JNT	1+	0.2	12	2	MOD	-	MOD	-	-	
					000	75E	JNT	0.2+	0.0	-	1	MOD	-	MOD	-	-	
					089	76NW	JNT	0.1+	999	-	1	IRR	-	RUF	-	-	
					144	62SW	BED	4+	0.1	3	4	IRR	-	SMO			
					155	73NE	JNT	0.3+	0.1	-	1	MOD	-	MOD	-	-	
					027	57SE	BED	0.2+	0.1	-	1	IRR	-	MOD			
					086	10NW	JNT	0.3+	0.1	4	2	MOD	-	SMO	-	-	QUARTZITE
					172	55NE	BED	4+	0.1	0.1	9	MOD	-	SMO	SHEARED	PHYLLITE	0.8m
					093	88SW	JNT	0.3+	999	4	2	MOD	-	RUF	-	-	
					163	60SW	BED	6+	6	-	1	REG	-	MOD	SHEARED	10cm	
					138	43NW	JNT	0.4	0.1	20	6	MOD	-	MOD	-	-	
					122	67SW	BED	5+	2	6	4	REG	-	MOD	PHYLLITIC	0.6m	
					124	52NE	JNT	0.2+	0.1	-	1	IRR	-	MOD	-	-	
					157	60SW	BED	5+	0.1	4	4	REG	-	MOD	-	-	
					054	59NW	JNT	4+	999	-	1	IRR	-	RUF	SOLUTION		
					146	54SW	BED	4+	1.2	-	1	IRR	-	RUF	SOLUTION		
					134	72NE	JNT	2	0.5	-	1	IRR	-	RUF	SOLUTION		
					136	66NE	JNT	0.2+	1.0	-	1	REG	-	MOD	-	-	

NOTE: Fractures lie along the bedding planes.

LOCATION: Southeast Side-Above Camp

DATE: 81-9-18

P#	STATION N	(m) E	ELEV (m)	ROCK	FRACTURE STR	DIP	TYP	LNG (m)	WID (cm)	SPACE (cm)	#	REG	WV	RUF	ALTERATION TYPE	INT	REMARKS
	607855	69935	1040	GRN	002	59NW	FOL										81-TM-93
	607790	69955	1040	GRN	120	84SW	JNT										
	607710	69970	1035	GRN	145	72SW	JNT										
					044	77NW	JNT										
					043	71NW	FLT										GOUGE 8 cm. wide
					126	66SW	FOL										
					124	67SW	BED										
				MARB	118	83SW	BED										
					026	76SE	JNT										
	607630	69975	1030	MARB	126	77SW	BED										
	697555	69955	1015	MARB	147	82SW	BED										
	607485	69865	1000	MARB	154	54SW	BED										
				DIO	162	82SW	FLT										81-TM-94
					066	66NW	JNT										